

International Trade and Finance

DECO503

Edited by:
Dr.Pavitar Parkash Singh



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INTERNATIONAL TRADE AND FINANCE

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SYLLABUS
International Trade and Finance

Objectives:

The course provides an understanding of international trade and investment theories. It is designed to better understand the implications of such theories as they relate to international trade management. It helps students deal with the opportunities and challenges created by the global environment.

| Sr. No. | Content |
|----------------|---|
| 1 | Trade as an engine of growth, Measurement of gains from trade, Free Trade Theory- Absolute advantage, comparative advantage & opportunity cost, Modern theories of international trade: Theorem of factor price equalization, H-O Theory, Kravis & Linder theory of trade. |
| 2 | Role of dynamic factors : tastes, technology & factor endowments in trade, Rybszynski Theorem, Causes of emergence & measurement of intra industry trade and its impact on developing economies, |
| 3 | Tariff, Quotas & non-tariff barriers: Definitions & types, Economic effects of Tariff & Quotas on national income, output & employment, Political economy of non-tariff barriers and their implication. |
| 4 | Balance of Payments and Balance of Trade: Meaning & components, Equilibrium & Dis-equilibrium in BOP, BOP Adjustment: Monetary approach, Exchange Rate: meaning & components, |
| 5 | Theories of Determination of Exchange rate (PPP, Monetary), Theories of Determination of Exchange rate (Portfolio & Balance of Payment), Process of adjustments : Gold standard, Fixed Exchange Rates & Flexible Exchange Rates, Merits & demerits of Fixed & Flexible exchange rate. |
| 6 | Expenditure reducing & expenditure switching policies, Forms of Economic cooperation, Static & Dynamic effects of a custom union & free trade organization, |
| 7 | SAARC/SAPTA, ASEAN, Regionalism: EU & NAFTA, |
| 8 | Multilateralism & WTO, International Monetary System, East Asian crisis & lessons for developing countries, |
| 9 | FDI : types & issues, International Debt crisis, Functions of WTO/GATT, UNCTAD, IMF, World Bank & Asian Development Bank |
| 10 | India's trade policy: recent developments, India's Balance of Payment |

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Unit 1 : Trade as an Engine of Growth

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Objectives

After reading this Unit students will be able to:

- Describe the Classical and Post Classical Period of International Growth and Trade.
- Explain the Models of Endogenous Growth and International Trade.

Introduction

The promotion of free trade is one of the oldest policy implications offered by international economic theory. While significant disconnects have historically existed between the politics and the economics of trade policy, the rapid economic growth experienced by the export-oriented Asian countries during the 1960s and 1970s amidst a largely stagnating and trade-restrictive developing world provided a precedent for effective development policy, especially within the world's less developed countries (LDCs). Free trade arguments have since been championed by a majority of global institutions, including the International Monetary Fund (IMF hereafter), the International Bank for Reconstruction and Development (IBRD) or World Bank, the Organization for Economic Co-operation and Development (OECD hereafter), and the World Trade Organization (WTO hereafter). The argument goes that a reduction in trade barriers will induce greater economic efficiency within LDCs by offering cheaper world prices to domestic consumers (increasing consumer welfare) while creating conditions of competition for domestic producers (forcing domestic production to shift towards the most efficient sectors based upon availability of domestic factors).

1.1 A Brief Historical Sketch

It can be said that the positive effects of International Trade (IT) on Economic Growth (EG) were first pointed out by Smith (1776). This idea prevailed until World War II (WWII), although with relative hibernation during the 'marginalist revolution'. After WWII, the introverted and protectionist EG experiments had some significance, especially in Latin America. From the 60's on, owing to the failure of those experiments and to the association of quick EG with the opening of IT and the consequent international specialization in several countries, as well as to the results of many studies based on the neoclassical theories of EG and IT, a new decisive role was given to IT as EG's driving force.

However, although the dominant theoretical position tended, from the beginning (with the Classics), to indicate a positive relation between IT and EG, many studies linked the gains of IT only with static effects. But Baldwin (1984), for example, concluded, in a survey of empirical studies, that the static effects were of little significance. The debate has widened in the last decades, precisely in the direction

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of pointing out and stressing the dynamic effects of IT. The theoretical development afforded by the models of endogenous EG [especially after the works of Romer (1986) and Lucas (1988)], which stimulated the creation of empirical studies, moved toward an integrated analysis of the EG and IT theories. So, the classical tradition, apparently interrupted by the neoclassical separation of those two areas of the theory, seems to have been recovered, assigning, as a result, a decisive role to IT on the countries' rate of EG.

The recognition of this importance has even led to the ceaseless appearance of proposals from international organisations, such as the World Bank (WB) and the United Nations (UN). As a result, many countries began to reduce commercial barriers and other controls of economic activity and obtained a significant (and lasting) increase in the rate of EG, which suggests that extroversion has a dynamic effect on the economy, helping to speed up the rate of EG. Moreover, the processes of economic integration intensified.

Aims and Structuring of the Work

The EG theory analyzes, at an aggregate level, the evolution of the real product and its distribution (intra and inter countries). In general, the models regard that product as created with a limited and aggregate number of factors. Models which are initially designed to explain the EG of the Developed Countries (DCs) are, in general, 'supply side' models because it's admitted that, in the long-term, the product of equilibrium is located in the proximity of the potential product, and because the latter depends on the availability of the factors and technological level. The main objectives of those models are to explain the variations of the factors and of the production function itself (*i.e.*, of the way on which the product depends on the factors) and account the effects that these variations have on the evolution and distribution of production.

Our aim is to analyze the impact of commercial and technological effects (ignoring the financial component), resulting from IT, on the physical accumulation of productive factors and on its improvement (efficiency gains). In other words, in the rate of EG, during the evolution of economic growth theory. We then underscore studies that manifestly convey the 'effect of EG' (changes that modify, in a durable way, the rates of EG and its tendency in the long-term), instead of simple 'level effects' (changes that influence the EG only in the short-term).



Did u know?

Ricardo (1817) presented a 'dynamic model of EG' with three forces and two restrictions. He characterized the progressive states as having high savings, capital accumulation, production, productivity, benefits and labour demand forcing the increase of wages and demographic growth.

The structure which is followed in this paper observes the temporal evolution and the status that we think commercial and technological aspects have in what concerns the EG models. In effect, it seems to us that in the 'classical period' the EG and IT theories were linked (section 2), that in the 'neoclassical period' there was a tendency toward their separation (section 3), and that recently, with the new endogenous EG approaches, they were again considered jointly (section 4). Finally, in section 5 we present the main conclusions.

1.2 Classical Period : International Trade and Growth

Since the classics don't distinguish the questions of EG from the questions of IT, the examination of this problem leads us to the classics' main models of IT. However, given the aim of this work, we attempt to advance on those models which basically discuss the 'static gains of the IT'.

As far as the interaction between IT and EG is concerned, we found two main ideas to point out in Smith (1776). On the one hand, IT made it possible to overcome the reduced dimension of the internal market and, on the other hand, by increasing the extension of the market, the labour division improved and the productivity increased. The IT would therefore constitute a dynamic force capable of

intensifying the ability and skills of workers, of encouraging technical innovations and the accumulation of capital, of making it possible to overcome technical indivisibilities and, generally speaking, of giving participating countries the possibility of enjoying EG.

However, in view of the limitations of land, both in quantity and in quality, the additional alimentary resources were obtained in conditions of decreasing returns, in which the production is absorbed by wages in an increasing proportion, reducing the stimulation of new investments and, sooner or later, reaching the 'stationary state'. IT could delay the fall in the rate of profit. Apart from the contribution of IT, underestimating the importance of technology, he underestimated the positive effects of IT on technology.

Finally, among the Classics, Mill (1848) also explicitly reported the Classic point of view according to which the production resulted from labour, capital, land and their productivities. And just like Ricardo, he recognized that underlying the 'progressive state' there was the 'stationary state', and that ultimately the force capable of delaying this state was technical progress. Accordingly, the emphasis that Smith had placed on the extension of the market decreases, even though he also defended free trade among countries. We think that this situation was the result of the expectation created by the Industrial Revolution (IR) in regards to technical progress.

1.3 Post Classical Period : International Trade and Growth

The structure of this section takes into account the separation that occurred between IT and EG theories, and takes also into consideration some reactions to the classical and neoclassical theories. We begin with the neoclassical IT theory, proceed to the post-classical EG, before Solow, and then go on to the reactions. Afterwards comes the modern neoclassical theory of EG, and we conclude with the disclosure of extensions or works of synthesis, applications, and studies of commercial policies that discuss the theme under analysis.

Neoclassical International Trade

The followers of Ricardo ignored the question of the foundations of comparative advantages and didn't identify factors, resulting from IT, that could raise, in a lasting form, the rate of EG and its tendency in the long-term. In general, the changes introduced in the ricardian theory demonstrated the increase of welfare caused by IT, but ignored eventual gains in the rate of EG. It was in the context of neoclassical general equilibrium that the model of Heckscher (1919) and Ohlin (1933) appeared, whose contributions Samuelson (1948 and 1949) completed in the late 40's. In a rigid analysis of the model, we observe that it permits to advocate the opening of the countries to IT, showing that it is efficient, mutually beneficial and positive for the entire world. However, it limits the analysis to the static gains of welfare.

Post-classical Growth, before Solow

Generically, the classical economists gave us an idea of the race between the increase of the population and EG, with an uncertain winner. This version gradually disappeared with the IR, because the product increased from decade to decade in increasingly larger areas. That might be the reason why EG was no longer seen as a problem and why it wasn't amply pursued in the studies and writings of the following economists.



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Classical thought gave way to 'marginalism' from the 1870s onwards. This fact led to a 'new theory' (neoclassical) which, for some time, kept the main lines of the evolution of the economy in the long-term away from the studies.

Nevertheless, Marshall (1890) pointed out that "The causes which determine the economic progress of nations belong to the study of international trade". In effect, the expansion of the market that it

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represented led to the increase of global production and originated the increase of internal and external economies, which resulted in increasing income for the economy. But, although he understood the importance of those externalities, he also recognized the difficulties of his analytic treatment. Among his successors, only Young (1928) was concerned with EG when he considered, like Smith, that the dimension of the market limited the labour division (and therefore, the productivity). He also examined the inter-relation between industries in the process of EG, the creation of new industries due to the specialization resulting from the extension of the market, the importance of specialization and standardization in a vast market and the influence of this market on technological progress.

Another exception of this period's remarkable was Schumpeter (1912, 1942 and 1954), who repeated old points of view concerning the tendency of the profit to reach a minimum and the dependency of the rate of EG on capital accumulation. But he went further, distinguishing 'invention' (advancement of useful knowledge to production) from 'innovation' (economic activity of exploring that knowledge). Considering the latter as the central element of EG, he described the exigencies for a successful innovation, which included the need for markets opened to the exterior.

We conclude this subsection by mentioning some authors who made the restart of studies of dynamic themes — and, consequently, of the EG theory — easier, thus laying a good foundation for future investigations. Ramsey (1928) introduced the description of EG and the principle of research of an optimum EG. Cobb and Douglas (1928) presented production functions that became known as *Cobb-Douglas* production functions and which constituted an essential element of numerous models of EG. Harrod (1938 and 1948) and Domar (1937 and 1946) independently developed a model inspired in Keynes, which gave the research of EG an important momentum and a specific direction. Finally, Rosenstein-Rodan (1943) retrieved some of Young's ideas, when the problems of the Less Developed Countries (LDCs) attracted the economists' attention.

Reactions of Classical and Neoclassical Theories

Immediately after the end of WWII, the dominant position was questioned, namely in the case of the LDCs. Those reactions abandoned the classical and neoclassical orientation in considering hypotheses that were strange to them. The introverted and protectionist EG experiments of Latin America (industrialization for import substitution) also stood out, with rationalization and justification owing, first of all, to some structuralist economists [Prebisch (1949) — executive secretary of UN — and Singer (1950)] and to the UN Economic Commission for Latin America (ECLA). Essentially, they defended that the IT brought on negative consequences in the long-term for the LDCs because their specialization occurred in products with low demand income elasticity and, therefore, with a weak perspective of exports growth, and noticed a tendency for the constant deterioration of trade terms. Furthermore, this specialization entailed significant economic and social costs of adaptation to the evolution of the chain of IT.

Myrdal (1956 and 1957) sustained that IT didn't equal the remuneration of factors (in contradiction with the proposal of the neoclassical model) and that, unlike the industries of the DCs, the traditional industries of the LDCs remained weak. In short, the IT had some positive effects of diffusion on the LDCs, but in the long-term the negative effects remained because it stimulated a production of primary goods (plantations and mining enclaves) subject to irregular prices and demand. Lewis (1954 and 1969) and the marxist author Emmanuel (1969) decided, respectively, on the deterioration of the trade terms of the LDCs and on the existence of unequal trade biased against the LDCs. Nurkse (1959) also questioned the relevance of commercial trade between the DCs and the LDCs for the latter. Perroux (1978) considered that the LDCs were controlled. Consequently, the EG and the structural transformation were induced by the DCs, which will cause the loss of potential positive effects to the external world, in the long term.

Another group of (radical) authors observed the economic relations as a whole (chain of goods, services and capitals) : radical marxist visions [among others, Destanne de Bernis (1977) and Andreff (1981)] and the dependency theory [among others, Santos (1970), Frank (1970) and Amin (1970 and 1973)]. Basically, they defended that the underdevelopment was the consequence of the changes and deformations in the economic and social structures caused by the economic and social relation that existed with DCs.

Modern Neoclassical Theory of Growth

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In the late 50's and early 60's the interest for the EG reawakened with the recovery of the classical approach, according to which the production was a function of labour, capital, land and their productivities. The question of the 'accounting of EG' was also raised.

We can be pointed out 1956 as the year of birth of the 'modern neoclassical theory of EG' with Solow [and Swan (1956)]. The proposed model describes the relation between savings, accumulation of capital and EG based on a function of aggregate production (crucial supply), and there was a point of sustainable equilibrium (steady-state), which would be reached regardless of initial conditions. By increasing the productivity of the factors, the exogenous technical progress created positive effects on the process of accumulation and made the model compatible with a balanced growth path. In economic terms, this means that it took into account the convergence between economies. Moreover, along with the diffusion of technical progress there would be a convergence of the rate of EG per capita for a common steady-state. Consequently, it can be said that, by facilitating the diffusion of technical progress, the IT would be important for the LDCs.

As far as the 'accounting of EG' is concerned, Solow (1957) used the function of aggregate production as a starting point to measure the sources of EG in the United States. The rate of EG springs from labour and capital growth rates (which we call traditional sources), weighed by the respective participation in production and technical progress or total productivity of factors (TPF). The TPF resulted from the difference between the observed rate of EG and the part of that EG explained by the traditional sources (thus the designation 'residual of Solow'). Clearly he distinguished 'EG effects' (the three sources mentioned above) from 'level effects'. As a result, IT would, eventually, be a 'level effect' that would create positive effects in a transitory period of time.



What do you mean by Modern Classical Theory?

From Solow on, many economists considered the advance of knowledge to be a source of the 'residual'. However, the 'accountants of EG' (post Solow) included as sources the contributions of many elements such as the accumulation of 'human capital', economies of scale, the improved allocation of resources and the new generations of more productive machines [among others, Kendrick (1961), Denison (1962, 1974 and 1985) and Griliches and Jorgenson (1967)]. However, they didn't quantify the advancement in knowledge, leaving a residual factor unexplained. Furthermore, they didn't include IT, at least not explicitly, as a source of EG. We think that this situation is due to two factors that have already been mentioned. On the one hand, the separation that occurred between the theories of IT and EG, and on the other, the effects of IT on the level and not on the long-term rate of EG.

Theoretical Synthesis, Empirical Applications and Commercial Policies

As we have said, the works of the 'accounting of EG' widened the scope of studies of the sources and began studying different structural situations, abandoning therefore some neoclassical assumptions. Thus, studies done since the late 1960s considered, besides the traditional factors, other explanatory variables, maintaining the functional scheme proposed by Solow. In this context, in view of the need to determine the totality of growth sources and in view of the failure of introverted growth experiments, along with EG's association with the opening of IT, there was an increase in the research on trade and growth.

We present some theoretical studies and empirical applications which ensued, as well as studies/recommendations on the external commercial policy, whose defining characteristic resides in the fact that IT (above all the exporting component) is considered an explanatory variable of EG. They generally associate this situation with an improved allocation of resources (according to the comparative advantages), with a greater utilisation of productive capacity (which makes it possible to obtain economies of scale), with a greater propensity to implement technological improvement (in answering to the greater competition that they are subjected to), and with the higher level of employment created when compared to introverted strategies.

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Theoretical synthesis

We begin with the structuralist synthesis of EG of Kuznets (1972), Chenery and Syrquin (1975 and 1989) and Chenery *et al.* (1986). In brief, we noticed that what is most relevant is the fact that the observation of the process of EG of the country depends on the changes of factorial provision but also, and especially, on changes in demand, leading to the increase of the internal market, the substitution of imports and the variations of exports. In this sense, they defend that the TPF included, among other factors, the ones associated with the weight and countenance of IT.

In turn, in a brief reference to the analyses that underscore economic integration (more or less institutional), we mention, for instance, Young (1928), Florence (1948), Stigler (1951), Meade (1953), Svernilson (1954) and Scitovsky (1958). This group of authors took dynamic effects into account, namely those resulting from the increase in competition, from the gain of economies of scale, from changes in the level and nature of investments, from the increase of research expenses, from technical progress and from the elimination of the risk and uncertainty in trade.

Another example is Findlay's model (1980 and 1984) for the commercial relations between the (developed) North and the (underdeveloped) South. While integrating the neoclassical theories of IT and EG and at the same time recognizing the specificities of the LDCs, he assumes that the economy of the North is dynamically described by Solow's (1956) model of EG, except for the fact that it consumes an importable good in addition to its own product, while the economy of the South works according to Lewis' (1954) model of unlimited supply of labour. The terms of trade [based on Johnson (1967)] related EG in the two economies. So, the South had the IT as the principal driving force of EG. However, the rhythm of EG was determined by the (exogenous) EG rate of the North.

We conclude with the work of Feder (1982), where EG proceeded from the effects of the traditional sources and from the exporter sector performance. In brief, he considers that economies have two distinct productive sectors (exporter and non-exporter), differing in the final destination of productions and in the superiority of the productivity of the traditional factors in the exporter sector. He concluded that the rate of EG was explained by the rates of investment, labour growth and exports growth. He also presents a way of comparing the relative benefits of the allocation of resources to both sectors.

Empirical applications

In what concerns empirical applications, we immediately point out the structuralist inclination present in Hagen and Hawrylyshyn (1969), Chenery *et al.* (1970), Chenery *et al.* (1986) and Chenery and Syrquin (1989). These authors tested the significance of 'structuralist' variables, and decided on its relevance in explaining EG, particularly in samples of LDCs and in the years that followed the 60's. They demonstrate, with empirical studies, the evidence that the exports promote EG. Moreover, they claim that the existence of imports limits may reduce EG.

Feder (1982) proceeded with the empirical application of the developed framework, in semi-industrialized and marginally semi-industrialized countries, between 1964-1973.

He concludes that, statistically, its formulation was superior to the traditional neoclassical formulation. He also decided on the superiority of the marginal production of the factors in the exporter sector and on the externality of this sector over the other. Finally, he concluded that the allocation of one unit of capital to the exporter sector would create one marginal value for the economy superior to what would be obtained if it were affected by a non-exporter sector. Ram (1987) extended the analysis of Feder to the estimation of time-series for each country from a sample of 88 LDCs, in the years 1960-1985. The obtained regressions (being globally statistically significant) confirm the positive effect of the exporter sector, in about 70% of the countries.

We conclude by saying that even more sceptic empirical applications like those of Michaely (1977), Tyler (1981) and Dodaro (1991) do not challenge the positive effect of IT on EG, provided the countries have reached a certain minimum threshold of development.

The question of the international trade policies

In view of the failure of introverted EG experiments, of the success of extroverted EG experiences (case of countries of Southeast Asia) and of the dominant theoretical thought, the UN started to

recommend the opening to IT. They started the process with resolution 1707 of 1961 and continued, for example, in 1964 with the UN conference on trade and development (UNCTAD I). Both the General Agreement on Tariffs and Trade (GATT/WTO), through successive rounds of negotiations and the recommendation of the Organisation for Economic Cooperation and Development (OECD) worked also in favour of the liberalization of trade [see, for example, Arndt (1987, pp. 72-77)].

Little *et al.* (1970) considered the strategy of substitution of imports to be responsible for the existence of firms with high costs, charging consequently high prices for their products, which can only be purchased by high income consumers. Thereupon this situation would lead to the dependence of the enterprises on governmental decisions. Therefore they defended the promotion of exports.

Balassa (1978) compared the strategies of promotion of exports with those of substitution of imports. His work is based on Michalopoulos and Jay (1973). He considers a sample of 10 LDCs with different grades of use of those strategies (in 1960-1966 and 1966-1973). Taking neoclassical production function, he uses different versions functional forms, resulting from different exporting performances. From the results, he stressed, on the one hand, the significance of the export growth and, on the other hand, that the countries with rates of export growth higher than the average also registered the best performances. More recently, Balassa (1986 and 1987) analyzed the EG, between 1963-1984, of a group of LDCs that he divided in those turned toward the exterior and turned toward the interior, concluding that the former exceeded the performance of the latter, especially from the middle of the 70's on.

In 1985, Krueger observed that especially from the early 60's on, some LDCs reduced commercial barriers and other controls of economic activity and obtained a significant (and lasting) increase in the rate of EG. Namely, technological factors, of economic behaviour and political and economic consideration that involved dynamic effects (besides the static effects), helped explain the differences of performance among economies. Rajapatirana (1987), co-responsible for the *World Development Report* 1987, claimed again Krueger' arguments, considering that the IT allowed for dynamic gains when subjecting the internal production to international competition and also made it possible for countries to specialize in different branches of industry and production stages. Moreover, by allowing access to the DCs' technology, along with the expansion of exports, it stimulated internal technological development.

Finally, an obligatory reference concerning the divulgation at an academic, institutional and political level is the *World Development Report* 1987 of the WB. With data concerning 41 LDCs, considering two periods of time (1963-1973) and (1973-1985), it grouped the countries in four groups according to the commercial strategy adopted (strongly extroverted, moderately extroverted, moderately introverted and strongly introverted). As a result, it came to the conclusion that the extroverted strategy was superior and decided that the fastest, most sustainable and even most balanced (in terms of personal distribution of income) EG was obtained with this commercial orientation.

1.4 Models of Endogenous Growth and International Trade

In the field of the IT theory, the 'paradox of Leontief' originated debates and controversies leading to the appearance of new developments, which tried to explain the advantages not from the standpoint of a static natural situation but circumscribed to an evolutionary process, associated with the EG, where the structural characteristic from which they proceed is continuously under change. The EG theory also suffered significant developments with the models of endogenous EG. These models identify the moving force of growth, its respective dynamics and the forces that influence its accumulation (case of the IT). Thus, these placed the accumulation of human capital and the production and the diffusion of technological innovations in the forefront. The parallelism of these elements with the evolution of the theory of IT isn't accidental. In fact, the models of endogenous EG evolved towards an integrated analysis of the EG and of the IT, recovering in this sense the classical tradition that had been interrupted with the neoclassical separation.

The models of endogenous EG did not come about by accident. Being concerned with the exact microeconomic foundations, they are consequence of the general development of economic theory. We should mention the developments and dissatisfaction with Solow's work, the earlier studies of

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themes such as learning by doing [Arrow (1962)], the role of human capital [Uzawa (1965)], increasing returns to scale [Kaldor (1961)] and even the idea of per capita growth sustained by increasing income from the investment in capital goods, which include human capital, dating back to Knight (1944); as well as the inspiration provided by countless authors which have already been mentioned, since Adam Smith.

In accordance with this recent developments, we open the section with a brief and special reference to Lucas' second model (1988) and to the models of endogenous Research and Development (R&D) devised by Romer (1990 and 1993), Grossman and Helpman (1990, 1991a and 1991b) and Aghion and Howitt (1992). We conclude with the mention of several applications.

The Model of Lucas and the Models of Endogenous R&D

In the model of *learning by doing and comparative advantage*, of 1988, Lucas deals with the relation between IT and EG. Essentially, he considered the function of aggregate production with two consumption goods and only one production function, human capital, whose rate of accumulation depended on the quantity of labour connected with production (thus expressing the learning effects). He concluded that with IT each country would specialize in the good for which the autarky donation of human capital presented a comparative advantage. And this specialization tended to be reinforced because the learning took place in the specialized sector. Accordingly, if the rate of learning differed from sector to sector, the rates of EG would be different from country to country.

In the endogenous EG models devised by Romer (1986) and Lucas (1988), the production function of the economy resulted from the aggregation of the firms. Consequently, they turned out to be extremely aggregate and incapable of correctly explaining the microeconomic foundations capable of justifying the functioning of externalities and the agents' investment decisions. A second generation of models [Romer (1990 and 1993), Grossman and Helpman (1990, 1991a and 1991b) and Aghion and Howitt (1992)] considered innovations to be the foundation of the EG process. The innovations were the result of an explicit activity of R&D that occurred in the firms, with the result of R&D being the main determinant of the EG rate.

Technological knowledge is by nature a good without rivalry of use (public good). The market system can't correctly guarantee its production without some public intervention in implementing a system of patents. This system endows technology with the economic nature of a private good, in which the exclusion of use is possible, and which therefore can be sold. An economic problem immediately arises. By definition, the patent places the holder in a monopoly position, and by exploring that position he gains a monopoly rent. On the other hand, the patent entails a fixed cost for the user because its price is generally independent of use. A dilemma of economic policy also subsists in these models, in relation to the diffusion of innovations.

Self-Assessment

1. Choose the correct options:

- (i) International Trade on Economic Growth were first pointed out by
 - (a) Smith
 - (b) Marshall
 - (c) Ramsey
 - (d) none of these
- (ii) Marginalism led to a new theory which was called
 - (a) New Classical
 - (b) Modern theory
 - (c) Classical theory
 - (d) none of these
- (iii) The year of birth of the modern neoclassical theory of Economic Growth is
 - (a) 1959
 - (b) 1955
 - (c) 1956
 - (d) none of these
- (iv) The endogenous economic growth models was devised by
 - (a) Smith
 - (b) Romer and Lucas
 - (c) Englander and Gurney
 - (d) none of these

1.5 Summary

Notes

- In the present work we tried to explain the importance of commercial and technological (dynamic) aspects underlying the IT to EG.
- We noted that the dynamic potential afforded by IT that was pointed out by the classics [Smith (1776)] was disregarded by the 'marginalist revolution'. This was due to the fact that the 'marginalist revolution' studies temporarily left out the lines of the long-term evolution of the economy. As we know, after 1870 the EG was no longer viewed as a great issue for economists due, as it seems, to the perspectives opened by IR. Nevertheless, as exceptions to the rule, authors like Marshall, Young and Schumpeter still dealt with the importance of IT to EG. On the other hand, for instance, the main development in what concerns the scope of the IT theory (the Heckscher-Ohlin-Samuelson model) came to the conclusion that countries benefited from the opening to IT; however, it did no more than identify static gains. But existing studies — for example, Baldwin (1984) — conclude that the static effects (gains only for the increase in the level of per capita income) are very modest.
- It was in this context that, namely after WWII, occurred some reactions to the classical and neoclassical theories which ended up being put to practice in the experiments with introverted and protectionist growth, specially in Latin America. In short, the defenders of these theses maintain that the relevant products as regards IT were produced in keeping with the appeals of the DCs markets and their technologies. Thus, the LDCs were in a disadvantageous situation due to their reduced dimension and sophistication of their markets, as well as to the weak capacity for technological innovation and to the commercial intervention in what concerns the DCs consumers.
- The interest for the EG reawakened, however, with the works of Solow (1956 and 1957). From then on there was a real concern in analyzing the questions belonging to growth in a quantified and systematized way (with a clear distinction between questions belonging to growth and questions belonging to development).
- It should be noted, however, that Solow's (and Swan's) neoclassical growth model assumed technological progress to be exogenous, not because this was a realistic assumption, but because it was the only tractable one. This suggests that interaction with other countries may have no effect on an economy's long term rate of growth. Nevertheless, there may be some interesting effects of openness in the long term level of welfare, and in the transition to the steady state. In the open economy version of the neoclassical model, international flows of capital raise the rate of convergence to the steady state.
- In the late 1950s, the seminal paper by Solow (1957) attempted to account for economic growth in the US, finding it to be not fully explained by the increase in productive inputs such as labour and capital alone. The largest part of growth was thus attributed to a residual. In subsequent research, much effort was devoted to trying to better understand the origin of productivity increases by squeezing down the residual, by introducing other variables such as accumulation of human capital, economies of scale, a better allocation of resources and new generations of more productive machines. However, even with the introduction of new variables an unexplained residual remained.
- Therefore, on the one hand, the attempt to determine sources of growth in their entirety and, on the other hand, the failure of introverted growth experiences and the association of fast EG to the opening of IT and to the resulting international specialisation in several countries led to the undertaking of research on trade and growth (which adopted the neoclassical framework). We mentioned some theoretical studies — structuralist syntheses, analyses that underscore economic integration, the models of Findlay (1980 and 1984) and Feder (1982) —, empirical applications— among others, structuralist studies, Feder (1982) and Ram (1987) — and studies and/or recommendations about the external commercial policy — among others, UN recommendations, Balassa (1978, 1986 and 1987), Krueger (1985) and WB (1987) — whose defining characteristic is to view IT (above all the exporting component) as an explanatory variable of EG.

Notes

- Generally, they associate that situation with a better allocation of resources (according to the comparative advantages), with a greater utilisation of the productive capacity (which makes it possible to obtain economies of scale), with the greater propensity to implement technological improvement (in answering to the greater competition that they face) and with the higher level of employment created in comparison with introverted strategies.
- Although this body of literature enlarged the original framework, technology was still treated as a public good.
- However, on the one hand, in view of the neoclassical theory's limitations (mainly because the technological progress is exogenous but also because, in open economies, this suggests that, in practice, the increase of the convergence among countries is not verifiable) and, on the other hand, in view of the many developments and suggestions which are afforded by Smith, Schumpeter, Knight, Arrow, Kaldor and Uzawa, among others, economists have recently started to model the process of knowledge accumulation, and the resulting literature is known as endogenous growth theory. This allows us to develop tractable and flexible models that embody the vision of economics life as an endless succession of innovation and change wrought by competition.
- These growth models allow for an economy to be able to reach a balanced growth path through endogenous forces and underscore the microeconomic foundations of the growth process, identifying in detail the driving force of growth (which is knowledge, generally under the form of technological innovation), its respective dynamics as well as the driving forces which influence its accumulation. Thus, in most new models the determining factor of economic growth is endogenous innovation, and this innovation is still influenced by IT. Consequently, the modelling which these new models afford brought with it a more exact approach to the relation between EG and IT. So we can say that the dynamic potential created by IT was decisively recovered more recently with the advent of the models of endogenous growth.
- Furthermore, the endogenous approach, bringing increasing returns and non-competitive market structures into the core of growth analysis, made it so that perfect competition would no longer be a *sine qua non* condition for optimal trajectories of growth to exist. The growth path may not be optimal. So, the governmental intervention may be useful in order to move the growth path towards the optimal one.
- Regarding the contribution of IT to EG, in light of the new approach, we alluded to Romer's work (1990), which viewed IT as a motivating factor of growth, when integrating economies with different levels of human capital. We also saw that the assumptions as to differences among countries condition trade patterns and their effect on growth. With respect to this, Lucas (1988) and Grossman and Helpman (1991a) assume that the only differences among countries have to do with initial provision of factors, whereas Grossman and Helpman (1990) point to differences in respect to the countries' technological capacities.
- The works of Grossman and Helpman (1991b and 1991c) and Rivera-Batiz and Romer (1991a) have also helped clarify why a country's participation in an integrated world economy can speed up its growth : among other reasons, it allows access to a wider base of technological knowledge, it makes technological diffusion easier, it motivates research and avoids redundancies in research. We also presented Romer's work (1993), which recommended that the LDCs open to the foreign investment with more advanced technology so that they could register increases in the rate of innovation and in the economy's rate of growth.
- In this context, the abundant empirical evidence, specifically, suggests that trade openness tends to be beneficial for growth. Especially for the DCs, because they affect the domestic rates of innovation. And for the LDCs (which hardly invest in R&D) because of the dynamic effects of the economic integration with DCs, the catch-up of the convergence, the importation of capital goods and the capacity for adaptation and implementation of innovations. Finally, let us mention that the intensity of dynamic effects depends simultaneously on the geographic structure of international trade (*i.e.*, on the level of development of trade partners), on the composition and

intensity of IT and on the capacity for internal technological adaptation, which is made possible through higher levels of human capital, as suggested, for example, by Lucas (1988) and Romer (1990).

Notes

1.6 Key-Words

1. Neoclassical theory : An economic theory that outlines how a steady economic growth rate will be accomplished with the proper amounts of the three driving forces: labor, capital and technology. The theory states that by varying the amounts of labor and capital in the production function, an equilibrium state can be accomplished. When a new technology becomes available, the labor and capital need to be adjusted to maintain growth equilibrium.
2. Endogenous growth theory : This theory holds that economic growth is primarily the result of endogenous and not external forces. Endogenous growth theory holds that investment in human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on positive externalities and spillover effects of a knowledge-based economy which will lead to economic development. The endogenous growth theory also holds that policy measures can have an impact on the long-run growth rate of an economy. For example, subsidies for research and development or education increase the growth rate in some endogenous growth models by increasing the incentive for innovation.

1.7 Review Questions

1. Explain trade as an Engine of growth.
2. What do you mean by Post classical period? Discuss international growth and trade in context of post classical period.
3. What are the models of endogenous growth and international growth? Discuss.

Answers: Self-Assessment

1. (i) (a) (ii) (a) (iii) (c) (iv) (b)

1.8 Further Readings



1. Abramowitz, M. (1956), Resource and output trends in the United States since 1870, *American Economic Review*, 46(2), May, pp. 5-23.
2. Aghion, P. and Howitt, P. (1992), A model of growth through creative destruction, *Econometrica*, vol. 60, no 2, pp. 323-351.
3. Backhouse, Roger E. (1985) — *A History of Modern Economic Analysis*— Oxford : Basil Blackwell.
4. Balassa, B. (1963), An empirical demonstration of classical comparative cost theory, *Review of Economics and Statistics*, vol. 45, pp. 231-238.
5. Balassa, B. (1978), Exports and economic growth : further evidence, *Journal of Development Economics*, vol. 5, no 2, pp. 181-189.
6. Balassa, B. (1986), Policy responses to exogenous shocks in developing countries, *American Economic Review*, Vol. 76, no 2, May, pp. 75-78.

Unit 2 : Measurement of Gains from Trade

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Objectives

After reading this Unit students will be able to:

- Describe how to measure Gains from Trade.
- Explain an Application to Fair Allocation.

Introduction

In the classical model of exchange gains from trade can be obtained if there exists a feasible allocation which each agent prefers to her endowment. But, how can we measure the gains from trade in an economy ? For interpersonal comparisons of welfare are typically not meaningful, we propose measuring gains from trade in terms of quantities of goods, avoiding welfare comparisons. To do so, we search for a “reference allocation”, composed of “reference bundles”, one for each agent, such that : (i) each agent is indifferent between her endowment and her reference bundle, and (ii) the reference allocation is feasible. Since no welfare gains are achieved, the difference between the aggregate endowment and the resources at the reference allocation provides a measure of the gains from trading from the endowment profile to the reference allocation.

In this manner, we obtain a measure of gains from trade in terms of quantities of goods. But, for most economies, there is a continuum of reference allocations and the vectors of resources saved by trading to each differ. The set of all such vectors defines the set of possible gains from trade of the economy. We introduce the notion of a (vector-valued) “metric”, to select, for each economy, one representative vector from its set of possible gains from trade.

Two economies may differ in preferences and endowment profiles but have equal sets of possible gains from trade. Our premise is that, if two economies have equal sets of possible gains from trade, a metric should not distinguish between them, and should select the same representative vector of gains from trade in both economies. Thus, the notion of a metric is similar to the notion of a solution for bargaining problems. A “bargaining problem” consists of a set of utility profiles and a disagreement point; a “solution” maps each bargaining problem into a utility profile. In our setting, the set of utility profiles corresponds to the set of possible gains from trade, and the disagreement point corresponds to each agent consuming her endowment and no resources being saved. A metric maps each set of possible gains from trade into a vector of gains from trade.

We follow an approach used in bargaining theory and look for metrics satisfying certain desirable properties. Metrics should select a vector representative of the size of the set of possible gains from trade. Thus, we look for metrics satisfying the following three properties that have strong intuitive

appeal for our setting. The first property is “maximality” : for each economy, no reference allocation leads to a larger vector of gains from trade than the vector selected by the metric. The second property is “monotonicity” with respect to set inclusion : a metric selects a larger vector of gains from trade in an economy with a larger set of possible gains from trade. The third property is “homogeneity” : a homogeneous expansion of the set of possible gains from trade leads to a homogeneous expansion of the vector selected by the metric.

2.1 Gains from Trade

The combination of consumer surplus and producer surplus obtained by buyers and sellers when engaging in a market exchange. Gains from trade arise because buyers are typically willing and able to pay a higher price to purchase a good than what they end up paying and because sellers are typically willing and able to accept a lower price to sell a good than what they end up receiving. Both sides of the market exchange are thus better off, have a net gain in welfare, by making the trade. While all types of market exchanges generate gains from trade, this topic is perhaps most important for an understanding of international trade.



Buyers and sellers engage in market exchanges because they benefit from the trade.

As a general rule both sides are better off after the exchange than they were before the exchange. Buyers are better off because they have a net gain in consumer surplus. Sellers are better off because they have a net gain in producer surplus.

Voluntary market exchanges are undertaken because they are beneficial to both sides of the transaction. If buyers and sellers did not gain from the trade, then they would not voluntarily undertake the trade.

While the gains obtained from market exchanges provides insight into all forms of trading and the very existence of a market-based economy used to allocate resources, it also provides a great deal of insight into trading among nations, that is, international trade. When two nations engage in trade they do so because they gain from the trade. Both countries are better off after the trade than they were before.

Market Trades

The motivation behind international trade is essentially the same as for any market exchange. People buy and sell goods because they expect to be better off after the exchange than they were before. To illustrate this, consider the motivation of two hypothetical people -- Horst Duncanstein and Francine von Sutter -- who are primed to do a little exchanging.

- **From the Buying Side:** First, consider the situation facing Horst Duncanstein, who is exceptionally fond of turnip lasagna. Eating turnip lasagna makes Horst a happy fellow. It improves his level of well being. It satisfies his wants and needs.
To this end, Horst is willing to pay a price for the turnips needed to make his turnip lasagna. Horst has a maximum price that he is willing to pay for the needed turnips -- a demand price. If the price is too high, then he will not purchase turnips, opting to consume another good, perhaps carrots to be used in a carrot casserole. However, should the price he pays for his turnips be less than his demand price, then he comes out ahead. He pays less than the value he receives, what is termed consumer surplus. He gains from this trade.
- **From the Selling Side:** Second, consider the situation facing Francine von Sutter, a turnip farmer. While Francine does not have a particular fondness for turnips, she does enjoy the farming business. She has the land, labor, and capital needed to produce turnips.

To this end, Francine is willing to provide turnips to willing buyers so long as she can cover the cost of production. Francine has a minimum price that she is willing to accept to produce turnips -- a supply price. If the price is too low, then she will not produce turnips, opting to produce another

Notes

good, perhaps carrots. However, should the price she receives for her turnips be greater than her supply price, then she comes out ahead. She receives more than the cost of production incurred, what is termed producer surplus. She gains from this trade.

Putting Horst and Francine together is bound to be beneficial for both. If Horst pays less than his demand price, then he gains from the trade. If Francine receives more than her supply price, then she also gains from this trade. It is a win-win exchange.

In the extreme case, it is possible that the price Horst pays is exactly his demand price or the price Francine receives is exactly her supply price. In this case, one side or the other does not gain from the trade, but neither does that side lose.

However, should the price rise above the maximum demand price Horst is willing to pay or fall below the minimum supply price Francine is willing to pay, then the exchange will not occur. One side or the other will opt out of the trade.

The end result of such voluntary trades between buyers like Horst and sellers like Francine is that one side or the other, and usually both, gain from the trade. If they did not gain (or at least break even), then they would not voluntarily engage in the exchange.

Graphical Gains

The gains obtained from market exchanges can be illustrated using the exhibit to the right. This exhibit presents a standard market graph. The negatively-sloped demand curve, D, represents the demand price that buyers (like Horst) are willing and able to pay to purchase different quantities of turnips. The positively-sloped supply curve, S, represents the supply price that sellers (like Francine) are willing and able to accept to sell different quantities of turnips.

If this is a competitive market, free of other market failures and other annoying complications, then the intersection of the demand and supply curves gives rise to the equilibrium price and equilibrium quantity. The relation between the market equilibrium price, the demand price on the demand curve, and the supply on the supply curve indicates the gains from trade.

The area above the equilibrium price and below the demand curve is the consumer surplus generated by this market. The area below the equilibrium price and above the supply curve is the producer surplus generated by this market.

The combination of these two areas, the area above the supply curve and below the demand curve, is the gains from trade generated by this market. This is extra satisfaction, welfare, profit, etc. that would not exist if this market exchange did not take place.

Gaining from International Trades

The only difference between regular market trades, such as that between Horst and Francine, and international trades is the location of the buyers and sellers. If Horst lives in one nation, such as the hypothetical Republic of Northwest Queoldiola, and Francine lives in another, such as the equally hypothetical United Provinces of Csonda, then the previous market exchange example is also an international trade. But the gains from trade still result.

As a matter of fact, Horst does live in the Republic of Northwest Queoldiola and like other Queoldiolan's, he loves his turnip lasagna. And Francine is a turnip-growing citizen of the United Provinces of Csonda, and she is eager to sell her product to buyers from other lands.

Horst and Francine gain from this turnip exchange, but so too do their home nations. Northwest Queoldiola ends up with a bit more consumer surplus, thanks to that obtained by Horst, and the Csonda ends up with bit more producer surplus, thanks to that obtained by Francine.

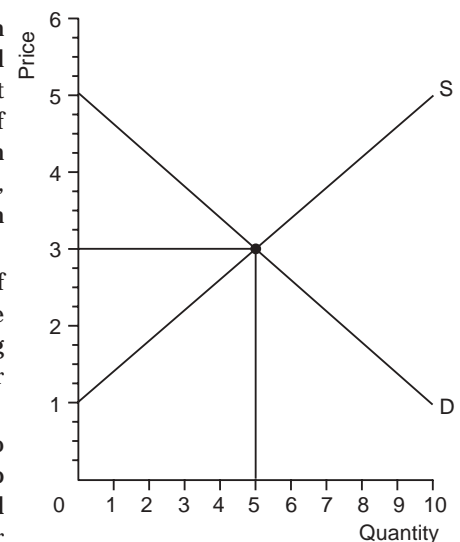


Figure 2.1

2.2 How to Measure Gains from Trade

Notes

Our proposal for measuring gains from trade in terms of quantities of goods can be interpreted as a generalization, to a multi-agent setting, of some existing measures of welfare changes in single agent decision making settings. The equivalent variation and compensating variation are measures of welfare changes in terms of the difference in expenditure required to keep an agent's welfare unchanged after a change in prices. In our setting, change does not come from prices but from trading among agents, and measuring gains in terms of quantities of goods seems natural in the absence of pre-specified prices. In settings of choice under uncertainty, the risk premium measures how much an agent is willing to forgo in order to obtain a constant consumption stream; the certainty equivalent measures the level of constant consumption across states that leaves the agent's welfare unchanged. In our setting, we measure how much a set of agents can gain by redistributing risk among them.



Notes

Measuring gains from trade is equivalent to measuring the inefficiency of the endowment. A measure the inefficiency of an allocation (or of the endowment profile) is its “coefficient of resource utilization” (Debreu 1951). It assigns to each maximal vector in the set of possible gains from trade a number equal to the dot product of the vector and its supporting price. Then, it measures the inefficiency of the allocation by the maximal such value.

This way of measuring the inefficiency of an allocation is similar to ours. It also considers the set of possible gains from trade of the economy. But, instead of measuring gains from trade by a vector of commodities, it measures gains from trade by a scalar. Using a real-valued metric implies that we can order the set of all economies according to their gains from trade. Using a vector-valued metric allows for a partial order, which may be desirable if differences in goods require asymmetric treatment across them. Moreover, this measure is not monotonic, an increase in the set of possible gains from trade can lead to a decrease in the measurement of this gains.

Another advantage of using a vector-valued metric over a real-valued one, is that a vector-valued metric leads to a natural allocation at which gains from trade are distributed fairly. The theory of fair allocation can be categorized according to the nature of the problem under study : First, situations where a social endowment has to be divided among a set of agents. Second, situations where agents have private endowments and redistribution (trading) is possible. For the problem of allocating a social endowment two notions of fairness are prominent. First is no-envy (Foley 1967) : no agent should prefer another agent's bundle over her own (see Kolm (1998) and Varian (1976)). Second is egalitarian equivalence (Panzer and Schmeidler 1978) : there exists a reference bundle such that each agent is indifferent between her bundle and the reference bundle. For the problem of redistributing individual endowments these two notions can be adapted. No-envy in trades states that no agent prefers another agent's trade over her own. Egalitarian-equivalence from endowments states that there exists a reference vector such that each agent is indifferent between her bundle and the bundle obtained from the sum of her endowment and the reference vector.

Recently, a notion similar to egalitarian equivalence was proposed for economies with individual endowments : an allocation is fair if it is welfare equivalent to an allocation obtained from summing to the endowment profile a vector of fair “concessions” (Pérez-Castrillo and Wettstein 2006). This notion generalizes egalitarian equivalence in two ways : first, it allows for differences in the reference bundles according to differences in individual endowments; second, it allows for differences in concessions.

Our notion of fairness is similar to Pérez-Castrillo and Wettstein (2006) but it differs in two ways. First, our reference allocation is welfare equivalent to the endowment profile, and we sum to the reference allocation the vector of contributions. Second, our vector of contributions differs from their vector of concessions. Also, our results differ in form from theirs. They show existence of fair and efficient allocations; we do not obtain a fair and efficient allocation immediately, but propose a recursive

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procedure which is fair at each step, and obtains an efficient allocation at the limit. Also, we provide an algorithm to reach it.

2.3 Measurements of Gain from International Trade

The gains from international trade are measurable. Prof. Jacob Viner says that the classical economists had adopted three methods of measuring the gains from international trade.

1. Measurement of increased real income by comparative cost theory.
2. Increase in the level of national income.
3. Improvement in terms of trade.

However, with the introduction of J.S. Mill's theory of Reciprocal Demand, the most frequently used method of measuring gains from trade is the terms of trade method.

Hence, in order to measure gains from trade, three approaches are used.

1. Ricardo's Approach
2. J.S. Mills Approach
3. Modern Approach or Samuelson's Approach

Ricardo's Approach

According to Ricardo, a country would export those goods in which its comparative cost of production is less. This is proved in an example and diagram.

| | |
|---|-----|
| India: 15 units of cotton or 20 units of wheat Pakistan: 10 units of cotton or 10 units of wheat | (i) |
|---|-----|

If in every country only two units of the factor are used, the product would be as under:

| | |
|---|------|
| India: 15 units of cotton + 20 units of wheat Pakistan: 10 units of cotton + 10 units of wheat | (ii) |
|---|------|

1. Without specialization, if both the countries produce both the commodities, the total production in the two countries would be as under:

| | |
|--|-------|
| India + Pakistan = 25 units of cotton + 30 units of wheat (25C + 30W) | (iii) |
|--|-------|

2. If there is specialization on the basis of comparative cost theory, in India specializing in the production of cotton, total production would be:

| | |
|--|------|
| India = 25 units of wheat Pakistan = 20 units of cotton | (iv) |
|--|------|

India + Pakistan = 40 units of wheat + 20 units of cotton

Comparing situations (ii) and (iii), reveals that due to specialization in the two countries, production of wheat increases by 10 units whereas there is loss of 5 units of cotton.

| | |
|---------------------------------------|-----|
| Net Result = + 10 units W – 5 units C | (v) |
|---------------------------------------|-----|

From situation (i) it is revealed that 10 units of wheat in India is equal to 7.5 units of cotton and in Pakistan it is equal to 10 units of cotton i.e.

$$10 W = 7.5 C \text{ or } 10 W = 10 C$$

So the net result is:

$$+ 7.5 C - 5 C$$

$$\text{or } 10 C - 5 C$$

$$\text{i.e. } + 2.5 C \text{ or } + 5 \text{ Cotton}$$

Thus, specialization results in net gain of 2.5 or 5 units of cotton which is distributed between the two countries.

The gain that a country enjoys by pursuing trade according to this theory is illustrated by the following Figure 2.2.

In Figure 2.2 X-commodity is shown on OX-axis and Y-commodity on OY-axis. Suppose, in case of trade, AB is the production possibility curve that indicates different combinations of X-commodity and Y-commodity produced by the given number of labour. Point 'E' on AB curve indicates equilibrium position of the country. After entering into trade, the production possibility curve shifts and assumes the shape of BC curve. Slope of BC curve indicates international price ration of the country. Suppose this country is in equilibrium at point 'F' on ABI curve. If this country produces a combination of X-commodity and Y-commodity as shown by point 'F', it will have to increase the number of labourers to such an extent that domestic production possibility curve shifts from AB to A_1B_1 .

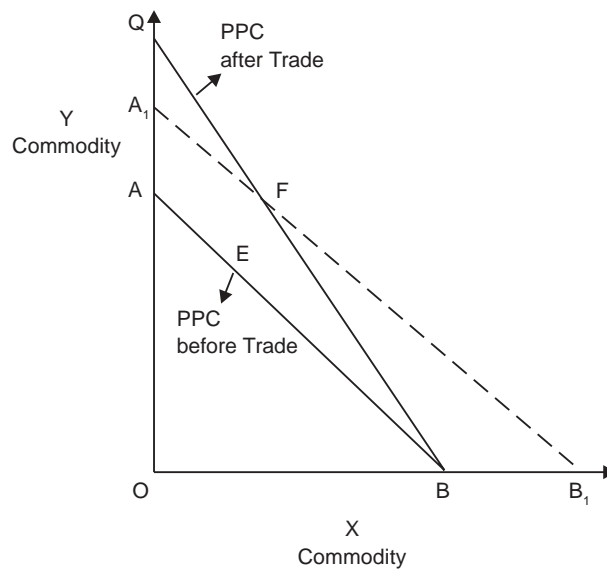


Figure 2.2: Gains from Trade

Thus the amount of gain from the trade will be measured by BB_1/OB .

Criticism

The main points of criticism of gain from international trade occurred as a result of comparative cost or Richardo's theory are as under:

1. According to later economists, Ricardo has unnecessarily exaggerated the gain from international trade. Ricardo's theory does not apply to those countries which cannot produce the imported goods or can produce the same only at higher cost.
2. Mill feels that Ricardo's theory does explain the reason why international trade takes place but it does not explain the quantum of gain and how the same is distributed among different countries.

Mill's Approach

J.S. Mill analyzed the gain as well as the distribution of the gain from international trade in terms of his theory of reciprocal demand. According to Mill, it is the reciprocal demand that determines terms of trade which, in turn, determines the distribution of gains from trade of each country. The term 'terms of trade' refers to the better terms of trade between the two countries, i.e., the ration of the quantity of imports for a given quantity of exports of a country.

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To take an example; in country A, 2 units of labour produce 10 units of X and 10 units of Y, while in country B the same labour produces 6X and 8Y. The domestic exchange ratio (or domestic terms of trade) in country A is $1X = 1Y$, and in country B, $1X = 1.33Y$. This means that one unit of X can be exchanged with one unit of Y in country A or 1.33 units of Y in country B. Thus, the terms of trade between the two countries will lie between $1X$ or $1Y$ or $1.33Y$.

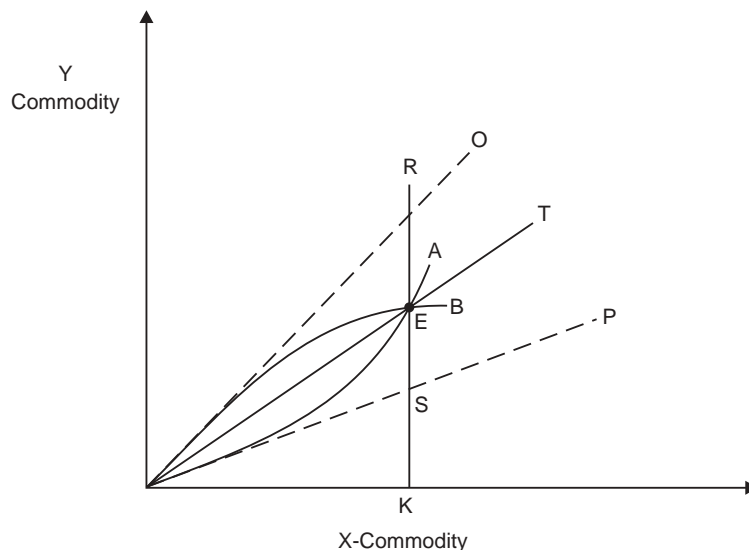


Figure 2.3: Marshall-Edgeworth offer Curves and Distribution of Gains from Trade

However, the actual exchange ratio will depend upon the reciprocal demand, i.e., “the relative strength and elasticity of demand of the two trading countries for each other’s product in terms of their own product.” If A’s demand for commodity Y is more intense (inelastic), then the terms of trade will be nearer $1X = 1Y$. The terms of trade will move in favour of B and against country A. B will gain more and A less. On the other hand, if A’s demand for commodity Y is less intense (more elastic), then the terms of trade will be nearer $1X = 1.33Y$. The terms of trade will move in favour of A and against B. A will gain more, and B less.

The distribution of gains from trade is explained K in terms of the Marshall-Edgeworth offers curves in Figure 2.3 OA is the offer curve of country A, and OB of country B. OP and OQ are the domestic constant cost ratios of producing X and Y in country A and B respectively. These rays are, in fact, the limits within which the terms of trade between the two countries lie. However, the actual terms of trade are settled at E the point of intersection of OA and OB. The line OT represents the equilibrium terms of trade at E.

The cost ratio within country A is KS units of Y and OK units of X. But it gets KE units of Y through trade. SE units of Y is, therefore, its gain. The cost ratio within country B is KR units of Y and OK units of X. But it imports OK units of X from country A in exchange for only KE units of Y. ER units of Y is its gain. Thus, both countries gain by entering into trade.

Haberler’s Proof of the Gains of Trade

Haberler has specified the gains of trade in a given diagram. In Figure 2.4 AA is the production possibility curve. Before trade H is the equilibrium point showing the state of production and consumption. The slope of the tangent DD at H shows the price ratio before trade. After international trade price ratio is shown by PP line which is tangent at point T on the PPC. Point T represents production equilibrium point and H' represents competition equilibrium point. At H' country exports H'L quantity of X and import I.T quantity of Y commodity.

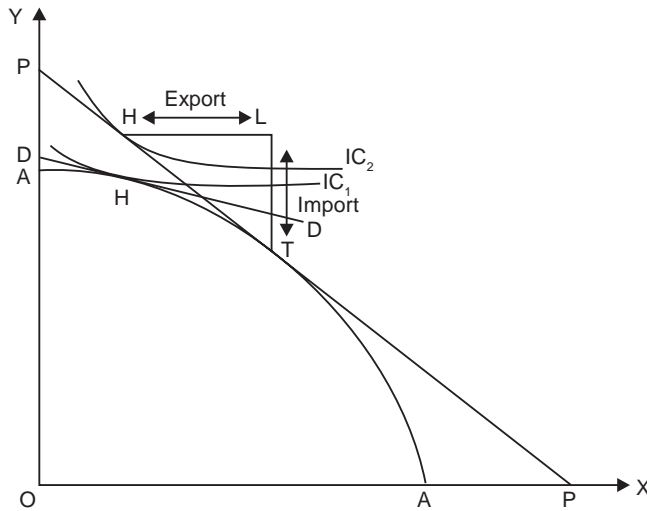


Figure 2.4: Gains from Trade - Haberler's Approach

On the basis of community IC it has been clarified that point H' is superior to H as at H' higher indifference curve is tangent at H' than at H. Hence these are gains from international trade. It should however, be clarified that since Haberler was not in favour of using community indifference curves, point H1 can prove to be superior to H if H1 is above and to the right of H. In this case at H1 international trade causes rise in the quantity of both X and Y goods. This is nothing but gain from trade.

Modern Approach (Samuelson's Approach)

In modern trade theory, the gains from international trade are clearly differentiated between the gains from exchange and the gains from specialization. The analysis is explained in terms of the general equilibrium of a closed economy by taking demand and supply. It is characterized by the tangency of a community indifference curve with the transformation curve, and the equality of the marginal rates of substitution between commodities in consumption and production with the domestic terms of trade or commodity price ratio. *"The introduction of international trade permits the realization of a gain from exchange and gain from specialization. When equilibrium is established and these gains are maximized, the new marginal rate of transformations in production and the new marginal rate of substitution in consumption are equal to the international price ratio or terms of trade."* Thus, both producers and consumers gain from international trade by producing and consuming more than the pre-trade level.

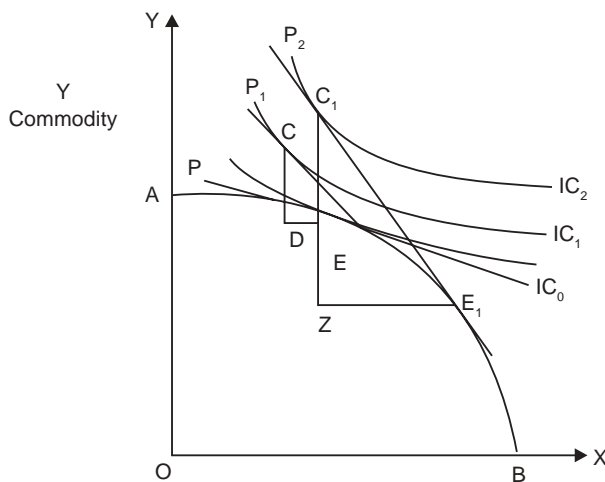


Figure 2.5: Gains from Trade-Samuelson's Approach

Notes

Figure 2.5 explains the gains from international trade. AB is the transformation curve representing the supply side and IC_0 is the community indifference curve representing the demand side of an economy. The closed economy (no trade) equilibrium is shown by point E where the AB and IC_0 curves are tangent to each other and both equal the domestic terms of trade or commodity price ratio (line) PP.

With the introduction of international (or free) trade the international price ratio (terms of trade) will be different from the domestic price ratio (terms of trade). It is shown as P_1 and is steeper than the domestic price ratio P. It means that the price of commodity X has increased in relation to commodity Y in the world market. At the international price line P_1 , the consumers move to point C on a higher community indifference curve CI , from point E on the IC_0 curve. This movement from E to C measures the gain from exchange or consumption gain with no change in production.

Since the price of X has increased in the world market, producers increase its production and decrease that of Y. This leads to movement along the transformation curve from point E to E_1 where the international price line P_2 is tangent equals the international price ratio. The new world terms of trade ratio P_2 is the same as P_1 because it is parallel to P_1 . At E_1 the country exports E_1Z of X in exchange for ZC_1 imports of Y.

As a result of increased specialization in the production of X, there is a shift in consumption from point C on the IC_1 curve to point C' on the IC_2 curve, where consumers consume larger quantities of both X and Y. This movement from C to C' measures the gain from specialization in production or production gain. At C' , the marginal rate of substitution and the international price ratio are equal. Hence the gains from international trade are maximized at points E_1 and C' because the marginal rate of transformation in production and the marginal rate of substitution in consumption are equal to the international price ratio P_2 . The total gain from free trade is the sum of the consumption and production gains and is shown as improvement in welfare from IC_0 to IC_2 .

2.4 An Application to Fair Allocation

Once we have a measure of the gains from trade in an economy, how can we distribute them fairly? An "allocation rule" recommends for each economy a set of feasible allocations. We look for allocation rules that distribute gains from trade fairly. First, we propose a method to determine the contribution of each agent to the gains from trade. Then, we declare an allocation "fair" if each agent obtains her contribution to the gains from trade. Finally, we propose an allocation rule which assigns to each agent her contribution to the gains from trade. This rule is not efficient, but we show that a recursive procedure distributes gains from trade fairly at each step and defines an efficient rule.

2.4.1 Contributions to Gains from Trade

In order to determine each agent's contribution to the gains from trade, we propose to use the solution concept of the theory of cooperative games known as the Shapley-value, using its interpretation as rewarding agents as a function of their "marginal contributions" to all subgroups. We measure each agent's contribution to the gains from trade as the "marginal gains" in each subpopulation.

First, we generalize the definition of the *weighted-gains family* to allow for variable populations. For each subpopulation $N' \subset N$ and each economy $(R, \omega) \in \mathcal{E}$, the α -*weighted-gains metric* measures gains

from trade of the subeconomy $(R_{N'}, \omega_{N'})$ by the largest vector $z \in G(R_{N'}, \omega_{N'})$ proportional to α .

Self -Assessment

1. Choose the correct option:

- (i) Mercantilism advocated that a country
 - (a) prohibit all exports because it viewed trade as zero sum, believing that one nation's gain was another nation's loss.
 - (b) Should pursue Free trade because it viewed trade as zero sum, and therefore, that trade would always be balanced.

- (c) promote exports over imports because it viewed trade as zero sum, believing that one nation's gain was another nation's loss.
- (d) use tariffs rather than quotas. Because mercantilism views trade as zero sum, transparent trade barriers are viewed as best.
- (ii) Adam Smith was critical of trade barriers, since he believed that trade barriers
 - (a) Are a good and appropriate source of government revenue.
 - (b) Reduce specialization, technological progress and wealth creation.
 - (c) Harm a country's relations with its colonies.
 - (d) All of the above.
- (iii) The Resource Curse refers to the idea that
 - (a) Countries that focus on a resource, such as oil, may suffer from macroeconomic instability.
 - (b) Countries that don't have resources, such as oil, are at the mercy of resource-rich countries.
 - (c) Countries that don't have resources are more likely to have corrupt governments.
 - (d) Countries that don't have resources may suffer from macroeconomic instability.
- (iv) Competitive advantage and comparative advantage will differ for China if
 - (a) True production costs are inaccurately measured due to production externalities such as pollution.
 - (b) None of the above. Competitive advantage and comparative advantage are always the same.
 - (c) The Chinese currency (the Renimbi) is overvalued.
 - (d) Both A and B.
- (v) When a country trades according to principles of comparative advantage.
 - (a) Some workers will be hurt due to dislocation. Their losses are so large that it is impossible to offset these losses through the sharing of the gains from trade.
 - (b) All workers will lose due to foreign competition.
 - (c) All workers will gain.
 - (d) Some workers will be hurt due to dislocation, though their losses could be offset if the gains from trade were shared.

2.5 Summary

- We proposed a method to measure gains from trade. We avoided interpersonal comparisons of welfare by denning gains in terms of quantities of goods. To do so, we introduced the notion of a *metric*. A *metric* measures gains from trade by a vector of quantities of goods which can be saved while keeping each agent's welfare unaffected. We characterized the family of *metrics* satisfying some intuitive properties (Theorem 1). This method of measuring gains is applicable to a wide variety of settings. It can be interpreted as generalizations of existing measures of welfare changes in single agent settings to multi-agent settings.
- Then, we proposed an application to fair allocation. Based on Shapley's algorithm, we obtained a way of measuring each agent's contribution to the gains from trade. We declared an allocation fair if each agent receives her contribution to the gains from trade. We defined a fair allocation rule that assigns to each agent her contribution. This rule is inefficient, but we show that a recursive procedure, which is fair at each step of the recursion, yields an efficient rule (Theorem 2).
- Now, we discuss relaxing some of the assumptions. First, we discuss relaxing the assumptions of boundary aversion and strict monotonicity of preferences. Then, we discuss relaxing some of the properties on *metrics*.
- Throughout the paper, we assumed that preferences are strictly monotonic and satisfy boundary aversion. When preferences fail either of these properties but are (weakly) monotonic, Proposition 1 no longer holds. The *sets of possible gains from trade* of some economies are not strictly

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comprehensive; but they are still closed, convex, bounded, and comprehensive. Proposition 2 still holds. Moreover, for each closed, convex, bounded, and comprehensive set we can find an economy whose set of possible gains from trade and this set coincide.

- The domain of closed, convex, bounded, and comprehensive sets is the usual domain of problems in bargaining theory. It is well-known that on this domain there is no *maximal* and *monotonic* solution. We can weaken *monotonicity* to hold whenever the smaller of the two sets of gains from trade is strictly comprehensive, and obtain a generalized version of the *weighted-gains* family. A member of this generalized family measures gains from trade by the largest vector proportional to a vector of weights, but, if this vector is not maximal, it drops some goods, and continues measuring gains from trade proportional to a restricted vector of weights. We refer to Thomson (2004) for a detailed treatment of this family in the context of bargaining theory.
- For the application to fair allocation, *monotonicity* of the *metric* was necessary for the proof of Theorem 2. As stated in the text, we conjecture that an alternative proof can be obtained without *monotonicity* if we require a welfare improving property.
- Finally, we discuss relaxing the requirement that *metrics* measure equal gains from trade in economies with equal *sets of possible gains from trade*. Sets of possible gains from trade depend on relatively little information about preferences. This property may be desirable when obtaining information is costly, but we may lose too much information in the aggregation procedure. Relaxing this property is an interesting open question left for future research. For now, we note that *monotonicity* of a *metric* implies this property.

2.6 Key-Words

1. Symmetric : Symmetry generally conveys two primary meanings. The first is an imprecise sense of harmonious or aesthetically pleasing proportionality and balance; such that it reflects beauty or perfection. The second meaning is a precise and well-defined concept of balance or "patterned self-similarity" that can be demonstrated or proved according to the rules of a formal system: by geometry, through physics or otherwise. Although the meanings are distinguishable in some contexts, both meanings of "symmetry" are related and discussed in parallel.
2. Maximality : Of relating to, or consisting of a maximum, being the greatest or highest possible

2.7 Review Questions

1. Write a short note on the gains from trade.
2. Discuss the measurement of gains from trade.
3. What are the concepts of trade? Discuss.

Answers: Self-Assessment

1. (i) (c) (ii) (b) (iii) (a) (iv) (d) (v) (d)

2.8 Further Readings



1. **DEBREU, G. (1951)** : "The coefficient of resource utilization," *Econometrica*, 19, 273–292.
2. **DOMINGUEZ, D. (2006)** : "Lower bounds and recursive methods for the problem of adjudicating conflicting claims," *mimeo*.
3. **FOLEY, D. (1967)** : "Resource allocation and the public sector," *Yale Economic Essays*, 7, 45–98.
4. **KALAI, E. (1977)** : "Proportional solutions to bargaining situations : interpersonal utility comparisons," *Econometrica*, 45, 1623–1630.

Unit 3 : Free Trade Theory — Absolute Advantage, Comparative Advantage and Opportunity Cost

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Objectives

After reading this Unit students will be able to:

- Describe Absolute Advantage Model of Adam Smith.
- Explain Comparative Advantage Model of David Ricardo.
- Understand the Opportunity Cost and the Pure Theory of Trade.

Introduction

The theory of trade has a central place in economic analysis, and underpins the doctrine of free trade. Free trade doctrines have a long and fascinating history in Europe. In 1846 Britain repealed the Corn Laws, an historic event which marked the start of the era of free international trade, and lasted until the great depression of the 1870s. The Corn Laws were the duties on imports of grain, which had been in force in England since the middle of the fifteenth century. Other European countries had similar taxes : France, Sweden, Bavaria, Belgium and Holland.

The reasoning behind the Corn Laws was as follows. Grain, chiefly wheat, is a staple foodstuff, especially important in the diets of labouring people. But its price varies greatly from year to year, depending on the size and quality of harvests. Duties on imports were levied on a sliding scale in order to stabilise the price of wheat. When the domestic price was high because of a poor harvest, duties were lowered to permit imports. When the domestic price was low because of a bumper harvest, import duties were raised.

In the decades leading up to the repeal of the Corn Laws in Britain, the system had fallen into disrepute. In fact the sliding scale of duties was tending to increase rather than reduce fluctuations in the price of wheat. When the domestic price was high, traders tended to withhold supply to raise the price even further. They anticipated that import duties would soon be lowered, which was in fact what tended to happen. Then, when duties fell, traders began to import large quantities of grain. As supply rapidly increased, and prices fell dramatically, import duties were quickly increased. The net effect was to amplify market fluctuations through speculation, making a vulnerable market even more unstable, much to the detriment of consumers.

The Corn Laws had another important effect. They benefited agricultural interests at the expense of the newly emerging manufacturing sectors. High prices of grain, maintained through restricting foreign supply, increased the value of land. Landowners, understandably, came to constitute an important pressure group for the maintenance of the Corn Laws. Against these landed interests were

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ranged the burgeoning manufacturing classes. In Britain, the opposition to the Corn Laws centred on Manchester, the home of the textile industry. The 'free traders' as they were called, believed that lower grain prices were needed so that the labouring classes in industrial areas would have access to cheap foodstuffs. Led by Cobden, formerly a manufacturer, the free traders argued for the opening-up of British markets to cheap grain imports from overseas. Manufacturers were also anxious that free trade principles should be reciprocated in other countries, so that foreign markets would be opened up to exports of cheap manufactured goods from Britain.

In Britain free trade principles eventually triumphed. In the twentieth century, with the important exception of the period 1918 to 1939, free trade principles also came to dominate the world economy. In this chapter we explore the economic principles which underpinned the doctrine of free trade, a doctrine which is arguably one of the most robust of any in present-day economics. These principles were reinterpreted in terms of modern economics by the economist Haberler in the 1930s.

Finally, a word of warning — the theory of comparative cost, on which everything in this chapter rests, is deceptively simple! In 1996, the world-famous US economist Paul Krugman came to Manchester, UK, to give a paper to mark the 150 years which had elapsed since the repeal of the Corn Laws. He entitled his address 'Ricardo's Difficult Idea : Why Intellectuals Don't Understand Comparative Advantage'. In it he made clear that intelligent people who read, and even those who write about world trade, often fail to grasp the idea of comparative advantage. The aim of this chapter is to ensure that you fully understand the basis of the theory of trade.

Adam Smith (1723-1790) provided the basic building blocks for the construction of the classical theory of international trade. He enunciated the theory in terms of what is called Absolute Advantage model. Another well-known classicist, David Ricardo (1772-1823) articulated it and expanded it further into what is called Comparative Advantage model. The models of Smith and Ricardo together constitute what is sometimes referred to as the Supply Version of the Classical Theory of Trade, because Smith and Ricardo paid almost exclusive attention to considerations of supply or production costs in the determination of terms of trade and the gains from trade. The modern version of the classical theory of trade, however, treats supply and demand with equal weight. John Stuart Mill (1806-1873), another renowned classical economist, was the first to indicate that demand considerations must be incorporated into the Comparative Advantage model. But Mill was not very clear or articulate. Both Marshall and Edgeworth are credited with originating and developing the theory of offer curves, which is a geometric technique of demonstrating the theory of reciprocal demand. All these contributions of Smith, Ricardo, Mill, Edgeworth and Marshall put together would constitute the modern version of the classical theory of Comparative Advantage, which is the oldest and the most famous model of international trade.

3.1 Absolute Advantage Model of Adam Smith

Adam Smith attacked the mercantilist views on what constituted the wealth of nations, and what contributed to 'nation building' or increasing the wealth and the welfare of nations. Smith was the first economist to show that goods rather than gold (or treasure) were the true measure of the wealth of a nation. He argued that the wealth of a nation would expand most rapidly if the government would abandon mercantilistic controls over foreign trade. Smith also exploded the mercantilistic myth that in international trade one country can gain only at the cost of other countries. He showed how all countries would gain from international trade through international division of labour. In Smith's model of international trade, every one will be better off without making any one worse off; this view contrasts sharply with the mercantilist philosophy that a country can be better off only by making other countries worse off. Smith's model of world trade is one of harmony of interests among countries, where free trade, like honesty, would come out as the best policy for all. Let us now discuss Smith's model with the help of an example,

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Imagine for the sake of simplicity that we have a world of only two countries and two commodities. Malaysia and India are two such countries. Rubber and textiles are the two commodities. Assume further that in the production of these two goods in the two countries there are constant returns to scale conditions *i.e.* there are constant marginal opportunity cost conditions in both countries in respect of both the goods. Assume further that the production possibilities are such that both countries can produce both the goods if they wish. Finally assume that both the countries are endowed with “ x ” amount of factors of production such that (a) With x factors of production, Malaysia can produce *either* 100 units of rubber *or* 50 units of textiles, or any other mix of rubber and textiles, conditioned by the opportunity cost ratio of 2:1 (This means that if Malaysia wants to produce 1 more unit of textiles it will have to give up the opportunity of producing 2 units of rubber; or alternatively, by giving up the opportunity of producing 1 unit of textiles, Malaysia can produce 2 units of rubber) (b) With x factors of production India can produce *either* 50 units of rubber *or* 100 units of textiles; or some other combination of rubber and textiles subject to the opportunity cost ratio of 1:2 (This means that India has to give up producing 1 unit of rubber in order to produce 2 units of textiles; or alternatively, India has to give up the opportunity of producing 2 units of textiles in order to produce 1 more unit of rubber).



The vagueness in Mill's principle of what is called as Reciprocal Demand was later removed in the 19th century, first by F.Y. Edgeworth and later by Alfred Marshall.

From the above production possibilities (or supply conditions) it is quite clear that Malaysia has an *absolute* advantage in the production of rubber, and India has the *absolute* advantage in the production of textiles. This means there is symmetrical factor distribution between the two countries so that there is scope for specialization in production and also a scope for establishing mutually beneficial trade between the two countries. Let us see how that happens.

First, in a situation of autarky or no trade between the two countries, each country can produce and consume independent of the other country, a combination of rubber and textiles as shown in the following table :

Table 1 : Production and Consumption Levels with Zero Trade

| Countries | Commodities | | Total Output or GNP (units) |
|-----------|-------------------|---------------------|-----------------------------------|
| | Rubber (units) | Textiles (units) | |
| Malaysia | 50 | 25 | 75 |
| India | 25 | 50 | 75 |
| World | 75 | 75 | 150 |

Let us now examine the second possibility, *i.e.* when the two countries “open” their economies to foreign trade. Opening up of trade gives the two countries an opportunity to specialize in production. Malaysia would specialize in the production of rubber, because in this line of production it has an absolute advantage over the other country, India. And India will specialize in the production of textiles, because she has absolute advantage over Malaysia in this particular line of production. Note carefully that in this case there is a scope for *complete* specialization in production in both the countries. The effect of opening trade between the two countries is shown in the following table :

Notes

Table 2 : Production Levels After International Trade

| Countries | Commodities | | Total Output or GNP (units) |
|-----------|-------------------|---------------------|-----------------------------------|
| | Rubber (units) | Textiles (units) | |
| Malaysia | 100 | 0 | 100 |
| India | 0 | 100 | 100 |
| World | 100 | 100 | 200 |

After the trade establishment, Malaysia produces only rubber and no textiles. By using all the “*x*” factors of production, Malaysia now produces 100 units of rubber. This is also the level of new GNP in Malaysia after trade. Compare it with Malaysia pre-trade GNP of 75; the GNP increase has been by 25 units in real terms. In the same way, India would specialize in textile production; by using all “*x*” factors of production to produce only textiles, India will be able to produce 100 units of textiles. India’s new GNP level is equal to 100 units (of textiles production). Before trade, India’s level of GNP was 75 units, which means that India’s GNP also rose by 25 units, thanks to international trade.

As a result of trade, you will notice, the GNP in the two countries went up; this means that both countries became richer after trade as compared to before trade. The world GNP also increased from a pre-trade level of 150 to a post-trade level of 200. There has been complete specialization in production after trade. Both countries have become better off in terms of production (GNP) without making any country worse off. This is for production gains from international trade; and the two countries have been richer.

The two countries are of equal size in terms of GNP or the production capacities. These, then, are the levels of GNP and economic welfare in the two countries in the absence of any trade between them, *i.e.* when they are both “closed” economies.



Notes

Malaysia produces and consumes 50 units of rubber plus 25 units of textiles (*i.e.* a total real GNP of 75). India produces and consumes 25 units of rubber plus 50 units of textiles (*i.e.* a total real GNP of 75).

What about consumption gains of trade ? After trade, have the consumers in the two countries been happier as a result of their countries becoming richer and more specialized in terms of production? This depends on how the gains from production are distributed between the two countries. In other words, the consumption gains to the two countries depend upon the terms of trade *i.e.* how many units of rubber exchange for one unit of textiles between India and Malaysia.

- (a) Suppose the terms of trade are fixed at 1:1, *i.e.* Malaysia and India agree to exchange 1 unit of rubber for 1 unit of textiles. Then, depending upon the taste pattern in the two countries and upon how much or how little they want to trade each other’s goods, the consumption gains can be determined. If the two countries want to consume all that they have produced, it means that their consumers have no taste for the product of the other country. Then there will be no trade between them. Nonetheless the two countries will have had production gains (but note, however, that such a condition of production specialization could have been created even without international trade). We describe this situation as one where the consumers have an extreme bias towards the product of their own country, and such situations are unlikely to exist.

Supposing now, that the consumers in both the countries want to consume some mix of both the goods; then Malaysia could export, say, 40 units of rubber in exchange for 40 units of textile imports from India (at 1:1 terms of trade). The resulting situation will be like what it is in Table 3 as given follows :

Table 3 : Consumption Shares After International Trade

| Countries | Commodities | | Total Consumption (units) |
|-----------|----------------|------------------|---------------------------|
| | Rubber (units) | Textiles (units) | |
| Malaysia | 60 | 40 | 100 |
| India | 40 | 60 | 100 |
| World | 100 | 100 | 200 |

Malaysia, after trade, has produced 100 units of rubber (*See* Table 2). Consumers in Malaysia wish to consume 60 units of rubber, which means that this country can export 40 units of rubber to India. At international terms of trade of 1:1, Malaysia exports 40 units of rubber in exchange for 40 units of textile imports from India. After trade, the consumers in Malaysia are able to consume a combination of rubber and textiles of 60 and 40 (*See* Table 3). Compare these consumption levels with those of pre-trade in Table I here it was 50 units of rubber and 25 units of textiles. Clearly, consumers have gained in terms of both rubber and textile consumption after trade, as compared to before trade.

Similarly for the other country, India imports 40 units of rubber and exports 40 units of textiles at the same terms of trade. India's post-trade consumption of rubber and textiles is 40 and 60 (*See* Table 3) whereas it was 25 and 50 before trade (*See* Table 1). Therefore, as a result of trade, consumers in this country have also gained.

Note that the consumers in both the countries have gained—and they have gained in equal terms; *e.g.*, Malaysia's consumption gain is 25, which is exactly equal to India's consumption gain also of 25 (compare post-trade consumptions of rubber and textiles in the two countries, in Table 3 with their pre-trade consumptions of the two goods in Table 1). This equal share in consumption gains between India and Malaysia has been made possible by 1:1 terms of trade. The gains from trade (in terms of consumption) depend upon the terms of trade. In this particular case, the 1:1 terms of international trade fall exactly between the two opportunity cost ratios (or internal cost ratios) in the two countries. This is the reason why the two countries' share of consumption gains is absolutely equal.

- (b) Let us now assume that the international terms of trade are 2:1 (*i.e.* two units of rubber are exchanged for one unit of textiles in the international market). This would result in a situation of consumption gains such as the one represented in the following Table :

Table 4 : Consumption Shares After International Trade

| Countries | Commodities | | Total Consumption (units) |
|-----------|----------------|------------------|---------------------------|
| | Rubber (units) | Textiles (units) | |
| Malaysia | 50 | 25 | 75 |
| India | 50 | 75 | 125 |
| World | 100 | 100 | 200 |

After trade, Malaysia produces 100 units of rubber; it retains 50 units of it for its own consumption and exports the other 50 units to India. At the new terms of trade of 2:1, Malaysia exports 50

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units of rubber and imports 25 units of textiles. This means, Malaysia's consumption share of rubber and textiles is $50 + 25$ and India's consumption share of the two goods would be $50 + 75$, as you can see in Table 4 above. Compare the situation in Table 4 with the situation in Table 1 and you will notice that Malaysia's consumption of rubber and textiles, before or after trade, has remained the same. This is in spite of production gain of 25 units in Malaysia. India's consumption share, however, after trade has gone up to $50 + 75$ as compared to $25 + 50$ before trade, *i.e.* India's consumption gain has been equal to 50 (*i.e.* $50 + 75$ after trade minus $25 + 50$ before trade). The entire world production gain has been 50 (*i.e.* 200 after trade minus 150 before trade), and all of that world production gain has gone entirely to India. Malaysia's consumption gain has been zero.

This means that the terms of trade (*viz.* 2:1 terms) have been in favour of India alone. They are extremely unfavourable to Malaysia. How? Note here, that the terms of trade at 2:1 are exactly equal to the internal cost ratio in Malaysia (*i.e.* 2:1). What it means is that, for Malaysia, the cost of importing one unit of textiles (which is 2 units of rubber) is exactly the same as the cost of producing one unit of textiles domestically (which is 2 units of rubber). Therefore the rule governing the consumption gain from trade is as follows: If the international terms of trade are equal (or closer) to the internal cost ratio of any country, then that country will not gain at all (or gain less) from international trade regardless of whether that country has achieved production gains from trade. Let us now take another situation. The reverse of what we have taken here, and show the results.

- (c) Let us now assume that the international terms of trade are 1:2 (*i.e.* one unit of rubber sells for 2 units of textiles in the international market), and these terms of trade are equal to the internal cost ratio in India (*viz.* 1:2). In this situation all the consumption gains must go to the other country—Malaysia, reducing India's consumption gain to zero. Consumers in India would, then, consume the same combination of rubber and textiles after trade as they did before trade. This is despite India's achieving production gains of 25 after international trade as shown in Table 5 below:

Table 5 : Consumption Shares after International Trade

| Countries | Commodities | | Total Consumption (units) |
|-----------|----------------|------------------|---------------------------|
| | Rubber (units) | Textiles (units) | |
| Malaysia | 75 | 50 | 125 |
| India | 25 | 50 | 75 |
| World | 100 | 100 | 200 |

After trade, India produces 100 units of textiles—a production gain of 25. It retains 50 units for its own consumption and exports the remaining 50 units of textiles to Malaysia. At the present international terms of trade of 1:2, India will receive 25 units of rubber imports for an export of 50 units of textiles to Malaysia. This means that after trade, India's consumption shares are $25 + 50$ of rubber and textiles, and Malaysia's shares are $75 + 50$ of the two goods. Compare these figures (in Table 5) with those of pre-trade (in Table 1) and you will notice that India's consumption gain has been zero; all the consumption gains have gone to Malaysia. This is because of the terms of trade (which are 1:2) being exactly equal to the internal cost ratios in India. That means, for India, the cost of importing the good has been the same as the cost of producing that good domestically.

Thus, the gains from trade depend upon the terms of trade. As the terms of trade approach nearer to the domestic cost ratios (or internal terms of trade), the country concerned will start experiencing adverse trading conditions internationally and begins to gain less and less from international trade. Internal cost ratios in the two countries, in a model of world trade where there are only two countries, fix the upper and the lower limits to the international terms of trade. As long as the terms of trade lie

somewhere between the two internal cost ratios (of the two countries) both the countries will share the gains from trade—equally or unequally, depending upon whether the terms of trade are exactly between the two cost ratios or whether they are closer to one country's internal cost ratio or the other country's internal cost ratio. If the terms of trade are closer to the internal cost ratios in Malaysia then Malaysia will gain less than the other country would; if reverse is the case, then India will gain less than Malaysia.

It is important to emphasize that production gains alone are not sufficient to determine the profitability of international trade from the standpoint of an individual member country's welfare gain from trade. Production gain is the GNP gain or income gain. How the consumption gains are determined is crucial in determining whether the economic well-being (or the standard of living measured by consumption gains) of a member country has gone up as a result of international trade. International terms of trade therefore, play a very important part in determining the welfare gains from trade. International trade would be beneficial and profitable for a country only if it results in consumption gains. Production gains alone do not constitute profitable trade from the standpoint of the country concerned.

Today we often hear the complaint that the international terms of trade are very unfavourable to the LDCs. We hear that the advanced industrial countries have been receiving extremely favourable terms of trade. If this is true then the benefits of international trade are going largely to the rich countries. This would aggravate global income inequalities which are already astounding. In that case, international trade would be acting as a source of international inequalities of income and wealth as between the developed and the developing countries of the world. International trade, no doubt, creates prosperity through interdependence. But interdependence can work both ways. We must be careful with the nature of interdependence. The producer and the consumer and interdependent, but the bargaining strength of the consumer may be weaker. What the consumer would be seeking, in fact, is interdependence with equity. That characterizes what most developing countries are concerned about—a greater balance, a greater equity in the relationship between developing and the developed countries. Interdependence, resulting from international division of labour, does not necessarily guarantee equitable trade relationship among nations. Free trade, based on perfect competition, may result in unequal distribution of gains among the countries of the world, even while it increases world prosperity in a spectacular way. It is, therefore, very important that the international terms of trade are just and equitable because profitability of trade is dependent on terms of trade.

Adam Smith's model of classical theory, like the rest of the classical theory of trade, emphasizes the gains from trade *i.e.*, the classical theory is a contribution to welfare economics; and welfare economics is value-loaded. In the classical trade theory the welfare of every individual unequivocally improves with trade; and in the limiting case where a large country trades with a small country, the small country gains more from trade than does the large country. Because, the equilibrium terms of trade nearly coincide with the large country's pre-trade internal price ratio. Thus, in the classical theory the introduction of trade does not make anybody or any country worse off. Not only do all countries gain from trade, in the classical model, but also small countries gain more than the large countries do, emphasizing greater equity inherent in international trade mechanism. Unlike mercantilists who saw conflict of interest among nations, the classical economists saw only harmony of interest among trading nations. This is what led them to pronounce that some trade is better than no trade, more trade is better than less trade, and free trade is better than restricted trade. The economists of the Third World today, however, are not so sure about this. In their view, international trade discriminates against countries which are poor, less developed or too small to exercise any bargaining power with those who are rich, powerful and well developed. This is part of the current theme of what is called as "North-South Dialogue" or the "New International Economic Order".

Getting back to the classical trade theory, it is enough to note that Adam Smith showed convincingly how countries could gain from trade. In his model, to recapitulate, one country has an absolute advantage over the other country in one line of production, and the other country has an absolute advantage over the first country in the other line of production. The two countries' internal pre-trade cost ratios are not the same. International terms of trade would lie somewhere between the opportunity

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cost ratios of the two countries, so that both the countries gain from trade in terms of production (or GNP) as well as consumption (or economic welfare) Government non-intervention is a condition, and free trade must be guaranteed.

3.2 Comparative Advantage Model of David Ricardo

Ricardo went even further, and he argued that even if the countries did not have absolute advantage in any line of production over the others, international trade would be beneficial, bringing gains from trade to all the participating countries. Ricardian model is termed as *comparative advantage* model, as opposed to Smith's model of *absolute advantage*. Ricardo's model is a further refinement of Smith's model. Let us now discuss Ricardo's model.



What is absolute advantage?

Once again, let us assume a world of two countries and two commodities. Malaysia and India are the two countries, rubber and textiles are the two commodities. The production possibilities in the two countries are such that both countries can produce both the goods if they wanted; this means that dependence on each other is not inevitable, because the two countries can produce and consume some combination of the two goods, working in isolation (closed economy). Thus far Ricardian model is similar to Smith's model, but the differences arise from here on. In the Ricardian model we assume that one country has the absolute advantage over the other country in *both* the lines of production, and the other country has the absolute disadvantage in *both* the lines of production (contrast this with Smith's model, where one country has absolute advantage in one line, and the other country in the other line). This is in terms of absolute advantage. In terms of relative or comparative advantage, Ricardo assumes that the first country (which has absolute advantage in either line of production) has a greater comparative advantage in one line compared with the other line, in which its comparative advantage is smaller; and the other country's (*i.e.*, the one which has no absolute advantage in either line of production) comparative disadvantage is smaller in the second line compared with the first line of production, where its comparative disadvantage is greater. In brief, one country's comparative advantage is greater in one line of production, and the other country's comparative disadvantage is smaller in the other line of production. International trade would bring production and consumption gains, when these two countries enter into trade with each other. Let us see, with the help of a numerical model, how that happens.

The following table shows the production possibilities in the two countries.

Table 6 : Production Possibilities in India and Malaysia

| Countries | Commodities | | International Opportunity (Cost Ratios) |
|-----------|------------------|----------------|---|
| | Textiles (units) | Rubber (units) | |
| India | 120 or | 120 | 1:1 |
| Malaysia | 40 or | 80 | 1:2 |

With "x" factors of production, India can produce 120 units of textiles or 120 units of rubber, or any combination of textiles and rubber at the constant opportunity cost ratio of 1:1 *i.e.* India can produce 1 unit of rubber (or textiles) by giving up the opportunity of producing 1 unit of textiles (or rubber). India is equally efficient in the production of the two commodities.

Malaysia, on the other hand, is equally inefficient in either line of production compared with India; because, with "x" factors of production Malaysia can produce either 40 units of textiles (compared with India's 120 units) or 80 units of rubber (compared with India's 120 units), or any combination of

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textiles and rubber at the constant opportunity cost ratio of 1:2 *i.e.* Malaysia has to give up the opportunity of producing 2 units of rubber in order to produce 1 unit of textiles, or alternatively it has to give up half a unit of textiles, in order to produce 1 unit of rubber. Notice here that the internal cost ratios in the two countries are not the same. To produce 1 unit of rubber or textiles, India has to give up 1 unit of the other alternative commodity foregone. The cost of producing a unit of either commodity is the *same* in India. In the case of Malaysia, however, the cost of producing the two commodities is *not the same*. Because, to produce 1 unit of rubber, Malaysia has to give up half a unit of textiles; but to produce 1 unit of textiles, it is necessary to give up 2 units of rubber. This means that the unit cost of producing rubber is less than the unit cost of producing textiles, when we measure unit costs in terms of the units of alternative commodity foregone. And as long as the internal cost ratios in the two countries are different, there is scope or potential of gains from international trade between the two countries.

In Table 6 you will notice that India has absolute advantage over Malaysia in the production of both the goods, and Malaysia has absolute disadvantage in respect of both the goods. This is as far as absolute advantage and disadvantage is concerned. In terms of relative or comparative advantages and disadvantages, we have the following things to say, *viz.* (a) India's comparative advantage over Malaysia is greater in the production of textiles (3:1) as compared to rubber (1.5:1). Therefore, India should specialize in the production of textiles rather than rubber, although India can produce both the goods equally efficiently (at a cost ratio of 1:1); (b) Malaysia's comparative disadvantage, in relation to India, is lower in the production of rubber (1:1.5) as against textile (1:3). In addition, Malaysia can produce rubber at a far lower cost of production than textiles (at a cost comparisons of 1 unit of rubber = $\frac{1}{2}$ unit of textiles and 1 unit of textiles = 2 units of rubber). Hence, Malaysia should specialize in the production of rubber, not because it has absolute advantage over India in this line but because its comparative disadvantage is less in this line of production than in the other line of production (*viz.* textiles).

The theory of comparative advantage suggests that a country should specialize in the production and export of those goods in which *either* its comparative advantage is greater *or* its comparative disadvantage is less : and it should import those goods, in the production of which its comparative advantage is less *or* comparative disadvantage is greater. Thereby, a country would be able to maximize its production (GNP) and its consumption (economic welfare).

We have already indicated that India should specialize in the production and export of textiles, because her comparative advantage is greater in that line of production, and that Malaysia should specialize in the production and export of rubber; because Malaysia's comparative disadvantage is smaller in rubber production. Before we examine the gains from trade for the two countries arising out of such specialization, let us consider what would the GNP and welfare levels be, for the two countries, in the absence of trade. Table 7 below represents this equilibrium under conditions of autarky.

Table 7 : Production and Consumption under Autarky

| Countries | Commodities | | Total Production and Consumption (units) |
|-----------|------------------|----------------|--|
| | Textiles (units) | Rubber (units) | |
| India | 80 | 40 | 120 |
| Malaysia | 20 | 40 | 60 |
| World | 100 | 80 | 180 |

India produces and consumes 80 units of textiles plus 40 units of rubber, for a total real GNP of 120 units. Malaysia produces and consumes 20 units of textiles plus 40 units of rubber, for a total real GNP of 60 units. The World GNP is 180 units (*i.e.* the GNP of India plus the GNP of Malaysia). Table 7, therefore, represents pre-trade equilibrium situation.

If, however, the two countries decide to enter into trade breaking their isolation, there would be International specialization in production, leading to increase in world GNP. In Table 7 below, where

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the production gains are shown, note carefully that while there has been gain in terms of World GNP increase, this had come about entirely through production gain in Malaysia, *i.e.* there has been no production gain in or for India.

World GNP has gone up from 180 to 200 after the introduction of trade. This is entirely due to production gains resulting from specialization in Malaysia, after trade. There are no production gains to be derived from specialization as far as India is concerned, because India's level of production or GNP is the same (*viz.* 120 units) both before and after trade. This suggests that small countries tend to benefit more than the large countries from the standpoint of specialization in production resulting from the establishment of international trade. As far as large countries are concerned—India, in this case—they can attain production specialization even without the help of international trade due, mainly, to the large size of their domestic markets. Small countries, on the other hand, need foreign markets in order to achieve specialization in production. Viewed in this light, small countries stand to gain more from trade and specialization than the large countries.

Table 8 : Production Levels after International Trade

| Countries | Commodities | | World Production or GNP (units) |
|-----------|---------------------|-------------------|---------------------------------------|
| | Textiles (units) | Rubber (units) | |
| India | 120 | 0 | 120 |
| Malaysia | 0 | 80 | 80 |
| World | 120 | 80 | 200 |

Unless both countries stand to gain from trade, there can be no trade between them. Production gains have gone to only Malaysia, and India has no production or GNP gains from trade. This means that India, as well as Malaysia, must have some consumption gains in order that there is mutually beneficial trade between the two countries. The consumption gains for the two countries depend upon how the production gain is shared or distributed between the two countries. In other words, how much (or how little) each country gains from trade, in terms of consumption or welfare, depends entirely on the terms of trade. The role of terms of trade in distributing trading gains can hardly be overstated. Let us inspect some possibilities below :

1. If the international terms of trade between India and Malaysia are, say, 3:4 (*i.e.* 3 units of textiles have to be exported in order to import 4 units of rubber, or vice versa) then both the countries will share the benefits equally. This is because these international terms of trade (*viz.* 3:4) lie exactly between the two internal opportunity cost ratios of India and Malaysia. The consumption gains resulting from such International terms of trade for the two countries are shown in Table 9 below :

Table 9 : Consumption Levels After International Trade

| Countries | Commodities | | Total Consumption (units) | Gains in Consumption (units) |
|-----------|---------------------|-------------------|---------------------------------|------------------------------------|
| | Textiles (units) | Rubber (units) | | |
| India | 90 | 40 | 130 | 10 |
| Malaysia | 30 | 40 | 70 | 10 |
| World | 120 | 80 | 200 | 20 |

India, after trade produces 120 units of textiles; she consumes 90 units of it by herself and exports the remaining 30 units to Malaysia. By exporting 30 units of textiles, India receives 40 units of rubber as imports from Malaysia at the terms of trade of 3:4. This means, when the

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trade transacting is completed, Malaysia will have 30 units of textiles plus 40 units of rubber for its own consumption. Compare India's post-trade consumption of the two commodities in Table 9 (*viz.* 90 + 40) with their pre-trade levels in Table 7 (*viz.* 80 + 40), and you will notice a net consumption gain of 10 units (in terms of its own product, textiles. This is shown in the last column in Table 9. Similarly, compare also Malaysia's post-trade consumption of the two commodities in Table 9 (*viz.* 30 + 40) with their pre-trade levels in Table 7 (*viz.* 20 + 40) you will once again see that Malaysia's net trading gain in terms of consumption has been equal to that of India *i.e.* 10 units (also in terms of India's product, textiles). Both countries have gained equally in terms of consumption (*viz.* by 10 units each), and this is shown in the last column in Table 9.

In this particular case, note two things—(a) World production gain of 20 has resulted entirely from the production gain in Malaysia, and the production gain has been in terms of Malaysia's product, *viz.* rubber; (b) consumption gain for the two countries, 10 each for India and Malaysia, has been in terms of India's product, *viz.* textiles. What is important, however, is that although production gains have gone up only for Malaysia, the consumption gains are distributed equally between Malaysia and India. This is due to equitable terms of trade which are at a point exactly mid-way between the internal cost ratios in India and Malaysia. Note also that there has been complete specialization in both the countries : India produces only textiles using all the available economic resources in the country, and Malaysia produces all the rubber it can, by using all of its resources for rubber production alone. There is full employment in both countries, since all economic resources are fully utilized in the production of goods, International specialization has been extreme and complete.

2. If the international terms of trade are 1:2 (*i.e.* where one unit of textiles will be exported in exchange for 2 units of rubber on the international market), then all the consumption gains would go to India; because these terms of trade are equal to the internal cost ratio in Malaysia. In this situation, therefore, the cost of importing one unit of textiles would be the same as the cost of producing it domestically in Malaysia. As a result, Malaysia would gain nothing from the standpoint of consumption, even though the production gains have taken place only in Malaysia. Table 10 illustrates this possibility below :

Table 10 : Consumption Levels after International Trade

| Countries | Commodities | | Total Consumption (units) | Gains in Consumption (units) |
|-----------|------------------|----------------|---------------------------|------------------------------|
| | Textiles (units) | Rubber (units) | | |
| India | 100 | 40 | 140 | 20 |
| Malaysia | 20 | 40 | 60 | 0 |
| World | 120 | 80 | 200 | 20 |

India produces 120 units of textiles, keeps 100 units for its own home consumption and exports 20 units to Malaysia. At international terms of trade of 1:2, India would import 40 units of rubber in exchange for 20 units of textile exports to Malaysia. Thus, India's post-trade consumption combination of textiles and rubber would be 100 plus 40, and that of Malaysia 20 plus 40 (as in Table 10). Compare these figures with the pre-trade consumption levels in the two countries (in Table 7) and you will see that India's consumption gain is equal to 20 and that of Malaysia equal to zero, after the establishment of trade between them. All the production gains (*i.e.* of 20 units) arising out of specialization in Malaysia have gone over to India in the form of consumption gains (of 20 units). Malaysia has, so to speak, all the production gains, and India gets all the consumption gains. In Malaysia, as in India, production has been more specialized after trade; and in fact there has been extreme or complete specialization in Malaysia (as well as India) But in spite of production specialization, Malaysia gains nothing from trade, measured in terms of consumption or living standards. Malaysia's failure to get a share in the consumption gains from trade results from terms of trade which are extremely unfavourable to Malaysia. This, once again, underlines the

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importance of terms of trade can nullify the advantages to be obtained from international specialization resulting from trade. Strictly from the country's point of view (or national as opposed to global standpoint) it is the consumption gains that matter; and consumption gains for a country are determined solely by international terms of trade. Production gains could, if terms of trade go against the country, go away to the other side *i.e.* to the foreign countries. The Third World countries, which allegedly suffer adverse terms of trade today, are increasingly getting frustrated with the mechanism of international trade which is benefiting the advanced industrial countries disproportionately. A mutually beneficial trade requires, as a pre-condition, a mechanism of international trade (or interdependence) consistent with equity or justice in trading terms.

3.3 Opportunity Cost and the Pure Theory of Trade

So far in this unit, the free trade doctrine has been discussed in terms of labour theory of value in which the value of a commodity is determined by the amount of labour time used in its production. Following on from Smith and Ricardo, economists in the nineteenth century subsequently modified and finally abandoned the labour theory of value. It was replaced with the familiar economics 'toolbox' of the present day, in which the value of a commodity is related to its market price, which depends not only on supply and cost conditions, but also on demand.

Neo-classical trade theory

The economists who later overturned the labour theory of value were from continental Europe as well as from Britain. Jean Baptiste Say (1767–1832) was French. Though a firm disciple of Smith, he was the first economist to break away entirely from the labour theory of value. He is generally credited as developing the forerunner of formal equilibrium analysis. Of the three 'founders' of the marginal utility school in the late nineteenth century, Jevons was from England, Menger from Austria (Vienna) and Walras from Switzerland (Lausanne).

The 'neo-classical' thinkers, led by Jevons, Menger and Walras, developed theories of an economic system based on large numbers of producers and consumers. Given a competitive market economy, prices would guide consumers and bring about the most efficient allocation of resources in order to maximise society's income. Neo-classical economists also made great use of mathematical and geometric exposition in order to show functional relationships between important variables such as price and quantity demanded. The use of mathematics ensured greater rigour in the development of their theories.

This is the context in which economists have developed the pure theory of trade. The pure theory of trade treats international trade within the framework of neoclassical theory. It carries through to the present day Adam Smith's belief in the invisible hand of the market, competition and the benefits of laissez-faire policy in relation to international exchange. The pure theory abandons the labour theory of value. Instead it is based on rigorous analysis of consumer and producer behaviour.

The pure theory of trade can be developed through a system of equations and this is the most exact way of presenting it. In this unit, however, we rely on a simple geometric exposition instead of on equations.

Opportunity cost

The doctrine of free trade holds good even if we discard the labour theory of value. The Austrian economist Gottfried Haberler first demonstrated this in the 1930s, utilising the concept of 'opportunity cost'. If the concept of the 'indifference curve' is also introduced into the analysis, it becomes possible for the first time to demonstrate the gains in real income from trade. What follows here is a simplified form of the pure theory of trade based on Haberler's *Theory of International Trade* (1933).

Assume two countries, the US and UK, and two commodities, wheat and cloth. The purpose of the analysis is to demonstrate that the UK gains from specialising in the production of cloth in which it has a comparative advantage, and exporting it to the US in exchange for wheat in which it has a comparative disadvantage. The gains from trade come about because the domestic opportunity cost of cloth in terms of wheat differs from the international opportunity cost of cloth and wheat.

Figure 1 shows the UK (country A). The axis Oy represents units of wheat. The axis Ox represents units of cloth. If all resources available in the UK are devoted to producing cloth, On' units of cloth will be produced. If all the resources available in the UK are devoted to producing wheat, On units of wheat will be produced. Any point on the curve nn' represents a combination of wheat and cloth production, nn' is the production possibility frontier for country A. Assuming all resources are fully employed, country A will be producing at some point on the production possibility curve where both wheat and cloth are produced.

Where on the production possibility curve will country A be located ? To answer this question we need information

- on the *preferences of consumers* in country A for wheat relative to cloth, and
- on the *relative prices* of wheat and cloth. Remember, at this stage we have not introduced the possibility of foreign trade.

Information on relative prices is therefore represented by the *domestic price schedule*. Information on preferences is represented by the *community's indifference curve*.

The indifference curve ii' in Figure 3.1 shows the two goods, wheat and cloth, and the combinations of wheat and cloth that are equally acceptable to consumers in country A. The price schedule pp' shows the relative prices of wheat and cloth, the rate at which they can be traded one for another in country A. In effect, the slope of pp' is the domestic opportunity cost.

The 'no foreign trade' or 'autarky' equilibrium is at e . Here the marginal rate of transformation in production (the slope of nn') is equal to the marginal rate of substitution in consumption (the slope of ii') and is equal to the domestic opportunity cost (the slope of pp'). At e , country A produces Ow of wheat, and Oc of cloth. This equilibrium represents the most efficient use of resources for both producers and consumers and yields the maximum level of real income in country A.

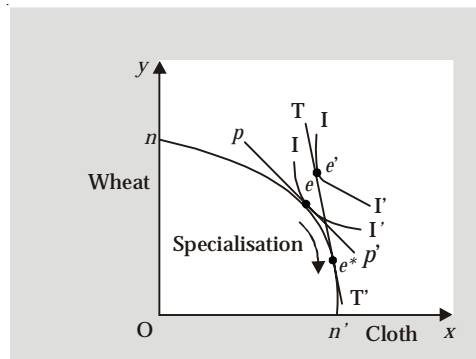


Figure 3.1 : The gains from trade

Gains from trade

We now open up country A to foreign trade. To simplify matters, the analysis uses a partial equilibrium approach, showing the effects of trade on country A only. If we were to introduce country B, as in a general equilibrium approach, more sophisticated geometric tools would be needed.

We know that foreign trade is beneficial if the domestic opportunity cost is different from the international opportunity cost of wheat and cloth. A line TT' is constructed to represent the international terms of trade, *i.e.* the rate at which wheat trades (exchanges) for cloth in the international economy. Because it differs from the domestic opportunity cost it is constructed with a different slope to pp' . TT' also indicates how much cloth country A will produce when it is opened up to trade. It must be tangential to nn' because after trade, country A must still be somewhere on its production possibility curve, producing both wheat and cloth. The location is indicated by the new post-trade

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equilibrium e^* . Country A has moved along the production possibility curve to e^* , where it is producing more cloth and less wheat. It has specialised in cloth at the expense of wheat because it is assumed to have a comparative advantage in cloth.

Exports of cloth trade at the more favourable international opportunity cost represented by TT' . TT' is determined by supply and demand conditions for wheat and cloth in country A and country B. To arrive at the post-trade equilibrium for country A, move out along TT' until a point of tangency is reached with a higher indifference curve II' , at e' . At this point, country A's marginal rate of substitution in consumption (slope of II') is equal to the marginal rate of transformation in production (slope of nn'), and is equal to the relative prices of wheat and cloth in international markets (slope of TT'). II' represents a higher level of real income for country A. Foreign trade, which has led to specialisation and exchange, results in a higher level of real income at the new post-trade equilibrium e' .

Self-Assessment

1. Choose the correct options

- (i) Which of the following key principles of economics can best explain the benefits from specialization?
 - (a) The real-nominal principle.
 - (b) The principle of voluntary exchange.
 - (c) The principle of opportunity cost.
 - (d) The marginal principle
 - (e) The principle of diminishing returns.
- (ii) According to the theory of comparative advantage, specialization and free trade will benefit
 - (a) only the owner of a monopoly.
 - (b) all trading parties who specialize in the production of the good in which they have a comparative advantage.
 - (c) only that trading party that has an absolute advantage in the production of all goods.
 - (d) only the party which specializes the least.
 - (e) only the party which specializes the most.
- (iii) Along the production possibilities curve, specialization and trade usually leads to a move in which the country in question:
 - (a) produces more of both goods.
 - (b) produces more of one good and less of another.
 - (c) produces and exchanges less of both goods.
 - (d) produces less of both goods but exchanges more of both goods with another country.
- (iv) Which of the following IS NOT a reason for the increase in productivity that comes with specialization?

| | |
|-----------------|---------------------------|
| (a) Repetition. | (b) Continuity. |
| (c) Innovation. | (d) Creative destruction. |
- (v) Market systems are desirable because
 - (a) they facilitate exchange and specialization.
 - (b) people cannot be self-sufficient.
 - (c) exchange cannot take place without markets.
 - (d) then everyone pays the same amount in taxes.
 - (e) producers cannot specialize without markets.

- (vi) Why do people specialize and trade?
- (a) Because each person can consume more than they produce by specializing and trading.
 - (b) Because most people are not self sufficient.
 - (c) Because most people are good at producing only one thing.
 - (d) Because people have to have jobs in order to survive.
 - (e) To exploit their absolute advantages.

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3.4 Summary

- Free trade doctrines have a long and fascinating history in Europe. In 1846 Britain repealed the Corn Laws, an historic event which marked the start of the era of free international trade, and lasted until the great depression of the 1870s. The Corn Laws were the duties on imports of grain, which had been in force in England since the middle of the fifteenth century. Other European countries had similar taxes : France, Sweden, Bavaria, Belgium and Holland.
- The reasoning behind the Corn Laws was as follows. Grain, chiefly wheat, is a staple foodstuff, especially important in the diets of labouring people. But its price varies greatly from year to year, depending on the size and quality of harvests. Duties on imports were levied on a sliding scale in order to stabilise the price of wheat. When the domestic price was high because of a poor harvest, duties were lowered to permit imports. When the domestic price was low because of a bumper harvest, import duties were raised.
- The Corn Laws had another important effect. They benefited agricultural interests at the expense of the newly emerging manufacturing sectors. High prices of grain, maintained through restricting foreign supply, increased the value of land.
- Adam Smith attacked the mercantilist views on what constituted the wealth of nations, and what contributed to 'nation building' or increasing the wealth and the welfare of nations. Smith was the first economist to show that goods rather than gold (or treasure) were the true measure of the wealth of a nation. He argued that the wealth of a nation would expand most rapidly if the government would abandon mercantilistic controls over foreign trade. Smith also exploded the mercantilistic myth that in international trade one country can gain only at the cost of other countries. He showed how all countries would gain from international trade through international division of labour.
- Adam Smith's model of classical theory, like the rest of the classical theory of trade, emphasizes the gains from trade *i.e.*, the classical theory is a contribution to welfare economics; and welfare economics is value-loaded. In the classical trade theory the welfare of every individual unequivocally improves with trade; and in the limiting case where a large country trades with a small country, the small country gains more from trade than does the large country. Because, the equilibrium terms of trade nearly coincide with the large country's pre-trade internal price ratio. Thus, in the classical theory the introduction of trade does not make anybody or any country worse off. Not only do all countries gain from trade, in the classical model, but also small countries gain more than the large countries do, emphasizing greater equity inherent in international trade mechanism.

3.5 Key-Words

1. Absolute advantage : The ability of a country, individual, company or region to produce a good or service at a lower cost per unit than the cost at which any other entity produces that good or service.
2. Comparative advantage : In economics, the law of comparative advantage refers to the ability of a party to produce a particular good or service at a lower marginal and opportunity cost over another. Even if one country is more efficient in the production of all goods (absolute advantage in all goods) than the other, both countries will still gain by trading with each other, as long as they have different relative efficiencies

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3.6 Review Questions

1. Discuss comparative advantage model of Ricardo.
2. What is absolute advantage? Discuss.
3. Write a short note on the opportunity cost and the pure theory of trade.

Answers: Self-Assessment

- | | | |
|------------|----------|-----------|
| 1. (i) (c) | (ii) (b) | (iii) (b) |
| (iv) (d) | (v) (a) | (vi) (a) |

3.7 Further Readings



1. Debreu, G. (1951) : "The coefficient of resource utilization," *Econometrica*, 19, 273–292.
2. Dominguez, D. (2006) : "Lower bounds and recursive methods for the problem of adjudicating conflicting claims," *mimeo*.
3. Foley, D. (1967) : "Resource allocation and the public sector," *Yale Economic Essays*, 7, 45–98.
4. Kalai, E. (1977) : "Proportional solutions to bargaining situations : interpersonal utility comparisons," *Econometrica*, 45, 1623–1630.

Unit 4 : Modern Theories of International Trade : Theorem of Factor Price Equalization, H-O Theory, Kravis and Linder Theory of Trade

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- Objectives
- Introduction
 - 4.1 The Factor-Price Equalization Theorem
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Objectives

- After reading this Unit students will be able to:
- Explain the Factor-Price Equalization Theorem.
 - Discuss H-O Theory.
 - Understand Kravis and Linder Theory of Trade.

Introduction

Modern theories of International Trade can be understand studying the following theory:

1. Resources and Trade (The Eli Heckscher and Bertil Ohlin Model)

The Heckscher - Ohlin theory explains why countries trade goods and services with each other, the emphasize being on the difference of resources between two countries. This model shows that the comparative advantage is actually influenced by the interaction between the resources countries have (relative abundance of production factors) and production technology (which influences the relative intensity by which the different production factors are being utilized during the production cycle.

The model starts with the presumption that country A produces two products: food (X) and textiles (Y). These two kinds of production need two different inputs, territory (T) and labour (L), which are available in limited quantities. In the same time, food production (X) requires more land, so it can be said it is territory intensive and textile (Y) production requires more labour, being in this way labour intensive.

Beginning with these presumptions, the Heckscher-Ohlin model explains the implications trade between two countries A and B has, if the countries produce the same products: food (X) and textiles (Y).

The relative resource abundance, factors intensity and trade specialization.

| | | |
|--------------------|-------------------------------------|---|
| Country Product | Inputs and production without trade | The relative abundance and trade specialization in the product for which there is a factor intensity. |
|--------------------|-------------------------------------|---|

Notes

| | Labour (L) | Territory (T) | L/T | T/L |
|-------|------------|---------------|------|------|
| A | X | Y | X | - |
| X | 20 | 95 | 0.21 | 4.75 |
| Y | 10 | 5 | 2.00 | 0.50 |
| Total | 30 | 100 | 0.30 | 3.33 |
| B | X | Y | - | Y |
| X | 3 | 5 | 0.60 | 1.66 |
| Y | 10 | 2 | 5.00 | 1.20 |
| Total | 13 | 7 | 1.85 | 0.53 |

A country having a bigger offer in a resource than in another is relative abundant in that resource and tends to produce more products that use that resource. Countries are more efficient in producing goods for which they have a relative abundant resource.

According to the Heckscher-Ohlin theory, trade makes it possible for each country to specialize. Each country exports the product the country is most suited to produce in exchange for products it is less suited to produce. In our case, country A is relative abundant in territory (T) and will specialize in producing food (X) and country B is relative abundant in labour (L) so it will specialize in producing textiles (Y). In this case, trade may benefit both countries involved.

The changes in relative prices of goods have a powerful effect on the relative income obtained from the different resources. International trade also has an important effect on the distribution of incomes.

2. Specific Factors and Income Distribution (Paul Samuelson - Ronald Jones Model)

There are at least two reasons why trade has an important influence upon the income distribution:

- (a) resources can't be transferred immediately and without costs from one industry to another.
- (b) industries use different factors and a change in the production mix a country offers will reduce the demand for some of the production factors whereas for others it will increase it.

Paul Samuelson and Ronald Jones, two American economists, elaborated a trade model based on specific factors.

This is a tri-factorial model because it is based on 3 factors: labour (L), capital (K) and territory (T). Products like food (X) are made by using territory (T) and labour (L) while manufactured products (Y) use capital (K) and labour (L). From this simple example it is easy to observe that labour (L) is a mobile factor and it can be used in both sectors of activity, while territory and capital are specific factors.

A country having capital abundance and less land tends to produce more manufactured products than food products, whatever the price, while a country with a territory abundance tends to produce more food. If the other elements are constant, an increase in capital will mean an increase in marginal productivity from the manufactured sector, while a rise in the offer of territory will increase the production of food in the detriment of manufacturers.

When the two countries decide to trade, they create an integrated global economy whose manufacture and food production is equal with the sum of the two countries' productions. If a country doesn't trade, the production for a good equals the consumption.

The gains from trade are bigger in the export sector of every country and smaller in the sector competed by imports.

3. The Standard Model of Trade (Paul Krugman - Maurice Obsfeld Model)

The standard model of trade implies the existence of the relative global supply curve resulting from the production possibilities and the relative global demand curve resulting from the different preferences for a certain good.

The exchange rate (the rapport between the export prices and the import prices) is determined by the crossing/intersection between the two curves, the relative global supply curve and the relative global demand curve.

If the other elements remain constant, the exchange rate improvement for a country implies a substantial rise in the welfare of that country.

4. The Competitive Advantage (Michael Porter's Model)

The chain value

Main Activities

(cost advantage) -Logistics--- production-marketing---services

Support activities

quality advantage) ---Firm infrastructure - HR management--stock supply-Technological development

Competitive Advantage

Michael Porter identified four stages of development in the evolution of a country:

- Development based on factors
- Development based on investments
- Development based on innovation
- Development based on prosperity

The theory is based on a system of determinants, called by the author "diamond":

- The capacity of internal factors
- The specific of the domestic market
- The links between the industries
- Domestic competition environment

We will discuss each of the two theorems in detail.

4.1 The Factor-Price Equalization Theorem

The factor-price equalization theorem has enjoyed far less limelight than the Heckscher-Ohlin theorem. Nevertheless, it has attracted considerable attention from well-known economists. Heckscher (1919) stated that free trade equalizes factor rewards completely. Ohlin (1933), on the other hand argued that full factor-price equalization cannot occur in practice. Ohlin asserted that free trade brings about only a tendency towards factor-price equalization, and only a partial factor-price equalization is possible. The later models by Stolper and Samuelson (1941) and Uzawa (1959) also support partial equalization thesis. The later works of Samuelson (1948, 1949, 1953) and of Lerner (1953) make out a case for complete factor-price equalization.

In order to demonstrate how the factor-price equalization takes place as a result of international trade, we will use our model of two countries (country A and B), two commodities (goods X and Y) and two factors of production (capital K, and Labour, L). Before trade (*i.e.* in a situation of autarky) we have the following situations : (1) In country A, a labour surplus country, labour is abundant and cheap and capital is scarce and expensive. Therefore, the K/L (or capital labour ratio) is rather low. And once the trade is opened up, labour becomes relatively scarce and the price of labour will go up. Similarly, capital becomes relatively abundant and hence the cost of capital will go down. This follows directly from the Heckscher-Ohlin theorem that the labour surplus country will specialize in the production and exports of labour-intensive goods. In other words, the abundant factor becomes scarce and the scarce factor becomes abundant, relatively so that (after trade) the K/L will go up in country A. (2) In the capital surplus country—country B—the pre-trade situation is such that capital is abundant and cheap, and labour is scarce and therefore expensive. The K/L will be high before trade. But after trade, this country will specialize in the production of capital-intensive goods, so that the demand for capital will rise relative to that of labour. This will result in capital becoming scarce and the cost of

Notes

capital going up, and labour becoming abundant and the cost of labour going down. The K/L will drop as a result.

In brief, we start with a low capital-labour ratio in country A and a high capital-labour ratio in country B. This is before trade. But after trade capital ratio will rise in country A and fall in country B until the capital ratios are equalized in the two countries. This is the process by which the factor prices (capital-labour ratios) in the two countries are equalized as a result of trade. Note that this factor-price equalization is brought about without the movement of factors of production between the two countries. What brings about this factor-price equalization, then, is the international trade mechanism. It is in this sense that we can argue that international trade in goods and services, is a substitute for international labour and capital movements (or factor mobility). We shall now explore the meaning and process of how this factor-price equalization will, in fact, be brought about. We will do it with the help of Edgeworth-Bowley box diagrams.

The points of origin for Good X and Good Y are as shown in the diagram. Capital and labour are measured along the horizontal and vertical sides of the above box diagram. Obviously, it is a labour surplus country since it has more supply of labour than of capital.

There are three possibilities with regard to the capital-labour ratio (K/L) in the production of good X and Good Y, and they are as follows :

- (a) If the optimum-efficiency locus (or the contract curve) is a linear straight line, such as AB, the capital-labour ratio in the two goods will be equal and remain so regardless of whether more of X is produced or more of Y is produced. In other words, whether we produce at point 1 or 2 or 3 on the line AB, the capital-labour ratio in good X (K/L_x) will be equal to the capital-labour ratio in good Y (K/L_y), which are shown by the equality of the angles of the size of H and G. ($H = G$).

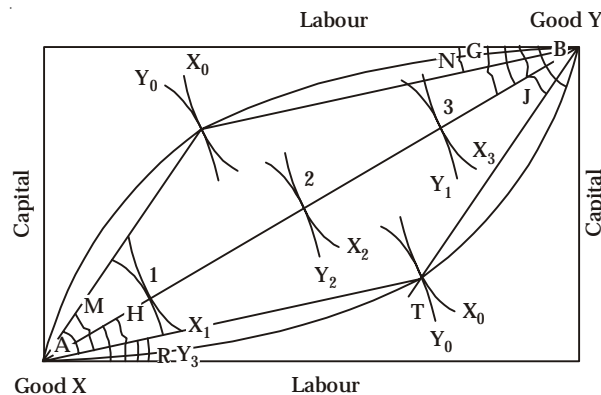


Figure 4.1 : Capital-Labour ratios in Good X and Good Y.

- (b) If the contract curve is non-linear of the type represented by the line AFB (in Figure 4.1), Good X will be a capital-intensive good and Good Y will be a labour-intensive good. Because K/L in X (K/L_x represented by the size of the angle M) is higher than the K/L in Y (K/L_y represented by the size of the angle N).
- (c) Finally, if the contract curve is non-linearly shaped like the sagging line ATB in the Figure, we find that good X is labour-intensive (low K/L_x , equal to the size of the angle R) and good Y is capital-intensive (higher K/L_y , equal to the size of the angle J).

Throughout what follows, we will assume that the contract curve is of the type represented by the non-linear line ATB so that good X is labour intensive and good Y is capital intensive. Even if the country had more capital and less labour, good X will remain labour-intensive and good Y capital-intensive, so long as we have a contract curve of the shape of ATB as shown in Figure 4.1.

This would mean that in our model (i) country A is a labour-surplus country and country B is capital-surplus country, (ii) good X is labour-intensive and good Y is capital-intensive in both the countries, regardless of the differences in factor proportions and factor prices in the two countries. We shall now turn to the process of factor-price equalization between the two countries, as a result of the opening of trade between them. We will first show what happens in the two countries, using separate graphs, and later on put them together in one composite graph.

Labour-Surplus Country's Case

This is shown (In Figure 4.2)

The box ADBC shows factor supplies in country A, a labour surplus country. The contract curve has the shape of ATB. The production isoquants, X_0 and X_1 , are for good X; and Y_0 and Y_1 are the isoquants for good Y. Before trade, the country produces at point T, where X_0 is tangent to Y_0 at factor price ratio represented by the line P_0P_0 . At this point (point T) the capital-labour ratio in good X (K/L_x) is equal to the size of the angle TAC, and the capital-labour ratio in good Y (K/L_y) is equal to the size of the angle TBD. The size of TBD is more than the size of TAC, which shows that good Y is capital-intensive and good X is labour-intensive (or $K/L_y > K/L_x$).

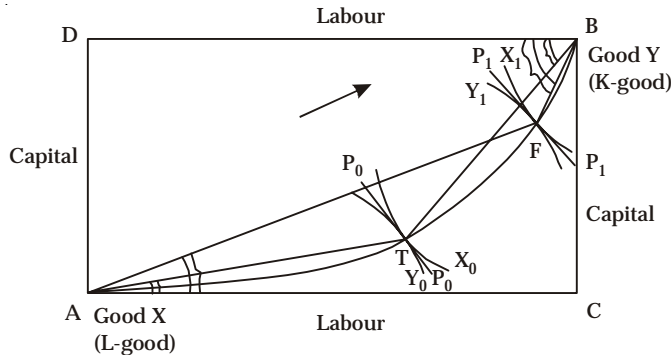


Figure 4.2 : Increase in Capital-Labour Ratio in Labour Surplus Country.

Once trade is opened, this country would specialize in the production (and exports) of good X. This would result in a rightward shift along the contract curve from, say, point T to point F. In moving from point T to F, there is an increase in the production of X and a decrease in the production of Y, which is indicated by an upward movement of the X isoquant and a downward movement of the X isoquant and a downward movement of the Y isoquant. From F we have drawn two rays—FA and FB which would indicate the new capital-labour ratios in the production of X and Y goods at point F. In moving from point T to F, there has been an increase in the capital-labour ratio in X production (from the angle TAC to FAC) as well as Y production (from the angle TBD to FBD). You will, therefore, notice that in country A (a labour surplus country) the capital-labour ratio in both goods production has gone up after the establishment of trade. This is indicated by the change in the slope of factor price line from P_0P_0 to P_1P_1 after trade.

Capital-Surplus Country's Case

The box ABCD in Figure 4.3, represents factor supplies in country B, a capital surplus country.

Country A produced at point T before the introduction of trade. The capital-labour ratio in the production of X was equal to the angle TAC, and in the production of Y it was equal to TBD. Trade results in specialization towards increased production of Y (the capital intensive good), and, therefore, the point of production shifts from point T to, say, point F. As a result of this production-shift, we find that the capital-labour ratios in the production of both X and Y have gone down in this country. In respect of X, the capital-labour ratio has decreased from the angle TAC to FAC; and in respect of Y; it has decreased from TBD to FBD. The change in capital-labour ratios in the production of both X and Y is indicated by the change in the slope of the relative factor-price ratio line from P_0P_0 to P_1P_1 .

Notes

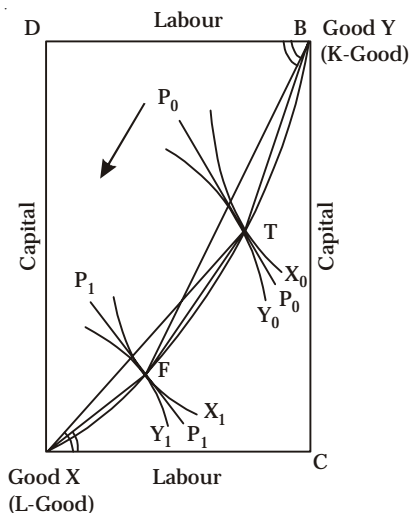


Figure 4.3: Decrease in Capital-Labour Ratio in Capital Surplus Country.

Thus, in the capital surplus country—country A—the capital-labour ratio has decreased in the production of both X and Y goods, as a result of trade. When this is combined with the increase in capital-labour ratio in the production of the two goods in country B—a labour surplus country, we eventually get to a point where the capital-labour ratios (or factor prices) are equalized in the two countries. We will now show this combined result in a composite graph which is drawn in Figure 4.3.

Factor Price Equalization : A Composite Graph

In the succeeding graph there are two boxes, one for each country. The box ABCD is for country B, the capital surplus country, and the box ACFG applies to country A which is the labour surplus country. There is a common point of origin at A for good X the labour-intensive good; but for good Y, the capital-intensive good, the point of origin is at point F in case of country A, and at point X in case of country B.

The contract curves, in the two countries, are such that good X is labour-intensive in both the countries and good Y is capital-intensive in both the countries, at all factor price ratios. This applies regardless of the fact that one country is capital rich and the other is labour rich, because the production functions of a given good must be the same throughout in all countries, irrespective what the factor price differences are between the countries.

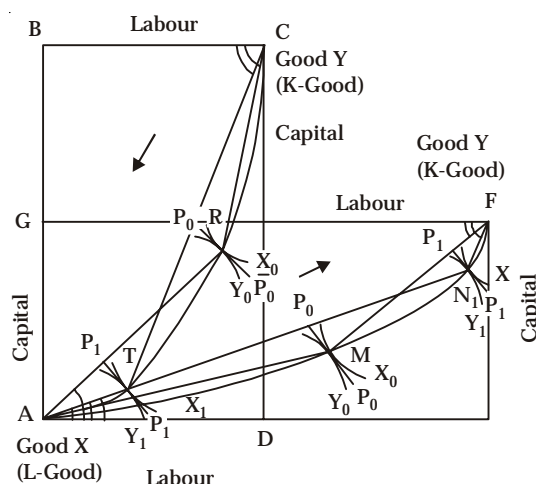


Figure 4.4 : Factor Price Equalization shown jointly.

Notes

Under autarky, country A produced at point M and country B at point R. The two countries' factor price ratios were different, as measured by the slope of the line $P_0 P_0$ in the two countries. After the establishment of trade between the two countries, there is a shift in the equilibrium production points : it shifts from point M to N in country A, and from point R to T in country B. $P_1 P_1$ factor price ratio line in country A (at point N) has the same slope as the $P_1 P_1$ line for country B (at point T), which shows that trade has led to equalization of factor prices in country A and B.

You may wish to compare the capital labour ratios in the two goods in the two countries, before and after trade in order to be more clear about how the factor price equalization has resulted after trade.

In Figure 4.4, you will notice the following.

- In country A, at the pre-trade equilibrium production point M, the capital labour ratio is equal to (the angle) MAE in X production, and it is equal to MFG in Y production. After trade, when the country moves to production equilibrium point N, the capital labour ratio increases to (the size of the angle) NAE in X production, and to NFG in Y production.
- In country B, at the pre-trade production point of R, the capital labour ratios in the production of X and Y are measured by the angles RAB and RCD, respectively. The post-trade capital labour ratios in X and Y production (at point T) have gone down to the size (of the angle) of TAE and TCD, respectively.
- After trade, the capital-labour ratio in X production is NAE in country A and TAE in country B. Since $NAE = TAE$, we can say that the factor-price ratio in X production is equalized between the two countries. In the same way, the capital labour ratio in production, after trade, is TCD in country B and NGF in country A. TCD is equal to NFG, and this shows equalization of factor price ratio in Y production in the two countries.

Thus, we see that international trade brings about equalization of factor prices between countries even in the absence of factor movements between the countries. It is in this sense that we argue that international trade in goods and services, is a substitute for international movement of labour and capital. In other words, international trade brings about equalization of both the product prices and the factor prices. This completes our demonstration of the factor price equalization theorem.



Does factor-price equalization indeed take place in real life ?

Obstacles to Equalization of Factor Prices

Let us remind ourselves that factor price equalization would imply that after the establishment of trade, the capital-labour ratio in the production of a good will be the same in both the countries. This does not mean that the capital-labour ratio in the production of the two goods will also be equalized. This question now is, how far the factor price equalization will conform to the actual reality.

The factor price equalization theorem is based on certain assumptions which are rather unwarranted in real life. The following key points are worth taking note of, because they constitute obstacles to the equalization of factor prices in the real world.

First, the theorem assumes complete free trade, *i.e.* the absence of tariff and non-tariff barriers to trade. It also assumes that there are no transport costs in exporting and importing goods and services between nations. In real world, we know that both exist. Their very existence, therefore, will prevent factor price equalization that free trade could have otherwise brought about. For this reason, Ohlin and others ruled out the possibility of complete equalization of factor prices. They believed that only a partial equalization was possible. Indeed, they argued that there will at best be only a tendency towards factor price equalization.

Complete equalization of factor prices could take place if, and only if, the factors of production were themselves internationally perfectly mobile. In that sense, international trade in goods and services is not a perfect substitute for international factor mobility. It is at best a close substitute.

Notes

Secondly, international trade would only lead to partial or incomplete specialization, but by no means to complete specialization in production. This will, therefore, rule out the possibility of complete factor price equalization. At best, we can expect partial equalization of factor prices.

This conclusion is based on the premise that there are diminishing returns to scale conditions in the production of all goods in all countries.

Thirdly, the theorem is based on the assumption of perfect competition and diminishing returns to scale in production. In the real world, however, there is imperfect or monopolistic competition on the one hand, and on the other hand, there are increasing returns to scale in the production of some goods. This would destroy the credibility of the factor price equalization theorem.

Fourthly, for complete factor price equalization to take place the number of factors should not exceed the number of products. In a model of two countries, two factors and two goods, it is possible to show factor price equalization. But, in a real world model of many countries, many factors and many goods and services, it is not possible to argue for a complete equalization of factor prices.

Fifthly, the theorem would collapse once we show that the production functions are not identical in all the countries taking part in international trade. The theorem will not hold good if the factor intensity reversal takes place, because in that event a capital rich country and a labour rich country will export the same good by using different techniques of production suited to their factor endowments. Factor intensity reversals create obstacles to factor price equalization.

Finally, the theorem assumes that factor supplies remain fixed in every country. This is unrealistic, because we do know that the supplies of labour and capital keep constantly changing over time, almost in every country.

We can, therefore, conclude by saying that (a) factor price equalization is not possible in the real world, because the reality of the world does not conform to the assumptions of the factor price equalization model. This does not mean that the model or the theorem is invalid; it only means that the assumptions of the model are unrealistic, which therefore lead the model to draw unrealistic conclusions, (b) given the relative factor immobility between countries, international trade would offer the best chance for equalization of factor prices and factor income between the countries of the world. The factor price differentials would be even greater without international trade than it would be with international trade.

The Stolper-Samuelson Theorem

According to their theorem, the opening of trade (*i.e.* free trade) will benefit the relatively abundant factor and hurt the relatively scarce factor of production. Let us now demonstrate their theorem. Stating their assumptions first.

1. The country, in question, is producing only two goods, say, steel and cloth, with the help of two factors of production, *viz*, capital and labour.
2. Steel is capital intensive and cloth is labour intensive, and the production functions are homogeneous of degree one.
3. The supplies of both factors are fixed.

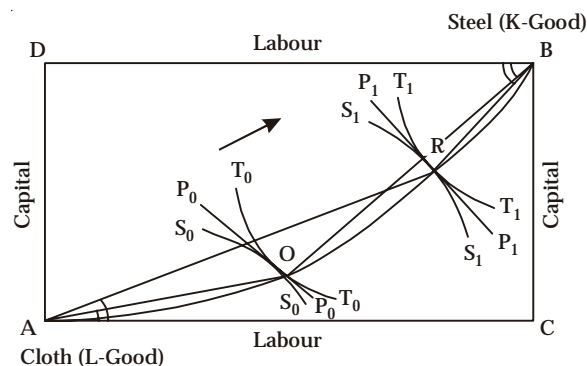


Figure 4.5 : Stolper-Samuelson Theorem.

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4. The country is assumed to be labour-abundant and capital scarce.
5. There is perfect competition in both the factor market as well as the commodity market.
6. International terms of trade remain fixed.

The fixed amount of labour and capital is shown by the Edgeworth box in Figure 4.5.

The origin of cloth isoquant (T_0 and T_1) is A and that of steel (S_0 and S_1) is B. Given the non-linear contract curve sagging below, cloth is labour-intensive and steel is capital-intensive at all production levels of cloth and steel. In the absence of trade, (i.e., autarky) the production takes place at Q on the contract curve, where the cloth and steel isoquants, T_0T_0 and S_0S_0 are tangent to each other. The factor price ratio at Q is represented by the line P_0P_0 . At this point, the capital-labour ratio in cloth is equal to the size of the angle QAC, and that of steel equal to the angle QBD.



In 1941, W.F. Stolper and Paul A. Samuelson worked out from the Heckscher-Ohlin theory, a theorem of their own, concerning the effect of trade on income distribution.

When trade opens up, the country will move towards increased production of cloth (the labour-intensive good) and reduced production of steel (the capital-intensive good). The production will now take place at R where the higher cloth isoquant (T_1T_1) is tangential to the lower steel isoquant (S_1S_1), and the new set of factor price ratio at R is indicated by the line P_1P_1 . Note that P_1P_1 is steeper than P_0P_0 . This indicates an increase in the capital-labour ratios in the production of both cloth and steel. The capital-labour ratios in the production of both cloth and steel. The capital-labour ratio in cloth has gone up from (the size of the angle) QAC to RAC, and in steel, it has gone up from QBD to RBD.

Trade must increase the relative price of cloth which is exported by the country. This is obvious from the following related graph (Figure 4.6). Point Q in Figure 4.6, corresponds to point Q in Figure 4.5. Similarly the line P_0P_0 in the former diagrams corresponds to the line P_0P_0 in the latter diagram. The production equilibrium point R (after trade) in Figure 4.5, has a correspondence with point R in Figure 4.6. You will notice in Figure 4.6, the relative prices of cloth and steel are such that they correspond to the line P_0P_0 which is tangent to the transformation curve at point R. This would mean that the price of cloth has gone up relative to steel.

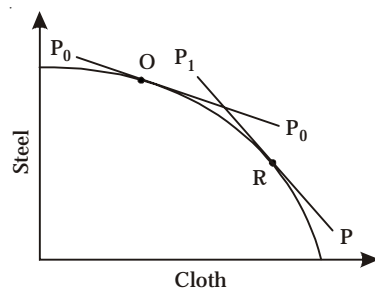


Figure 4.6

As the cloth production expands the resources will be transferred from steel industry to cloth industry. But the steel industry will release such quantities of capital that the cloth industry can only absorb at lower price per unit of capital released. Consequently, the remuneration of capital will have to fall in order that all the released capital is absorbed. On the other hand, the expanding cloth industry will want to employ more labour than the amount of labour released by the contracting steel industry. Consequently, the price of labour is bid higher, and the remuneration of labour will have to go up.

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This would, in the end, mean that the absolute income share of labour will go up and that of capital will go down. Trade will, therefore, increase the welfare of the factor of production which is used intensively in the expanding industry, while the factor of production used intensively in the contracting (or import-competing) industry will suffer loss of welfare as a result of trade. In other words, trade increases the welfare of the abundant factor.

4.2 The Heckscher-Ohlin Theorem (H-O Theory)

Recent contributions to the pure theory of international trade have relied heavily on the factor proportions analysis developed by the two Swedish economists, Eli Heckscher (1919) and Bertil Ohlin (1933). According to their theory, the immediate cause of international trade is, the differences in the relative prices of commodities between the countries, and these differences in the commodity prices arise on account of the differences in the factor supplies in the two countries.

The Heckscher-Ohlin model is based upon the following postulates :

1. There are only two factors of production—labour and capital.
2. There are only two countries and they differ in factor abundance, *e.g.* one country is capital abundant but labour scarce and the other country is labour abundant but capital scarce. In other words, the two countries differ in factor endowments.
3. There are only two commodities. Both goods involve the use of both factors. The production functions are such that the relative factor intensities are the same for each good in the two countries. In other words, regardless of what the factor proportions or factor prices are in the two countries, one commodity is always capital intensive in both countries, and the other commodity is labour intensive in both countries.

On the basis of these postulates, the Heckscher-Ohlin theorem predicted that the capital surplus country specializes in the production and exports of capital intensive goods, and the labour surplus country specializes in the production and exports of labour intensive goods. We will now proceed to demonstrate this well-known structure of trade prediction of the Heckscher-Ohlin model.

Factor Abundance Defined : The Two Criteria

In the Heckscher-Ohlin model, the two countries are distinguished by the differences in factor endowments or 'factor abundance' *i.e.* one country is capital abundant (or capital rich) and the other country is labour abundant (or labour rich). The question is, what is meant by 'factor abundance' ? Two alternative definitions have been given for the term 'factor abundance'.

1. Factor abundance can be defined in terms of factor prices. According to this "price criterion" a country in which capital is relatively cheap and labour is relatively more expensive, is regarded as the capital abundant country, regardless of the physical quantities of capital and labour available in this country compared with the other country. By the same token, a labour abundant country would be defined as one where labour is relatively cheaper and capital is more expensive. This criterion takes into account both the supply and demand conditions for the two factors of production in the two countries. Ohlin uses the price criterion of the relative factor abundance, but he argues that the differences in factor prices in the two countries, are due to differences in factor supplies in the two countries. In other words, Ohlin believes that supply factor plays a predominant role in determining the relative factor prices in a country.
2. Factor abundance can be defined in physical terms. According to the "physical criterion", a country is relatively capital abundant if and only if it is endowed with a higher proportion of capital to labour than the other country. By the same token a labour abundant country is defined as one which has more amount of labour and less amount of capital in physical terms.

This is a pure supply criterion, and it ignores the effects of demand conditions.

These two alternative definitions are not equivalent. The Heckscher-Ohlin prediction with regard to the structure of trade would follow only if we use the price criterion, but it does not necessarily hold good if we use the physical criterion to define factor abundance. Ohlin himself defined relative factor abundance using the price criterion. He thought that if capital is relatively cheap in one country, that

country must be abundant in capital supply; and if labour is relatively cheap in the other country, it must be a reflection of the labour abundance in that country.

It now remains for us to show that one country, say country A, is capital abundant and it exports capital-intensive good, and the other country, say country B, is labour abundant and, therefore, it will export labour-intensive good. We shall examine these Heckscher-Ohlin proposition by using both the definitions of factor abundance—not together but separately.

Price Criterion of Factor Abundance

Starting from the definition of factor abundance in terms of factor prices, it is easy to establish the Heckscher-Ohlin theorem. It is easily demonstrated in the succeeding diagram.

The two factors—capital (K) and labour (L) are measured along the vertical and horizontal axis, respectively. The set of factor price ratios in country A, a capital surplus country, are shown by the parallel lines P_0P_0 . The relative steepness of these lines reflects the fact that capital is cheaper and labour is dearer in country A. Similarly, the lines P_1P_1 reflect the factor price ratios in country B. The relative flatness of these lines shows that labour is cheap and capital is expensive in country B, a labour surplus country.

Then we have the two isoquants labelled aa and bb , and the two isoquants cut each other only once, *i.e.* at point Q. This indicates that there is no reversal of factor intensity, meaning that one commodity is capital intensive in both the countries (K good represented by the isoquant aa) and other commodity (Good represented by the isoquant bb) is labour intensive in both the countries. This is in conformity with the Heckscher-Ohlin assumption that the production functions are identical for each good in the two countries.

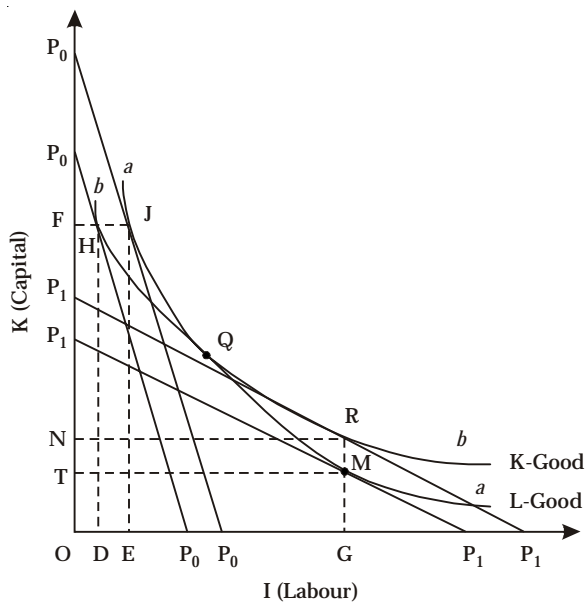


Figure 4.7: Price criterion of factor abundance.

We can now see how the capital surplus country would export capital-intensive good, and labour surplus country would export labour-intensive good. Take country A first. The cost of producing one unit of K good is made up of HD amount of capital plus HF amount of labour, because at point H there is a tangency between the isocost curve and the isoquant for K good. The cost of producing one unit of L good consists of JE amount of capital (which is equal to HD) but more labour *viz.* FJ amount of labour (as against FH amount needed to produce one unit of K good). In other words, in country A, in order to produce one unit of L good, you need to use the same amount of capital as in K good

Notes

(viz. HE = JE) but more labour (JF as against HF). This means that country A can produce K good cheaper. Hence the capital surplus country (country A) would specialize in the production and exports of capital-intensive good (K good). This is for country A.

Take the case of country B now. The cost of producing one unit of L good is made up of MG amount of capital plus MT amount of labour, but the cost of producing one unit of K good consists of the same amount of labour viz. NR (MT) but more amount of capital i.e. RG (as against MG needed to produce one unit of K good). This means that country B can produce L good at a relatively lower cost of production per unit. Therefore, country B (a labour surplus country) would specialize in the production and exports of L good (a labour intensive good).

To sum up : (a) Factor price ratios in country A and B are different, which reflects that country A is capital-abundant and country B is labour-abundant, (b) one commodity is capital intensive in both the countries (viz. K good) and the other commodity is labour intensive in both the countries (L good), because point J lies to the right of point H in country A, and in country B, point R lies to the left of point M. (You may draw the vectors from points H, J, R and M to the point of origin, O, and you will see the capital-labour ratios in the production of the two goods in the two countries. This is not done in Figure 4.7 in order not to clutter the graph), and (c) country A can produce K good cheaper, and country B can produce L good cheaper. Therefore, country A exports K good and country B exports L good. The country which is relatively abundant in a given factor of production will export a commodity which involves the use of a relatively abundant factor of production.

Thus, starting from the definition of factor abundance in terms of factor prices, (or price criterion) it is easy to establish the Heckscher-Ohlin theorem. Incidentally, we might also say that reverse of the theorem also holds good, i.e. if a country exports capital intensive good, then capital must be its cheaper factor of production. Likewise, if a country exports labour-intensive good, then labour must be a cheaper factor of production in that country.

Physical Criterion of Factor Abundance

Defining factor abundance in physical terms would mean that country A would be capital-abundant and country B would be labour abundant if the following condition holds good :

$$\left(\frac{K_A}{L_A} \right) > \left(\frac{K_B}{L_B} \right)$$

where K_A and L_A are the total amounts of capital and labour, respectively, in country A, and K_B and L_B are the amounts of capital and labour, respectively, in country B.

We will now show that country A, a capital abundant country by the physical criterion of abundance, has a bias in favour of producing the capital-intensive good; and that country B, a labour abundant country will have a production bias in favour of labour-intensive good production. Diagram 8 reflects the nature of these biases in the two countries in respect of the two goods.

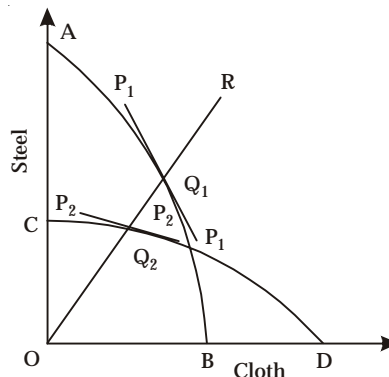


Figure 4.8 : Factor abundance defined in physical terms.

Notes

The production possibility curve of country A is AB that of country B is CD. We assume that steel is the capital intensive good and cloth is the labour intensive good. Suppose, the two countries produced the goods in the same proportion—along the ray OR— then country A would produce at Q_1 and country B at Q_2 , on their respective production possibility curves. Note that the slope of country A's production-possibility curve at Q_1 , is steeper than the corresponding slope of country B at Q_2 . Similarly, the commodity price line P_1P_1 is steeper than the line P_2P_2 . All this implies that steel is cheaper in country A and cloth is cheaper in country B, if the two countries are producing at Q_1 and Q_2 respectively. Country A would, therefore, tend to expand production of steel and country B would do so for cloth. This means that country A, a capital abundant country, has a production bias in favour of capital-intensive good, steel, while the labour-abundant country, country B, has a bias in favour of producing the labour intensive good, viz. cloth.

Does it follow from this that country A would export steel and country B would export cloth ? The answer depends very much upon the demand factors. This gives rise to two possibilities : (1) if the consumption bias and the production bias are towards the same direction, then country A would import rather than export steel, and country B would import rather than export cloth. The Heckscher-Ohlin prediction would then be invalid, (2) if the consumption and production biases are in the opposite direction, then the Heckscher-Ohlin prediction will be valid, viz. country A would export steel and country B would export cloth. Let us illustrate these two cases.

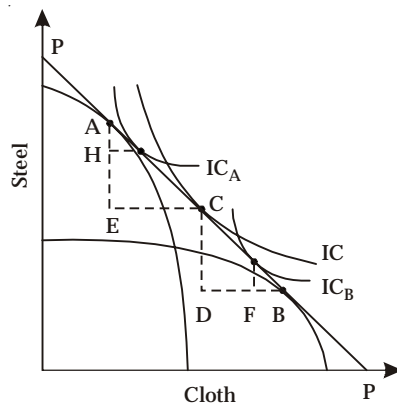


Figure 4.9 : Consumption and production biases in opposite direction.

After the establishment of trade between the two countries, country A's production shifts to point A (towards greater production of steel), and country B's production shifts to point B (towards greater production of cloth). This means that the capital surplus country (country A) specializes in the production of the capital-intensive good (steel), and the labour surplus country (country B) specializes in the production of the labour-intensive commodity (cloth). There is greater degree of specialization but by no means complete specialization, in the two countries, because of the diminishing returns to scale conditions in the two countries in respect of both the goods.

The line PP stands for the international terms of trade line, which is also the relative factor price ratio line after trade is established between the two countries. (Note incidentally that factor prices will be equalized as a result of trade. We shall discuss this later under factor price equalization theorem, which is the second proposition of the Modern theory of international trade).

If, and only if, the demand biases in the two countries are such that we have an indifference curve like IC in Figure 4.9A, the Heckscher-Ohlin theorem will hold good. The two countries produce at points A and B but consume at point C. It is important that consumption point, such as point C, must lie to the right of point A but to the left of point B in order for Heckscher-Ohlin prediction to be valid. In this case, it has happened in Figure 4.9. Country A exports an amount of steel equal to the size AE

Notes

and imports cloth equal to the size EC. Country B exports DB amount of cloth and imports CD amount of steel. The capital surplus country, therefore, is exporting capital intensive good and it is importing labour-intensive good.

Similarly, the labour surplus country is exporting labour-intensive good and it is importing capital-intensive good.

In this case, therefore, the Heckscher-Ohlin prediction would be valid. We emphasize that it is important that consumption should take place to the right of where the production is taking place in country A, and to the left of where the production is taking place in country B. Only then the two countries will specialize in the production as well as export of the commodities which involve intensive use of their respectively abundant factors of production. It is by no means necessary that the taste pattern in the two countries must be identical. In Figure 4.9, we have made that assumption in drawing a common indifference curve IC both for country A and country B, but it is not necessary. One can feel free to assume that taste patterns in the two countries are different, if that sounds more realistic. For instance, in Figure 4.9, we have also drawn IC_A and IC_B which represent different demand (or utility) patterns in country A and country B. This would only mean that country A is consuming at point R while it produces at point A, and that country B is producing at point B and consuming at point T. Nevertheless, country A exports steel (equal to AH amount) and imports cloth (equal to HR amount); and country B exports FB amount of cloth and imports TF amount of steel. Therefore, as long as the consumption points lie to the right of where production is taking place in country A and to the left of where the production is taking place in country B, the Heckscher-Ohlin prediction concerning production specialization as well as commodity composition of exports and imports by countries would perfectly hold good.

If, on the other hand, the demand patterns are so unidentical that the indifference curve of country A is tangent at point A (not drawn in Figure 4.9) and the indifference curve of country B is tangent at point B (also not drawn in Figure 4.9), then it would mean that country A and B choose to consume where they produce. There will then be no trade, but a situation of autarky. In such an event, the Heckscher-Ohlin prediction will still be valid but only insofar as it related to production specialization but not structure of trade. There will, in fact, be no trade to speak of.

Now, let us take the other case, *i.e.* when the consumption and production are biased in the same direction. This case is illustrated in Figure 4.10.

Figure 4.10 reproduces the same information as in Figure 4.9, except that in Figure 4.10, the demand in country A is biased toward the capital-intensive good and that in country B the demand is biased toward the labour-intensive good. Therefore, as a result, country A produces at point A, specializing in the production of steel. It consumes at point D, given the utility pattern represented by indifference curve IC_A . This means that country A exports EA amount of cloth and imports ED amount of steel. Therefore, country A which is a capital surplus country, is exporting labour-intensive good (cloth) and importing capital-intensive good (steel). This is in direct conflict with the Heckscher-Ohlin prediction concerning the commodity structure of trade.

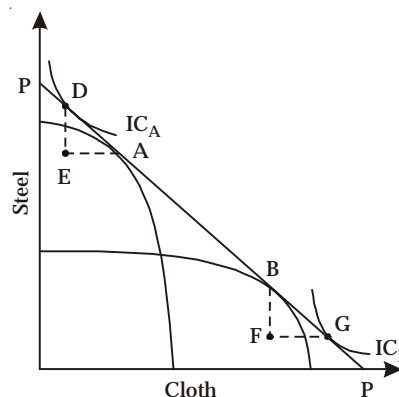


Figure 4.10 : Consumption and production biases in the same direction.

Notes

Likewise, country B specializes in the production of cloth; it produces at point G. But it consumes at point G in response to its utility pattern represented by the indifference curve IC_B . Therefore, it exports BF amount of steel and imports FG amount of cloth. Once again we notice that country B, which is a labour-surplus country exports capital-intensive good (steel) and imports labour-intensive good (cloth). The Heckscher-Ohlin prediction is overturned.

In this case, represented in Figure 4.10, we have a situation of what is sometimes described as “demand reversal”. Here, not only the two biases—consumption and production—are in the same direction but also the consumption bias more than offsets the production bias. Consumption point D lies to the left of production point A in country A; and in country B the consumption point G lies to the right of the production point B. When such a demand reversal takes place, the capital surplus country would export labour-intensive good and the labour-surplus country would export the capital intensive good. The Heckscher-Ohlin prediction would then be invalidated by the demand reversal.

To sum it up : factor abundance can be defined in two ways in the Heckscher-Ohlin trade model. The two definitions are not equivalent. Only according to the price criterion, the prediction of the model would be valid. If the physical criterion is used, the prediction will be valid only if the demand reversal does not take place.

Critical Evaluation of the Heckscher-Ohlin Theorem

In the area of pure theory of international trade, the Heckscher-Ohlin model occupies a very prestigious position. The very fact that many well-known economists like Leontief, Walters, Minhas and others have tried to test the empirical validity of the Heckscher-Ohlin theorem using econometric models, stands as a testimony of the prestige of the model. Bertil Ohlin was also awarded a Nobel Prize in Economics for his contribution to the pure theory of trade in the year 1978.

Although the factor proportions theorem developed by Heckscher and Ohlin provides a thorough and plausible explanation of international trade as compared with the classical comparative advantage model, yet it is not free from criticism. We have already seen how the Heckscher-Ohlin theorem will turn out to be invalid when the demand reversal takes place. We will, therefore, examine only the first two lines of criticism in what follows.



Notes

The Heckscher-Ohlin theorem has been criticized mainly along the following three lines: (a) Factor intensity reversal argument; (b) Leontief Paradox, *i.e.* the results obtained by empirical tests conducted by Leontief and others; and (c) Demand reversal argument.

Factor Intensity Reversal Argument

The Heckscher-Ohlin theorem was based on the assumption that the production functions are different for different goods but they are identical for each good in the two countries. This, in other words, meant that one good is capital intensive (with higher capital-labour ratio) and the other good is labour-intensive (with lower capital-labour ratio); but the same good, which is capital-intensive in one country, must be capital intensive in the other country also, and the labour intensive good remains labour intensive in both the countries. This assumption is guaranteed when the two production isoquants—for the capital-intensive and the labour intensive goods—cut each other only once but not more than once. In Figure 4.7, this is shown to happen at point Q. The demonstration in Figure 4.7 is consistent with the Heckscher-Ohlin assumption of non-reversability of factor intensities. What will be the effect if the factor-intensity reversal takes place ? If it does take place, then the two isoquants would cut each other more than once and the Heckscher-Ohlin theorem would turn out to be invalid. This case is demonstrated in Figure 4.7.

The two production isoquants for steel and cloth cut each other twice in the succeeding diagram—once at point A and the second time at point B. Now let us see the results. The factor price ratios in country A (capital surplus country) are represented by the parallel lines P_0P_0' , P_1P_1' represent the factor price ratios in country B (labour surplus country). This is as in Figure 4.7 also.

Notes

In Figure 4.10, note the following factors.

(a) In country A, steel is labour-intensive and cloth is capital-intensive. In order to produce one unit of either steel or cloth, country A has to use the same amount of capital but more labour for steel than for cloth. Cloth has a higher capital labour ratio and steel has a lower capital labour ratio. Therefore, a capital rich country like country A would specialize in the production and exports of the capital intensive good, which is cloth. It would import steel which is a labour intensive good. (b) In country B, cloth is a labour intensive good and steel is a capital intensive good. Because, to produce one unit of cloth, it takes a given amount of labour and smaller amount of capital as compared to steel. Steel takes the same amount of labour but more capital per unit of output. In country B, therefore, steel has a higher capital labour ratio than in cloth. Naturally, country B (which is a labour surplus country) would choose to specialize in the production and exports of the labour-intensive good, *viz.* cloth. Country B, therefore, would export cloth and import steel which is capital intensive.

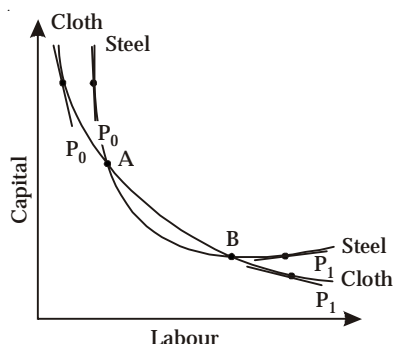


Figure 4.11 : Factor intensity reversal.

In this case of factor intensity reversal, as we saw above, both the countries produce and export the same commodity *i.e.* cloth. In the capital rich country, (country A) it is a capital-intensive product, and in the labour rich country, (country B) it is a labour-intensive product. That means the same product (*viz.* cloth) is capital-intensive in one country but labour-intensive in the other. The same thing applies to steel as well. Steel is a labour intensive product in the capital rich country (country A), and it is a capital-intensive product in the labour rich country (country B). This is a situation of factor intensity reversal. When this takes place, both countries end up producing and exporting the same commodities (cloth) and importing the other commodity (steel). This would invalidate the Heckscher-Ohlin prediction regarding the structure of commodity trade.

In Figure 4.11, the two isoquants cut each other more than once, suggesting factor-intensity reversal to the left of point A and to right of point B. For factor intensities to reverse themselves, it is not, however, necessary that the two isoquants intersect each other more than once. Even if they do not cut each other even once, there could be reversal of factor-intensities as shown in Figure 4.12.

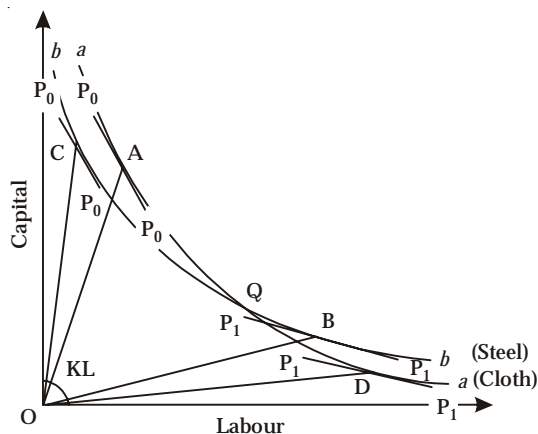


Figure 4.12 : Factor intensity reversal—another case.

Notes

In Figure 4.12, the isoquants for steel and cloth, are tangent to each other at point Q; and the factor intensities of the two products reverse themselves on either side of point Q. Given the factor price ratios of country A represented by the lines P_0P_0 , cloth has a higher capital labour ratio (K/L) as compared to steel in country A. This is indicated by the vectors OC and OA. In country B, however, steel has a higher K/L ratio than cloth, and this is indicated by the two vectors OB and OD. In other words, cloth is capital-intensive and steel labour-intensive in country A, whereas in country B steel is capital-intensive and cloth labour-intensive. This is another case of factor intensity reversal. Factor-intensity reversal can also be demonstrated as in Figure 4.13.

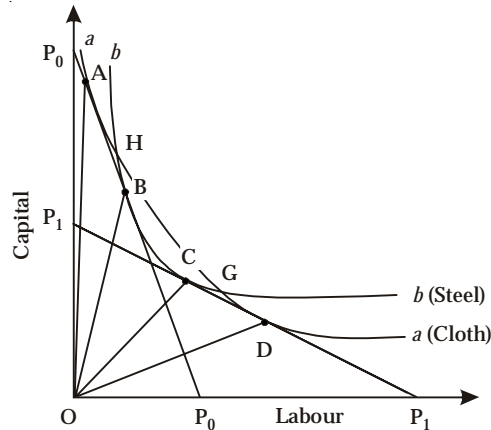


Figure 4.13: Factor intensity reversal once again.

Country A's factor price ratio line is P_0P_0 and country B's similar line is P_1P_1 . The isoquant for cloth is the line aa , and for steel, it is the bb line. The two vectors OA and OB represent K/L ratios in the production of cloth and steel in country A, and the other two vectors OC and OD show the similar ratios for the two goods in country B. It can be easily seen that cloth is capital-intensive in country A but labour intensive in country B, and steel is labour-intensive in country A while it is capital-intensive in country B. The two isoquants cut each other twice—at point H and G.

The assumptions of identical production functions in the two countries and of the non-reversability of factor intensities, are necessary for the validity of the Heckscher-Ohlin prediction. The question, then, is whether factor reversal is common in the real world. Minhas, Leontief, Moroney and others have carried out extensive empirical investigations into this question and their findings are conflicting. Minhas, for example, investigated 24 industries for which comparable data could be obtained for 19 different countries, and found factor reversal in 5 cases. Leontief and Moroney are critical of Minhas's findings, and in fact, Moroney concludes that factor intensity reversal "has much less empirical importance than theoretical interest".

The phenomenon of reversal of factor intensity, if provided widespread, would rob the Heckscher-Ohlin model its predictive significance concerning the structure and direction of commodity trade.

Leontief Paradox and Other Leontief-Type Tests

The first comprehensive and detailed examination of the Heckscher-Ohlin theorem was the one undertaken by Leontief. You will recall that the theory of factor proportions predicted that the capital abundant country exported capital-intensive goods and imported labour-intensive goods, and the labour surplus country did the opposite. It is commonly agreed that the United States is a capital rich and labour scarce country. Therefore, one would expect exports to consist of capital-intensive goods and imports to consist of labour-intensive goods. Leontief made an extensive study of the US structure of trade and the results were startling. Contrary to what the Heckscher-Ohlin theory had predicted,

Notes

Leontief's study showed that the US exports consisted of labour-intensive goods and the imports, (or more precisely import competing products) consisted of capital-intensive goods. In Leontief's own words, "America's participation in division of labour in international trade is based on its specialization in labour intensive rather than capital-intensive lines of production. In other words, the country resorts to foreign trade in order to economize its capital and dispose of its surplus labour, rather than vice versa". Leontief's findings are summarized in the following table :

| | Exports | Imports Replacements |
|---|-----------|-------------------------|
| Capital (US \$ in 1947 prices) | 2,550,780 | 3,091,339 |
| Labour (man years) | 1,80,313 | 1,70,004 |
| Capital Labour ratio (US \$ per man hour) | 13,911 | 18,185 |

From the above table, it is obvious that the US exports had a lower capital-labour ratio than the import replacements. Note carefully that these are import replacements produced in the United States as opposed to the actually imported goods in that country. This distinction is important as we will see later.

Leontief's paradoxical results stimulated similar studies for other countries. Two Japanese economists found that Japan's exports embodied more capital and less labour than Japan's import competing goods. Since Japan is a relatively labour-abundant country, this conclusion is inconsistent with the Heckscher-Ohlin prediction. Similarly, an examination of Canada's trade with the United States revealed that Canada's exports were capital intensive and imports labour intensive. This, again, is not in accordance with the Heckscher-Ohlin theory. Furthermore, an investigation of India's trade with the United States discovered exports to be capital-intensive and imports labour-intensive. Considering that India is an extremely labour surplus country, the result is a paradox. Finally, a study of East Germany's trade showed her exports to be capital intensive and imports labour-intensive. East Germany is not really a capital surplus country, this is also a paradoxical result.

4.3 Kravis and Linder Theory of Trade

Non-availability Approach (Kravis Theory of Trade)

The **non-availability** explains international trade by the fact that each country imports the goods that are not available at home. This unavailability may be due to lack of natural resources (oil, gold, etc. : this is *absolute* unavailability) or to the fact that the goods cannot be produced domestically, or could only be produced at prohibitive costs (for technological or other reasons) : this is *relative* unavailability. On the other hand, each country exports the goods that are available at home.

As regards the presence or absence of natural resources this aspect could easily be fitted into the Heckscher-Ohlin model that stresses the differences in relative endowments. A generalized version of the model can be used by adding a factor *natural resources*.

The originality of this approach lies in its second aspect, that is, in the reasons put forward to explain international differences in relative availability. Essentially there are two reasons : *technical progress* and *product differentiation*.

As regards the first reason, Kravis observes that the stimulus to exports provided by *technological change* is not confined to the reduction costs but also includes the advantages deriving from the possession of completely new products and of the most recent improvements of existing types of goods. In such cases the operation of the demonstration effect of Duesenberry (1949) creates an almost instantaneous demand abroad for the products of the innovating country and thus generates international trade.

As regards *product differentiation*, the idea of Kravis is to extend to international trade the results of the theory of monopolistic competition. Different countries produce similar commodities or, more exactly,

commodities that are not substantially different from the point of view of their intended purpose (clothes, automobiles, watches, cameras, cigarettes, liqueurs, etc.). These commodities, however, due to different industrial designs, past excellence, advertising, real or imaginary secondary characteristics and so on and so forth, are considered different by consumers. This creates, on the one hand, a more or less limited monopolistic power of the single producing countries, and on the other a consumers' demand for foreign commodities that they believe different from similar domestic commodities, the result being to create international trade.

Linder Theory of Trade

The **Linder hypothesis** is an economics conjecture about international trade patterns : The more similar the demand structures of countries, the more they will trade with one another. Further, international trade will still occur between two countries having identical preferences and factor endowments (relying on specialization to create a comparative advantage in the production of differentiated goods between the two nations).

Development of the theory

The hypothesis was proposed by economist Staffan Burenstam Linder in 1961 as a possible resolution to the Leontief paradox, which questioned the empirical validity of the Heckscher-Ohlin theory (H-O). H-O predicts that patterns of international trade will be determined by the relative factor-endowments of different nations. Those with relatively high levels of capital in relation to labor would be expected to produce capital-intensive goods while those with an abundance of labor relative to (immobile) capital would be expected to produce labor intensive goods. H-O and other theories of factor-endowment based trade had dominated the field of international economics until Leontief performed a study empirically rejecting H-O. In fact, Leontief found that the United States (then the most capital abundant nation) exported primarily labor-intensive goods. Linder proposed an alternative theory of trade that was consistent with Leontief's findings. The Linder hypothesis presents a demand based theory of trade in contrast to the usual supply based theories involving factor endowments. Linder hypothesized that nations with similar demands would develop similar industries. These nations would then trade with each other in similar, but differentiated goods.

Empirical tests

Examinations of the Linder hypothesis have observed a "**Linder effect**" consistent with the hypothesis. Econometric tests of the hypothesis usually proxy the demand structure in a country from its per capita income : it is convenient to assume that the closer are the income levels per consumer the closer are the consumer preferences. (That is, the proportionate demand for each good becomes more similar, for example following Engel's law on food and non-food spending.)

Self-Assessment

1. Choose the correct options:

- (i) What is the most important fact about U.S. international trade in the after-war period?
 - (a) Imports exceed exports.
 - (b) Both imports and exports grew significantly as a share of GDP.
 - (c) Exports and imports are a large share of U.S. GDP.
 - (d) Exports exceed imports.
- (ii) Which of the following is NOT true?
 - (a) Small countries depend more on trade than large countries.
 - (b) U.S. imports exceed U.S. exports.
 - (c) Imports cannot exceed exports for an extended period of time.
 - (d) Economists believe that international trade is beneficial for all countries involved in it, in most cases.

Notes

- (iii) The term "gains from trade" describes:
- Producer surplus.
- (a) The fact that when two countries trade, both are better off.
 - (b) Profits made by businessmen involved in international trade.
 - (c) The income of middlemen in a transaction.
 - (d) Consumer surplus.
- (iv) Why do some people argue against free international trade?
- (a) Trade alters the distribution of income between broad groups of people.
 - (b) There is disagreement on whether or not there are gains from trade.
 - (c) Free trade threatens our country's security.
 - (d) The U.S. is a large country and therefore does not gain from international trade.
- (v) Which of the following theories was proposed by David Ricardo?
- (a) Theory of differences in factor endowments.
 - (b) Theory of differences in labor productivity.
 - (c) Theory of random components determining the pattern of trade.
 - (d) Theory of differences in climate and resources.
- (vi) What are most trade policies driven by?
- (a) Conflicts of interest within nations.
 - (b) Conflicts of interest between nations.
 - (c) Disagreements on the prices of major commodities.
 - (d) Disagreements regarding who should produce certain products.

4.4 Summary

- Heckscher (1919) stated that free trade equalizes factor rewards completely. Ohlin (1933), on the other hand argued that full factor-price equalization cannot occur in practice. Ohlin asserted that free trade brings about only a tendency towards factor-price equalization, and only a partial factor-price equalization is possible. The later models by Stolper and Samuelson (1941) and Uzawa (1959) also support partial equalization thesis. The later works of Samuelson (1948, 1949, 1953) and of Lerner (1953) make out a case for complete factor-price equalization.
- In order to demonstrate how the factor-price equalization takes place as a result of international trade, we will use our model of two countries (country A and B), two commodities (goods X and Y) and two factors of production (capital K, and Labour, L). Before trade (*i.e.* in a situation of autarky) we have the following situations : (1) In country A, a labour surplus country, labour is abundant and cheap and capital is scarce and expensive. Therefore, the K/L (or capital labour ratio) is rather low. And once the trade is opened up, labour becomes relatively scarce and the price of labour will go up. Similarly, capital becomes relatively abundant and hence the cost of capital will go down.
- Recent contributions to the pure theory of international trade have relied heavily on the factor proportions analysis developed by the two Swedish economists, Eli Heckscher (1919) and Bertil Ohlin (1933). According to their theory, the immediate cause of international trade is, the differences in the relative prices of commodities between the countries, and these differences in the commodity prices arise on account of the differences in the factor supplies in the two countries.
- In the Heckscher-Ohlin model, the two countries are distinguished by the differences in factor endowments or 'factor abundance' *i.e.* one country is capital abundant (or capital rich) and the

other country is labour abundant (or labour rich). The question is, what is meant by 'factor abundance' ? Two alternative definitions have been given for the term 'factor abundance'.

- The first comprehensive and detailed examination of the Heckscher-Ohlin theorem was the one undertaken by Leontief. You will recall that the theory of factor proportions predicted that the capital abundant country exported capital-intensive goods and imported labour-intensive goods, and the labour surplus country did the opposite.
- The **non-availability** explains international trade by the fact that each country imports the goods that are not available at home. This unavailability may be due to lack of natural resources (oil, gold, etc. : this is *absolute* unavailability) or to the fact that the goods cannot be produced domestically, or could only be produced at prohibitive costs (for technological or other reasons): this is *relative* unavailability. On the other hand, each country exports the goods that are available at home.
- The hypothesis was proposed by economist Staffan Burenstam Linder in 1961 as a possible resolution to the Leontief paradox, which questioned the empirical validity of the Heckscher-Ohlin theory (H-O). H-O predicts that patterns of international trade will be determined by the relative factor-endowments of different nations. Those with relatively high levels of capital in relation to labor would be expected to produce capital-intensive goods while those with an abundance of labor relative to (immobile) capital would be expected to produce labor intensive goods. H-O and other theories of factor-endowment based trade had dominated the field of international economics until Leontief performed a study empirically rejecting H-O. In fact, Leontief found that the United States (then the most capital abundant nation) exported primarily labor-intensive goods. Linder proposed an alternative theory of trade that was consistent with Leontief's findings. The Linder hypothesis presents a demand based theory of trade in contrast to the usual supply based theories involving factor endowments. Linder hypothesized that nations with similar demands would develop similar industries. These nations would then trade with each other in similar, but differentiated goods.

4.5 Key-Words

1. Labour surplus : Surplus labour is a concept used by Karl Marx in his critique of political economy. It means labour performed in excess of the labour necessary to produce the means of livelihood of the worker ("necessary labour"). According to Marxian economics, surplus labour is usually "unpaid labour". Marxian economics regards surplus labour as the ultimate source of capitalist profits.
2. Factor price equalization : Factor price equalization is an economic theory, by Paul A. Samuelson (1948), which states that the prices of identical factors of production, such as the wage rate, or the return to capital, will be equalized across countries as a result of international trade in commodities. The theorem assumes that there are two goods and two factors of production, for example capital and labour. Other key assumptions of the theorem are that each country faces the same commodity prices, because of free trade in commodities, uses the same technology for production, and produces both goods. Crucially these assumptions result in factor prices being equalized across countries without the need for factor mobility, such as migration of labor or capital flows.

4.6 Review Questions

1. Discuss the modern theories of international trade.
2. Explain the theorem of factor price equalization .

4.7 Further Readings



1. James E. Anderson (2008). "International Trade Theory," The New Palgrave Dictionary of Economics, 2nd Edition.
2. Devashish Mitra, 2008. "trade policy, political economy of," The New Palgrave Dictionary of Economics, 2nd Edition.
3. A. Venables (2001), "International Trade: Economic Integration," International Encyclopedia of the Social & Behavioral Sciences, pp. 7843-7848.
4. Maurice Obstfeld (2008). "international finance," The New Palgrave Dictionary of Economics, 2nd Edition.
5. Giancarlo Corsetti (2008). "new open economy macroeconomics," The New Palgrave Dictionary of Economics, 2nd Edition.
6. Reuven Glick (2008). "macroeconomic effects of international trade," The New Palgrave Dictionary of Economics, 2nd Edition. Abstract.
7. As at the JEL classification codes, JEL: F51-F55. Links to article-abstract examples for each subclassification are at JEL Classification Codes GuideJEL:F5 links.

Unit 5 : Role of Dynamic Factors : Tastes, Technology and Factors Endowments in Trade

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Objectives

After reading this Unit students will be able to:

- Understand Dynamic Factors.
- Explain Tastes, Technology and Factors Endowments in Trade.

Introduction

So far, we have assumed that each nation has given and unchanging factor endowments and technology (hence a given production possibilities curve) and given and unchanging tastes (hence a given community indifference map). On this premise, we examined the basis and the gains from trade. However, over time a nation's factor endowments change, and its technology may improve. These changes cause its production possibilities curve to shift. Similarly, a nation's tastes may change and result in a different indifference map. All of these changes affect the terms of trade and the volume of trade. How much these are altered depends on the actual type and degree of the changes occurring.

5.1 Growth in Factor Supplies Through Time

If technology remains the same but the factors of production available to a nation increase, the nation's production possibilities curve shifts outward. This shift is uniform or symmetrical (so that the new production possibilities curve has the same shape as the old one) if labor and capital grow in the same proportion. This is called *balanced growth*. If only the nation's supply of labor increases or if its supply of labor increases proportionately more than its supply of capital, then the nation's production possibilities curve shifts more along the axis measuring the L-intensive commodity than along the axis measuring the K-intensive commodity. The opposite shift occurs if only the nation's supply of capital increases or if its supply of capital increase proportionately more than its supply of labor.

According to the *Rybczynski theorem*, at constant relative commodity prices, the growth of only one factor leads to an absolute expansion in the output of the commodity using the growing factor intensively and to an absolute reduction in the output of the commodity using the nongrowing factor intensively.

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Example 1 : If only the supply of labor increases in the U.K. or if the supply of labor increases proportionately more than the supply of capital and its technology remains the same, then the U.K.'s production possibilities curve or transformation curve might shift outward from TT to T'T' as shown in Figure 5.1. Note that the shift is greater along the horizontal axis, which measures cloth (the L-intensive commodity), than along the vertical axis, which measures wheat (the K-intensive commodity). The shift along the cloth axis in Figure 5.1 is exaggerated for pedagogical reasons. Even if the supply of labor alone increases in the U.K., the U.K. production possibilities curves will nevertheless shift slightly upward since labor is also used in the production of wheat (the K-intensive commodity). However, according to the Rybezynski theorem, the output of cloth would rise while the output of wheat would fall in the U.K. at constant P_C/P_W . For the effect of other types of factor changes on the production possibilities curve of the U.K. and the U.S. and for graphical illustrations and an intuitive proof of the Rybezynski theorem.

5.2 Technical Progress

Technical progress increases the productivity of a nation's factors of production and has the same general effect on the nation's productions possibilities curve as an increase in the supply of its factors. There are at least three types of technical progress :

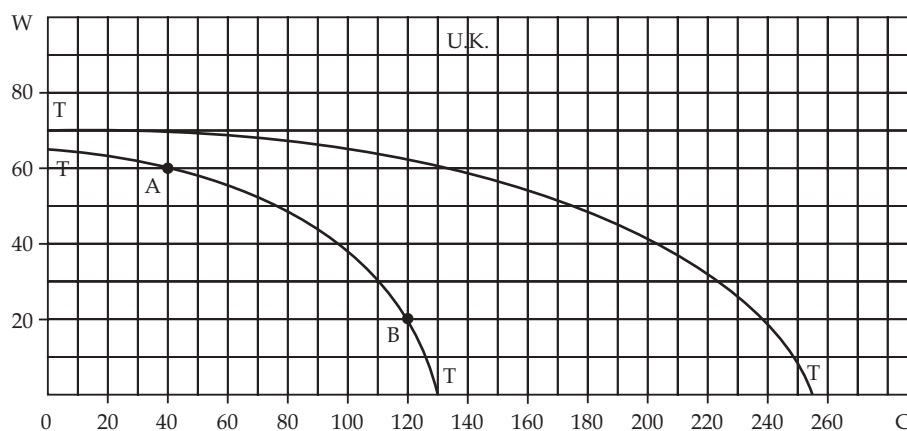


Figure 5.1

- (1) *K-Saving technical progress* throughout the economy increases the productivity of labor proportionately more than that of capital. As a result, L is substituted for K in production at constant w/r , and K/L falls in the production of both commodities. This means that a given output can now be produced with fewer units of L and K but also with lower K/L (higher L/K). K-saving technical progress is equivalent to a proportionately greater increase in the supply of labor than of capital (with unchanged technology). For example, K-saving technical progress in the U.K. equally applicable to cloth and wheat production might cause an outward shift in the U.K. production possibilities curve from TT to T'T' in Figure 5.1. Note that technical progress is defined at constant w/r , and constant returns to scale are assumed in production.
- (2) *L-saving technical progress* is exactly the opposite of K-saving technical progress.
- (3) *Neutral technical progress* increases the productivity of L and K by the same proportion and results in a uniform or symmetrical outward shift in the nation's production possibilities curve.

5.3 Change in Factor Supplies, Technology and Trade

When there is an increase in a nation's supply of factors of production and/or technical progress, the nation's production possibilities curve shifts outward. With unchanged tastes, this causes a change

in the terms of trade, in the volume of trade and in the distribution of the gains from trade between the two nations. The actual result depends on the type and degree of the changes occurring.

Example 2 : In panel A of Figure 5.2, we see that before any change in factor endowments and/or technology the U.K. produces at point B on TT, exports 60C for 60W and consumes at point E on III. This gives point E on the U.K. offer curve in panel B. With unchanged tastes at the same terms of trade of P_B but after TT shifts to $T'T'$, the U.K. would like to produce at point M on $T'T'$, export 150C for 150W and consume at point U on VII. This gives point U on offer curve U.K.* in panel B. If nothing changes in the U.S. (so that the U.S. offer curve in panel B of Figure 5.2, we see that at P_B the U.K. would like to export more of its cloth and import more American wheat than the U.S. is willing to trade at to P_B (see panel B of Figure 5.2). Thus, the terms of trade move against the U.K. from P_B to P_C . At P_C , the U.K. produces at point N on $T'T'$, exports 140C for 70W and consumes at point R on V (see panel A of Figure 5.2). This corresponds to the new equilibrium point R in panel B, where the U.K. and the U.S. offer curves cross. Thus, the U.S. shares in the benefit of the growth taking place in the U.K.

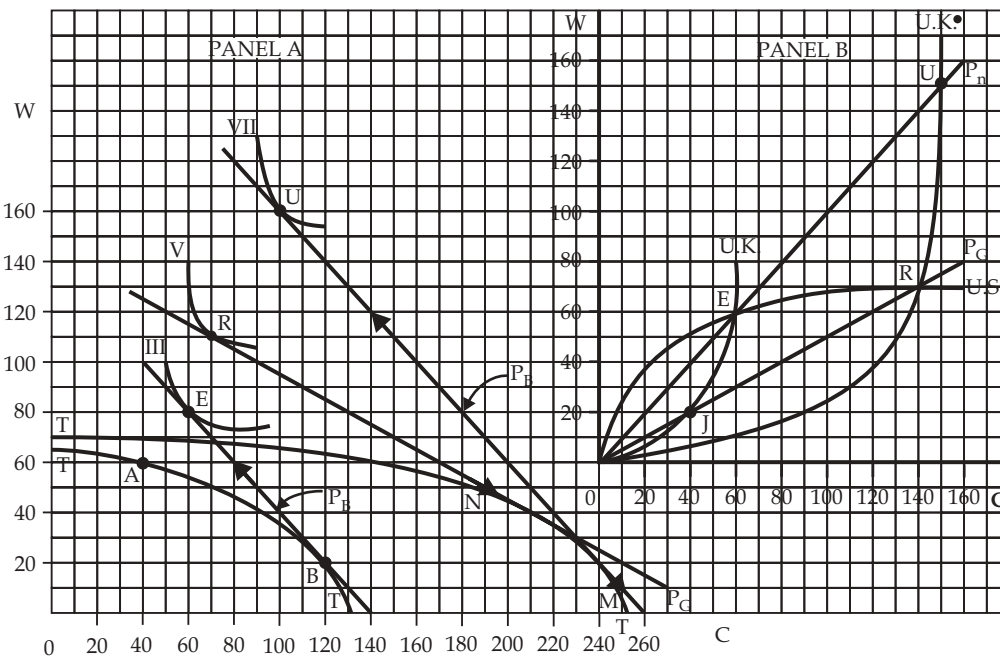


Figure 5.2

The general rule is that if at unchanged terms of trade the nation wants to trade more after growth, its terms of trade partner. If the nation wants to trade less, it not only retains all of the benefits of its growth but is also likely to gain from better terms of trade.

5.4 Change in Tastes and Trade

A nation's *offer curve* also shifts if the nation's supply of factors and technology remain unchanged but its tastes change. Thus, a change in tastes also alters the volume of trade and the nation's terms of trade. More specifically, if a nation's tastes shift away from its *importable commodity* and toward its *exportable commodity* (other things equal), the volume of trade declines and the nation's terms of trade improve. The reverse occurs with an opposite change in the nation's tastes. However, since the nation's indifference map is altered by the change in tastes, we can no longer determine how the nation's welfare is affected.

Example 3 : If the U.K.'s tastes shift away from wheat (its importable commodity) and toward cloth (its exportable commodity—other things being equal), offer curve U.K. in Figure 5.3 shifts up or rotates counterclockwise, say, to offer curve U.K.' This is because the U.K. now wants wheat less

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intensely and is willing to offer less of its cloth than before for each quantity of wheat imported. Thus, with offer curve U.K.' the U.K. exchanges only 20C for 40W at the new equilibrium point J' and the terms of trade of the U.K. improve to $P_G' = 2$ (from $P_B = 1$). This improvement in the terms of trade, by itself, tends to improve the welfare of the U.K. The reduction of specialization in production and in the volume of trade, by itself, tends to reduce the welfare of the U.K. (from the previous trade position before the change in tastes).

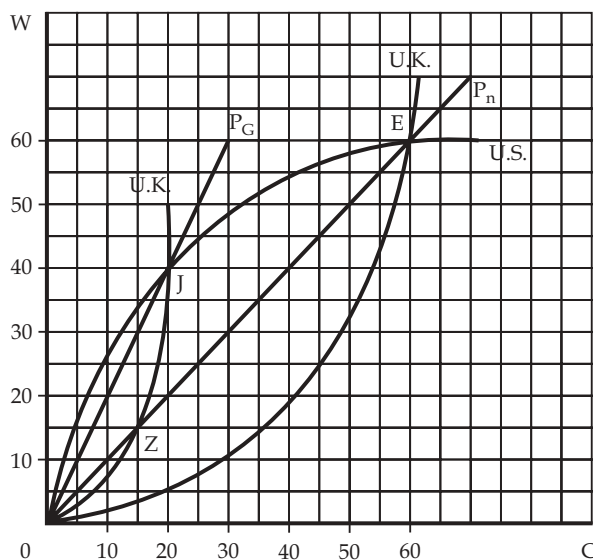


Figure 5.3

Whether on balance the welfare of the U.K. improves or not depends on the relative strength of these two opposing forces. However, we can no longer use commodity indifference curves to answer this question because when tastes change in the U.K., the entire indifference map of the U.K. changes and indifference curves cross.

If, on the other hand, the U.K.'s tastes shift from cloth to wheat, the U.K. offer curve will rotate clockwise and result in a greater volume of trade but reduced terms of trade for the U.K. For the effect of changes in U.S. tastes, separately and at the same time as changes in the U.K.'s tastes occur.

5.5 Dynamic Factors, Trade and Development

With the exception of a handful of nations in North America and in Western Europe and Japan, most nations of the world are classified as less developed countries (LDCs) or, to put it more positively, as developing countries. LDCs presently account for less one-fourth of world trade. Aside from a small group of *newly industrializing economies* (NIEs) (especially South Korea, Singapore, Taiwan and Hong Kong) which are growing very rapidly based on the export of manufactured goods, most of the trade of other LDCs involves the export of raw materials, fuels, minerals and some food products to the industrialized, rich and developed countries (DCs), mostly in exchange for manufactured goods. LDCs complain that because of this trade pattern, because their internal conditions differ widely from those in DCs and because of the way in which the present international monetary system operates, most of the benefit of their own growth accrues to DCs, primarily in the form of secularly improving terms of trade. Thus, trade can no longer serve as an *engine of growth* for today's developing countries as it did for the *regions of recent settlement* (the U.S., Canada, Argentina, Uruguay, Australia, New Zealand, and South Africa) during the nineteenth century.

LDCs advocate a *new international economic order* (NIEO), which involves higher prices for their traditional exports, schemes to stabilize their export proceeds, increased foreign aid, preferential

treatment for their manufactured exports to DCs and reforms of the international monetary system that would take their interests into consideration.

For a discussion of multinational corporations and international labor migration.

5.6 Factors Endowment in Trade

In economics a country's factor endowment is commonly understood as the amount of land, labor, capital, and entrepreneurship that a country possesses and can exploit for manufacturing. Countries with a large endowment of resources tend to be more prosperous than those with a small endowment, all other things being equal. The development of sound institutions to access and equitably distribute these resources, however, is necessary in order for a country to obtain the greatest benefit from its factor endowment. The Heckscher-Ohlin model (H-O model) is a general equilibrium mathematical model of international trade, developed by Eli Heckscher and Bertil Ohlin at the Stockholm School of Economics. The model essentially says that countries will export products that use their abundant and cheap factor(s) of production and import products that use the countries' scarce factor(s).

Nonetheless, the New World economies inherited attractive endowments such as conducive soils, ideal weather conditions, and suitable size and sparse populations that eventually came under the control of institutionalizing European colonists who had a marginal economic interest to exploit and benefit from these new discoveries. Colonists were driven to yield high profits and power by reproducing such economies' vulnerable legal and political framework, which ultimately led them towards the paths of economic developments with various degrees of inequality in human capital, wealth, and political power.

Factor endowments in the New World

A classical example often cited to emphasize the importance of institutions in developing a country's factor endowment is that of North America (the United States and Canada) around the turn of the 19th to 20th century. It is commonly argued that these countries benefited greatly by borrowing many of Britain's institutions and laws. While North America undoubtedly gained from this borrowing, this does not fully explain why the rest of the New World (which also enjoyed a large factor endowment and access to British institutions) did not develop in a similar way. In fact, data shows that connection between the prosperity of the colonizing and the wealth of the colony was weaker than many thought. The future United States and Canada surpassed several British established colonies in the Caribbean, such as Barbados, Jamaica, Belize, and Guyana. In fact, the United States converged on the world economic leader, measured in GDP/capita, the UK. In 1910, the United States overtook the UK and began to diverge from it until about the 1950s. This shows that there must have been another explanation as to why the future United States and Canada developed at a faster rate than other colonies in the region.



Did u know? Cuba and Brazil primarily grew lucrative products such as cotton, coffee, and sugar, which required hand picking and most efficiently picked when picked by hands in unison, whereas the United States was generally a wheat producer.

Kenneth Sokoloff and Stanley Engerman argue in their article "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World" that the difference between North America and the rest of the New World was not just in institutions but in the nature of their respective factor endowments. Countries like Brazil and Cuba had an extremely large yet concentrated factor endowment that tended toward exploitation, a hierarchical social system and exhibited economies of scale. The true advantage of the United States and Canada lay in a more equitable distribution of factors that could not be exploited on an extremely large scale. This distribution led to a more open and opportunistic economy, and eventually to long-term prosperity. For example, because wealth and power were distributed relatively equally in the United States and in Canada, these two countries

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led the rest of the Americas in providing education on a broader scale. Education is an important factor to improve technology in order to boost productivity, which is the reason that US and Canada surpassed the others. Greater access to education allowed for greater investment in human capital, which increases productivity and contributed to the United States and Canada's economic growth. According to Sokoloff and Engerman's article "History Lessons: Institutions, Factors Endowments, and Paths of Development in the New World," not only the United States had relatively equal distribution of wealth, it had relatively homogeneous population, political power and human capital. United States and Canada's relatively equal distribution of wealth, amount of human capital and political power ultimately affected development of institution, extent of franchise, and public education that persist and influence growth of the country. The open franchise brought elimination of wealth and literacy requirement by 1940 in Canada and the United States (literacy requirement was still enforced in US southern regions only). Again, the open franchise was possible because the United States endowed a land suitable for wheat growing thus had a large body of middle class unlike Brazil and Cuba where they exhibited small elites, some overseers and large slave population. United States, then, outgrows other New World countries and eventually diverged from Cuba and Brazil in the late 18th and early 19th centuries.



Notes

The open franchise in the United States and Canada was possible due to the large voting body of middle class and small elites.

Sokoloff and Engerman hypothesize that in societies founded with greater inequality, the elites gained more power to influence the choice of legal and economic institutions. In those countries which are inequal, small elites restrict majority people's rights, such as education and votes, to perpetuate the social structures and continue to make themselves "elites." The U.S. began its economic growth largely through slave labor and trade of the output of that labor. As the elites enacted policy to generate more economic equality, for example by increasing literacy rates, the U.S. GDP per capita pulled ahead of other long-since established countries along with the literacy rates. It is essential to note that factor endowments played a crucial role in shaping the colonies institutions and economic growth; colonies with a richer quality of soil grew cash crops such as sugar, coffee, and cotton, which were most efficiently grown using plantation systems. As such, the demand for not only slave labor but also peonage within these colonies grew. Due to the vast inequality that the society developed due to a small elite population in comparison to the vast laborer population, they were able to maintain the wealth and power within the elite class via establishing a guarded franchise. The inequalities within the cash crop colonies resulted in their economy not being able to expand and grow as fast as the U.S and Canada, due to restrictive policies. Those policies in inequal countries curb the intellectual development of most people who are only required to do simple manual jobs; however, US and Canada encourage their people to take part in education. As a result, US and Canada excel with higher productivities which are supported by advanced technology.

Self-Assessment**1. Choose the correct options:**

- (i) Dynamic factors in trade theory refer to changes in
 - (a) factor endowments, (b) technology,
 - (c) tastes, (d) all of the above.
- (ii) If a nation's technology remains unchanged but its supplies of labor and capital grow in the same proportion, then the nation's production possibilities curve shifts outward
 - (a) evenly along its entire length,
 - (b) more along the axis measuring the L-intensive commodity,
 - (c) more along the axis measuring the K-intensive commodity,
 - (d) any of the above is possible.

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- (iii) If a nation's technology remains unchanged but its supply of labor grows proportionately more than its supply of capital, then the nation's production possibilities curve shifts outward
 - (a) evenly along its entire length,
 - (b) more along the axis measuring the L-intensive commodity,
 - (c) more along the axis measuring the K-intensive commodity,
 - (d) any of the above is possible.
- (iv) If a nation's supply of labor increases but its supply of capital and technology remains unchanged, then the nation's production possibilities curve shifts outward
 - (a) only along the axis measuring the L-intensive commodity,
 - (b) mostly along the axis measuring the L-intensive commodity but also a little along the axis measuring the K-intensive commodity,
 - (c) mostly along the axis measuring the K-intensive commodity,
 - (d) any of the above is possible.
- (v) According to the Rybczynski theorem, the growth of only one factor, at constant relative commodity prices, leads to an absolute expansion in the output of
 - (a) both commodities,
 - (b) the commodity using the growing factor intensively,
 - (c) the commodity using the non growing factor intensively,
 - (d) any of the above.

5.7 Summary

- If technology remains the same but the factors of production available to a nation increase, the nation's production possibilities curve shifts outward. This shift is uniform or symmetrical (so that the new production possibilities curve has the same shape as the old one) if labor and capital grow in the same proportion.
- Technical progress increases the productivity of a nation's factors of production and has the same general effect on the nation's productions possibilities curve as an increase in the supply of its factors.
- With unchanged tastes, this causes a change in the terms of trade, in the volume of trade and in the distribution of the gains from trade between the two nations. The actual result depends on the type and degree of the changes occurring.
- A nation's *offer curve* also shifts if the nation's supply of factors and technology remain unchanged but its tastes change. Thus, a change in tastes also alters the volume of trade and the nation's terms of trade.
- With the exception of a handful of nations in North America and is Western Europe and Japan, most nations of the world are classified as less developed countries (LDCs) or, to put it more positively, as developing countries. LDCs presently account for less one-fourth of world trade.

5.8 Key-Words

- | | |
|-------------------------|---|
| 1. Balanced growth | : Equal rates of factor growth and technical progress in the production of both commodities. |
| 2. Engine of growth | : The driving force behind economic growth. In the nineteenth century, for example, exports were the leading sector that propelled the economies of the regions of recent settlement into rapid growth and development. |
| 3. Exportable commodity | : A commodity (such as aircrafts in the U.S.) that a nation produced for domestic use and for export. |

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4. Importable commodity : A commodity (such as cars in the U.S.) that a nation produces at home and also imports (because of incomplete specialization in production).
5. K-saving technical progress : Technical progress that increases the productivity of labor proportionately more than the productivity of capital and results in an increase in L/K at constant relative factor prices.
6. L-saving technical progress : Technical progress that increases the productivity of capital proportionately more than the productivity of labor and results in an increase in K/L at constant relative factor prices.
7. Neutral technical progress : Technical progress that increases the productivity of labor and capital in the same proportion so that K/L remains the same at constant relative factor prices.

5.9 Review Questions

1. What is the role of dynamic factors? Discuss.
2. What are the changes in factor supply and technology and trade? Give examples.
3. Write a short note on the dynamic factors, trade and development.

Answers: Self-Assessment

1. (i) (d) (ii) (a) (iii) (b) (iv) (b) (v) (b)

5.10 Further Readings



1. Kenneth L. Sokoloff, Stanley L. Engerman. "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World". The Journal of Economic Perspectives Vol 14 No.3 (2000): pp. 217-232
2. Kenneth L. Sokoloff, Stanley L. Engerman. "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World". The Journal of Economic Perspectives Vol 14 No.3 (2000): pp. 217-232
3. Kenneth L. Sokoloff, Stanley L. Engerman. "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World". The Journal of Economic Perspectives Vol 14 No.3 (2000): pp. 217-232
4. Kenneth L. Sokoloff, Stanley L. Engerman. "History Lessons: Institutions, Factor Endowments, and Paths of Development in the New World". The Journal of Economic Perspectives Vol 14 No.3 (2000): pp. 217-232

Unit 6 : Rybczynski Theorem

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Objectives

After reading this Unit students will be able to:

- Define Rybczynski Theorem.
- Explain Rybczynski Theorem.

Introduction

The Rybczynski theorem was developed in 1955 by the Polish-born English economist Tadeusz Rybczynski (1923-1998). The theorem states: At constant relative goods prices, a rise in the endowment of one factor will lead to a more than proportional expansion of the output in the sector which uses that factor intensively, and an absolute decline of the output of the other good.

In the context of the Heckscher-Ohlin model of international trade, open trade between regions means changes in relative factor supplies between regions, that can lead to an adjustment in quantities and types of outputs between those regions, that would return the system toward equality of production input prices like wages across countries (the state of factor price equalization).

It states that at constant prices, an increase in one factor endowment will increase by a greater proportion the output of the good intensive in that factor and will reduce the output of the other good. An increase in the supply of labour expands production possibilities disproportionately in the direction of the production of labour-intensive good (wheat), while an increase in the supply of capital expands them disproportionately in the direction of the production of capital-intensive good (cloth).

Suppose the supply of capital increases by 10% and that of labour is unchanged. If both goods continue to be produced, then factor prices will not change (because of factor-price equalisation theorem) and so the techniques of production will also not change.

As a result of increase in capital,

1. the output of both goods cannot rise by 10% because this would require 10% more labour, and the supply of labour has not changed;
2. output of both goods cannot rise by more than 10%,
3. output of both goods cannot fail to rise by 10% because otherwise the increased capital could not all be utilised;
4. thus the output of one rises by more than 10% and that of the other does not. Because cloth is capital intensive, it must be cloth output that rises more than 10%. The labour supply has not changed, but the cloth industry has expanded and so has increased its use of labour. Therefore, the output of wheat must actually fall.

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By combining this result with the Heckscher-Ohlin theorem, we can see how economic growth affects a nation's trade. If a country's capital increases by 10%, national income will rise by some smaller proportion, because only part of national income comes from the earnings of capital. This increased income will normally be spent on both goods, so that at constant prices, national demand for both goods will rise by less than 10%.



Did u know? Rybczynski Theorem discusses the effect of economic growth on a nation's trade.

According to Rybczynski Theorem, the supply of capital-intensive good (cloth) rises more than 10%, while the supply of labour-intensive good (wheat) falls.

Thus, cloth supply rises relative to demand, and wheat demand rises relative to supply. Now, if the country is capital intensive, then according to the Heckscher-Ohlin theory, it exports cloth and imports wheat, so that the growth of capital causes the country to trade more at each price.

Thus, its offer curve shifts outward. If the country is labour abundant, its offer curve shifts inward. The general conclusion is economic growth that accentuates country's relative factor abundance shifts its offer curve in the same direction; economic growth that moderates the country's relative factor abundance shifts its offer curve in the opposite direction.

6.1 Rybczynski Theorem

The Rybczynski theorem displays how changes in an endowment affects the outputs of the goods when full employment is sustained. The theorem is useful in analyzing the effects of capital investment, immigration and emigration within the context of a Heckscher-Ohlin model. Consider the diagram below, depicting a labour constraint in red and a capital constraint in blue. Suppose production occurs initially on the production possibility frontier (PPF) at point A.

Suppose there is an increase in the labour endowment. This will cause an outward shift in the labour constraint. The PPF and thus production will shift to point B. Production of clothing, the labour intensive good, will rise from C_1 to C_2 . Production of cars, the capital-intensive good, will fall from S_1 to S_2 . If the endowment of capital rose the capital constraint would shift out causing an increase in car production and a decrease in clothing production. Since the labour constraint is steeper than the capital constraint, cars are capital-intensive and clothing is labor-intensive.

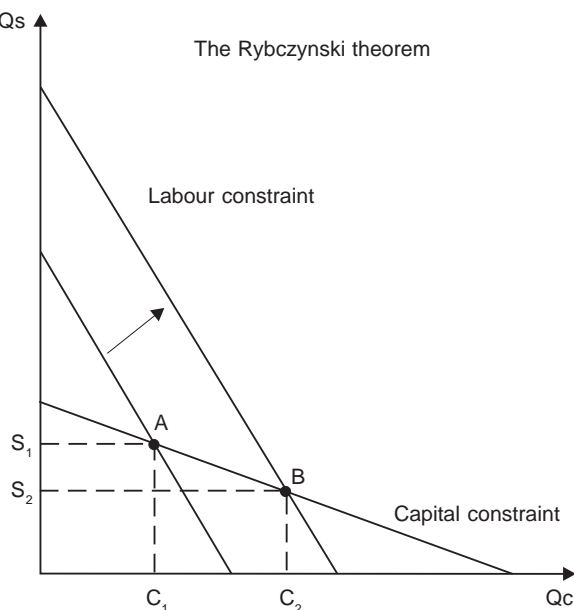


Figure 6.1

In general, an increase in a country's endowment of a factor will cause an increase in output of the good which uses that factor intensively, and a decrease in the output of the other good.

The factor price equalization theorem assumes no change in factor supplies. We will now see what happens to the trading relationships if in one of the two countries there is an increase in the labour force or an increase in the capital stock. This is the essential basis of the so called Rybczynski theorem.

Let us start by assuming that in one of the two countries there is increase in labour supply. The country's original factor endowments are measured by the box ACBD in Diagram 1. The point of origin for cloth (the labour intensive good) is A, and the point of origin for steel (the capital intensive

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good) is at B and F. Cloth is the exported good while steel is the import-competing good. Once, there is increase in the supply of labour, we will have a new box of the size of AEFD, where CE measures the increase in labour force.

Initially, the country produces at point P on its contract curve APB. The factor intensity in the production of cloth, will then be AP, and the factor intensity in the production of steel will be BP. When the country gets an increase in labour supply (equal to CE) with no change in capital stock, the country would move towards a new production point, R on its new contract curve ARF. What are the effects of this movement on factor prices, product prices, production levels, terms of trade, etc ?

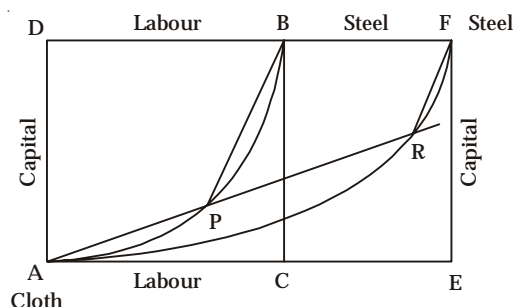


Figure 6.2: Increase in Labour Supply : Rybczynski case.

You will notice, first of all, that there is no change in factor prices. The factor intensities in the production of the two goods remain unchanged. Originally, the factor intensity in cloth production was PA and now it is RA; in the production of steel, it was BP earlier, and now it is FR (FR is parallel to BP). This means that factor price ratio has remained unchanged. (This would prevent factor price equalization from taking place if the labour abundant country experiences labour force increase and the capital abundant country experiences increase in its capital stock). Since factor prices are kept constant, the commodity prices also would remain constant. In moving from point P to R, there is no change in either factor prices or product prices, and the only change is in the volumes of the two goods produced.

The change in the volume of output produced in moving from point P to R can be measured by the distance from point A to point P and to point R (in the case of cloth) and from point B to P and from point F to R (in the case of steel). The distance FR is shorter than the distance BP, which means that less of steel is being produced at R than at P. In the same way, the distance AR is more than the distance AP, which must, therefore, mean that more of cloth is being produced at R as compared to P. All this would, then, mean that if the supply of one of the two factors is increased while the other is kept constant, the production of the good intensive in the increasing factor will increase in absolute amounts, whereas the production of the other good would decrease absolutely. The commodity and factor prices remain constant.



Notes

The Rybczynski theorem has several implications to welfare, terms of trade, commodity and factor prices, etc. But its implications to factor-price equalization theorem is rather clear cut, i.e, if the supplies of the abundant factor of production expands rapidly, it could keep the factor price ratio in the country constant, preventing factor-price equalization among countries from taking place.

In this case, what has happened, is as follows. The amount of labour has increased, and all the new labour has gone into the labour-intensive industry (*viz.* cloth). From the capital intensive industry (*viz.* steel) not only capital but also some labour has moved out into the labour intensive industry. This is reflected in the fact that the production of cloth has expanded, while that of steel has contracted. If the labour force continues to expand indefinitely, the country would soon become completely specialized in the production of cloth.

Notes

To continue the argument it is necessary to use another geometric illustration. In Figure 6.2, the production-possibility curve TT is derived from the box $ACBD$ in Figure 6.3. The international terms of trade are given by the line P_0P_0 , which is tangent to TT at point S . What about the new production-possibility curve? What shape will it have? All we can say, is, that a price line such as P_1P_1 , which is parallel to P_0P_0 , must be tangent to the new production-possibility curve below the line SN . This is, because, as we have just seen, at constant prices more cloth (exportables) will be produced and less steel (importables) will be produced. So, if we derive the new production-possibility curve FF from the box $AEFD$ in Figure 6.2, it will appear as it does in Figure 6.2.

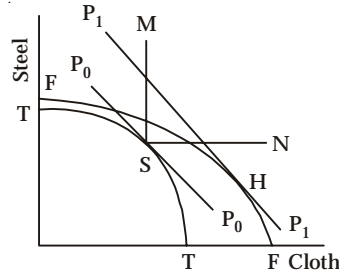


Figure 6.3: Effects of Factor Growth on Trade Equilibrium.

Point H cannot be an equilibrium point unless steel is an inferior good. The increase in labour force and a consequent shift in the production-possibility curve would imply an increase in the national income. Barring inferior goods, the demand for both goods must increase. Therefore, the new equilibrium point will have to be somewhere on the new production-possibility curve FF between where it is cut by the lines SN and SM . The slope of this segment on the FF curve is not as steep as the slope of the TT line at point S . That implies that the relative price of steel will be higher in the new equilibrium situation, which, in other words, means that an increase in labour supplied will lead to a deterioration in the country's terms of trade.

The factor growth, therefore, would lead to a deterioration in the terms of trade for that good which uses the increasing factor intensively. In this case, labour supply increased, and the country's export good was the labour-intensive good, cloth. The cloth price would decrease turning the terms of trade against the country. All this is based on the premise that neither of the two goods is an inferior good.

Self-Assessment

1. Choose the correct option:

- (i) The Rybczynski theorem was developed in by the Polish-born English economist Tadeusz Rybczynski
 - (a) 1955
 - (b) 1950
 - (c) 1970
 - (d) 1960
- (ii) This econometric find was the result of Professor attempt to test the Heckscher-Ohlin theory empirically.
 - (a) Tadeusz Rybczynski
 - (b) Wassily W. Leontief's
 - (c) Heckscher-Ohlin
 - (d) None of these
- (iii) In, Leontief found that the U.S. (the most capital-abundant country in the world) exported labor-intensive commodities and imported capital-intensive commodities, in contradiction with Heckscher-Ohlin theory ("H-O theory").
 - (a) 1954
 - (b) 1950
 - (c) 1980
 - (d) None of these
- (iv) A 1999 survey of the econometric literature by concluded that the paradox persists, but some studies in non-US trade were instead consistent with the H-O theory.
 - (a) Tadeusz Rybczynski
 - (b) Richard Freeman
 - (c) Elhanan Helpman
 - (d) None of these

6.2 Summary

Notes

- According to the Rybczynski (1955) theorem, applied to the standard two-country, two-good, two-factor model, an increase in one factor will result in an absolute rise in the output of the commodity which is relatively intensive in the increased factor, and to an absolute fall in the output of the other commodity.
- The generalization of the theorem by Jones (1965) states that “if factor endowments expand at different rates, the commodity intensive in the use of the fastest growing factor expands at a greater rate than either factor, and the other commodity grows (if at all) at a slower rate than either factor.”
- The application of Jones' version of the theorem to a model with three goods, one of which is non-traded, two factors and indecomposable inter-industry flows is studied here.
- The introduction of inter-industry flows makes necessary a distinction between net and gross Rybczynski output effects and also between direct and total factor intensities of commodities. It is found that a sufficient condition for the generalized Rybczynski theorem, defined in terms of total factor intensities, to hold for both net and gross outputs, net output changes being proportionately greater than gross changes, is that the net output change of the non-traded good is bounded by the factor changes.
- This result is compared with earlier findings and the meaning of the sufficient condition is discussed in terms of basic demand parameters.

6.3 Key-Words

1. New international economic order (NIEO) : The demands made developing nations as a group at the United Nations for the removal of alleged injustices in the operation of the present international economic system and for the implementation of specific measures to facilitate the development of these nations.
2. Newly industrializing economies (NIEs) : Economies such as South Korea, Singapore, Taiwan and Hong Kong which are growing very rapidly based mostly on export growth.
3. Regions of recent settlement : The mostly empty and resource-rich lands, such as the U.S., Canada, Argentina, Uruguay, Australia, New Zealand and South Africa, that Europeans settle during the nineteenth century.
4. Rybczynski theorem : A theorem postulating that at constant relative commodity prices the growth of only one factor leads to an absolute expansion in the output of the commodity using the growing factor intensively and to an absolute reduction in the output of the commodity using the non growing factor intensively.

6.4 Review Questions

1. What do you mean by the Rybczynski Theorem? Discuss.
2. Illustrate the diagram with the effects of factor growth on trade equilibrium.

Notes

Answers: Self-Assessment

1. (i) (a) (ii) (b) (iii) (a) (iv) (c)

6.5 Further Readings



1. Altonji, Joseph, and David Card. 1991. "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives." In John Abowd and Richard Freeman, eds, *Immigration, Trade, and the Labor Market*, (Chicago, IL: University of Chicago Press), 201-234.
2. Bernard, Andrew B. and J. Bradford Jensen. 1999. "Understanding Increasing and Decreasing Wage Inequality." In Robert C. Feenstra, ed., *The Impact of International Trade on Wages*, Chicago: University of Chicago Press.
3. Bernstein, Jeffrey R. and David E. Weinstein. 1998. "Do Endowments Predict the Location of Production? Evidence from National and International Data." NBER Working Paper No. 6815.
4. Blackorby, Charles, William Schworm, and Anthony Venables. 1993. "Necessary and Sufficient Conditions for Factor Price-Equalization." *Review of Economic Studies* 60: 413-434.

Unit 7 : Causes of Emergence and Measurement of Intra-Industry Trade and Its Impact on Developing Economics

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Objectives

After reading this Unit students will be able to:

- Discuss the Causes of Emergence and Measurement of Intra-Industry Trade.
- Explain the Balassa and Grubel-Lloyd Indices.

Introduction

Having earlier noted that in the European Common Market "much of the increased trade in manufactures occurred within rather than between commodity groups" . An explanation of this phenomenon in terms of product differentiation in consumer goods, machinery, transport equipment, and intermediate products and introduced statistical indicators to measure the extent of intra-industry specialization.

Subsequently, additional evidence was provided on the extent of intra-industry specialization in manufactured goods among the EEC countries. For purposes of empirical measurement, an industry has been defined to include commodities that have high substitution elasticities in production. In practice, limitations of data availability have led to the use of a 91 industry classification scheme consisting of 3-digit and 4-digit items in the U.N. Standard International Trade Classification (SITC), and combinations thereof.

The use of a technological definition of an industry is not open to the strictures Lipsey (1976) addressed to subsequent work by Grubel and Lloyd (1975), who employed 3-digit SITC categories in the calculations regardless of the technological characteristics of the product within each category.

And although a further disaggregation of the data would be desirable in particular instances, Hesse (1974) and Willmore (1974), respectively, have shown that a high degree of intra-industry specialization is apparent in the European Common Market and the Central American Common Market, even if a very dis-aggregated commodity classification scheme is employed. At any rate, recognizing the limitations of the use of the statistical indicators to measure the extent of intra-industry specialization

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in a single country at a particular point of time, the author has used these indicators to make comparisons over time and among countries.

The purpose of this section is to discuss the methodological aspects of the measurement of intra-industry trade, rather than a documentary study of intra-industry trade applied to a country, or group of countries. Most of the references in this section, as well as the section below on the determinants of intra-industry trade, contain documentation of intra-industry trade levels for the countries under study that are too numerous to mention here in this review.

But before we can discuss any measurement of intra-industry trade, we must decide what we are to measure. This is not a philosophical question, but a practical one as the history of empirical intra-industry trade has been mired by allegations of being a "statistical phenomenon" (Lipsey, 1976). The charge of being a statistical phenomenon is not an idle one. At the 3-digit SITC level of aggregation, canoes and 200,000 tonne tankers are in the same "ships and boats" industry; at the same level of aggregation, table model radios and airport flight control equipment are in the "telecommunications apparatus" industry (Lipsey, 1976). Also, Finger (1975) notes that trade overlap is not inconsistent with classical trade theory if empirical product groups do not correspond with the appropriate factor proportions groupings. Industry/product categories have become sufficiently disaggregated to disregard these early claims of intra-industry trade being a statistical phenomenon. The Harmonized Tariff Schedule (HTS) has a 10-digit classification system with over 20 000 entries that not only separate canoes from 200 000 tonne tankers, but also from any other boat not designed to be used with motors or sails—a classification that is even distinct from a rowboat. However, aggregation should not be forgotten since it may still be an issue for other reasons. Nevertheless, we will now move on to the various measures.



Did u know? Intra-industry trade is defined as the simultaneous export and import of goods in the same industry.

7.1 Models of Intra-Industry Trade: Basic Theoretical Underpinnings

So far as the historical source is concerned, IIT was identified while trying to find what culminated into the formation of European Economic Community (EEC). Early research by Dreze (1961) and Balassa (1965) found evidence of increasing intra-industry specialization in the decade following the customs union formation. This led to the work of Grubel and Lloyd (1975) where detailed documentary evidence of IIT at the 2 and 3 digit levels of the SITC for all the major industrialized countries have been provided. Although by the mid-1970s some theorizing has been done [for example, Gray (1973), Grubel (1970), Pelzman (1978)], there was no formal theoretical model. In addition, by the mid-1970s there were few serious attempts at econometric explanation [Pagoulatos and Sorensen (1975), McAleese (1979)-to mention a few]. In particular, theoretical work has become fashionable following some of the theoretical formulations by Dixit and Stiglitz (1977) and Lancaster (1979).

Demand and its Importance in the Determination of Trade Structure: Linder Hypothesis

As mentioned, according to the Linder hypothesis, while the composition of trade in primary products may be explained by the factor proportions theory, the pattern of trade in manufactured goods is mainly determined by the demand characteristics of a country. Specifically, Linder argues that the structure of relative prices of industrial goods in each country is determined by the "representative demand", and that income per capita is the most important single factor influencing the representative demand. Linder claims that "the production functions of goods demanded at home are relatively more advantageous" and he justifies this assertion on the reasons based on the unfamiliarity of the producers with foreign markets as compared with the domestic market and on the existence of scale effects.

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Many empirical studies have been done to analyse the empirical links between the structure of industrial exports and the level of income per capita. Hufbauer tested the relationship between income per capita and the composition of trade. The story of Linder is a controversial alternative to factor proportions theory. As regards the bilateral trade intensity, Linnemann has made explicit reference to distance variable which is absent in Linder. Johnson suggested that the positive relationship between trade intensity and "Linder variable" (international similarity in per capita GNP) could be the result of the reality of geographical proximity among countries with similar wealth levels. Thus, Linder variable is a surrogate for distance and distance between partners is deterrent to trade. Following Bergstrand (1985) & Linneman (1986), Hanink has developed a gravity model [Bergstrand (1985)] and analyzed Linder's theme as a "spatial interaction model" i.e., model based on mutual attraction between places.

So far as the empirical testing of Linder corollary relating to the commodity composition of trade in manufactured goods is concerned, the statements is "Potential exports and imports are--when they are manufactured--the same products. An actual import product today is a potential export product today and may be an actual export product tomorrow." This means that there would be a similarity between a country's export vector of manufactures and its import vector of manufactures--irrespective of its level of development. This export-import similarity is measured by either, Finger and Kreinin (1979) Export-Import Similarity (EIS) index or, by Allen's Cosine measure (COS).



Notes

In Linder's version, exports of manufactures are an outgrowth of a home production satisfying the home consumption demand

A study by Linnemann and Beers (1988) on the commodity composition of exports of a country and of imports of another country shows that Linder thesis of a potentially relatively stronger trade in manufactures between countries of similar level of per capita income is rejected. On the other hand, the potential intensity of trade would generally seem to increase with increasing per capita income of the trading partners. Gray notes the applicability of Linder's proposition to the explanation of IIT and relates it to the theory of differentiated markets in international trade. Gray calls these goods as 'Linder Goods' and these goods are the primary component of the large volume of trade between countries.

Overlapping demands also arise in the context of product variety i.e., the number of goods in a country's basket of imports/exports. Overlapping demands among rich countries can cover both income elastic and income inelastic goods.

Increasing Returns and Scale Economies

Increasing returns to scale provide an additional factor motivating trade where both countries benefit from trade even when they are identical with respect to tastes and technology. This is supply side explanation of models. Such trade cannot be carried on in conditions of perfect competition and equilibrium will require that the firms involved have some degree of market power. The role of scale economies is of particular interest because of their importance to theoretical models. Most genuine IIT consists of two way trade in differentiated products, since with the exception of strategic trade in oligopoly market situations, homogenous goods IIT is believed to represent border or seasonal trade.

The first departure from the standard competitive model is the Marshallian approach in which increasing returns are assumed to be external to the firm and internal to the industry, allowing perfect competition to remain. According to Krugman, the literature did not seem to offer the interaction of increasing returns and comparative advantage as explanations of trade. Ethier cast his approach to the problem in terms of the two-way trade in intermediate goods, providing a formal basis for relating IIT to external economies linked to the world market size. Subsequently in Ethier, he produced a model in which external and internal economies of scale interact to generate IIT starting from the allocation of resources to production and trade. According to a simplistic version of the scale economy thesis, the large nation because of an assured home market will specialize in goods produced with

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increasing returns to industry size. A small nation might occasionally develop a scale economy industry; rely on export sales to justify production. So difference in the sizes of economy could have provided the inducement for trade.

Increasing return internal to the firm in industry gives a different situation incompatible with competitive model. For increasing returns external to the firm, costs fall with the size of the industry not with the size of firms comprising it and hence marginal cost pricing would not lead to losses. External economies are not incompatible with the perfectly competitive structure as it will merely lead to distortions leading to net welfare loss from trade and can be corrected by appropriate government intervention (i.e. taxes and subsidies). It is only when the firms are alone enjoying economies of scale (internal to the firms) that the firms realize the advantage of being alone in the market. It is this hostility to the new entrants and/or a tendency towards merger that threatens the validity of traditional trade theories. Empirical evidence, however, shows that most firms experience internal economies of scale as production expands. This prepares the ground for discussing the third approach to modeling.

Imperfect Competition

The 1970s were marked by substantial progress in the theoretical modeling of imperfect competition. Several trade theorists developed models of trade incorporating non-perfectly competitive market structure. The literature divides itself into two distinct categories in their approach: one strand models the role of scale economies as a cause of trade and keeps the issue of market structure out of the way by assuming Chamberlinian monopolistic competition in market structure. The second strand takes imperfect competition as the base and investigates IRS as a cause of imperfect competition. This falls under the purview of 'oligopoly and trade'.



Did u know? Krugman has been awarded Nobel Prize in Economics in 2008 for his major contribution in this field.

Monopolistic Competition Models

Intuitively it would seem that scale economies would increase the payoff to intra-industry specialization and two way trade in any type of commodity and therefore would be positively associated with the degree of importance of scale effects in an industry. However, as discussed by Greenaway and Milner, even though these models all rely on some type of scale effects to generate IIT, it is not necessarily the case that intensity of such effects determine its share of an industry's trade. For example, Helpman and Krugman (1985), in an alternative to the Chamberlinian framework, modeled IIT by monopolistically, competitive producers of single varieties who are constrained to average cost pricing by freedom of entry. In the 1970s, however, two approaches to this problem were developed. The first, identified with the work of Dixit and Stiglitz (1977) and Spence (1976), made the assumption that each consumer has a taste for many different varieties of a product. As there are alternative approaches, Lancaster (1979), for example, assumed a primary demand for 'attributes' of varieties, with consumers differing in their preferred mix of attributes. Product differentiation here takes the form of offering a variety having attributes that differ from those of existing varieties. Since all these models assume different types of differentiation, a brief taxonomy of terms for product differentiation is given below:

- (i) Horizontal differentiation: It refers to differentiation by attributes or characteristic and every consumer has his most preferred "package" of characteristics. Within a given "group" (e.g., in automobiles category as compared to apparels) all products will share certain core characteristics the combination of which determines the products' specifications. It is often called locational differentiation (Hotelling 1919, Lancaster (1980), Helpman (1981)). Pseudo differentiation occurs when the core characteristics of all products in the group are identical, but differentiated by brand image.

- (ii) Vertical differentiation: It is broadly consistent with quality differences i.e. availability of alternative quality grades unlike the earlier case of availability of alternative specifications of a product in a given quality grade.

Notes

Oligopolistic Markets and IIT

Because a variety of assumptions can be made regarding conjectural variations, equilibrium outcomes can be generated in a wide range of contexts. Scale economies have also been associated with IIT models in their role as a source of barriers to entry. Strategic interaction among oligopolists whose market share is related to internal economies may result in two way trade as in Brander (1981). Further, with regard to 'Rome market effects' of Helpman and Krugman which leads the monopolies to specialise geographically, Rauch (1989) suggests that a monopolist could internalize Ethier's international external effects by organising as a multinational and engaging in intrafirm IIT. This possibility means that unless the externalities are tied to non-tradable inputs, IIT would not necessary be reduced in the presence of increasing returns. Furthermore, Rauch points out those internal economies linked to a specific location by non-traded inputs or transport costs effects must be strong enough to offset the diseconomies of metropolitan agglomeration before they have the effect of reducing IIT. Because these diseconomies rise steeply with city size he argues that it is difficult to envision large countries as having a comparative advantage capable of affecting the international location of manufacturing simply because they are large. Everything depends on assumption regarding basic structural features of the market concerned and the conjectural variation.

Some important insights into international trade have been gained by adopting the Cournot (1838) assumption that imperfectly competitive firms take each others output as given. Papers by Brander (1981), Brander and Krugman (1983), Neven and Phlips (1984) and Krugman (1984) have made this assumption. The Cournot approach has led to the possibility of trade arising purely because imperfectly competitive firms have an incentive to try to gain incremental sales by "reciprocal dumping" in each others home markets.

The model of Brander (1981) envisages an industry consisting of two firms, each in a different country and each acting as a monopolist in autarky. They take the other firm's deliveries to each market as given. There would be an incentive for each firm to sell a little bit in the others home market as long as the price there exceeds marginal cost and it will continue until, with symmetric firms, each firm has a 50% share of each market. This theory of "reciprocal dumping" is related in important ways to the traditional Industrial Organization literature on basing point pricing and cross hauling. What the new models make clear, however, is that despite the waste involved in transporting the same good in two directions, trade can still be beneficial. The major importance of the Cournot approach, however, lies in its versatility and flexibility of discussion of trade policy. As opposed to this model, different models have been developed where products are vertically differentiated and entry considerations are important. Unlike the Falvey Kurzkowski model, product quality is exogenously given. These models are based fundamentally on the work of Gabszewicz, Shaked, Sulton and Thisse (GSST) in a natural oligopoly framework.

The mathematical complexity of the model is beyond the scope of this review. The above theoretical models have empirical basis and much of the intra-industry trade literature is based upon empirical studies relating to the degree of intra industry trade and the associated country and industry features explaining it. The empirical analyses of IIT requires some discussion regarding problems of measurement and the methodological issues to which we turn in the next section. Assessing the importance of these theories in explaining the pattern of trade is essentially an empirical matter.

7.2 Intra-Industry Trade: Recent Empirical Evidences Using A Global Database

We measure the extent of IIT in manufactures for a set of countries and study the country characteristics and interrelationships between the degree of IIT and some country features. The analysis to be carried out will help explaining the source of generation of IIT in developing countries and the relevance of analysis of IIT, both theoretical and empirically, in the context of developing countries. We use Global

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Trade Analysis Project's (GTAP) Version 6 Database (Dimaranan 2006) to compute extent of such trade. GTAP is a Computable General Equilibrium (CGE) trade model with large database suitable for policy analysis (Hertel ed. 1997). (26) This model divides the world economy into several countries and composite regions. The model and database are widely used for analyzing the effects of issues such as trade liberalization and technological changes. The original Version 6 database consists of 57 commodities and 87 regions expressed in U.S. billion dollars. Typically, the database comprises bilateral trade flows between all the regions. Each set of transactions is recorded at both market prices and agent's prices. GTAP model belongs to the class of computable general equilibrium models (CGE) based on the Australian ORANI model (Dixon et. al. 1982).

We retain the region and sector's identifier number so as to keep it convenient to refer to the GSC classification by mentioning the numbers corresponding to the large database. Typically, there are two concordances of GSC2, one with the Commodity Product Classification (CPC) and the other one with the ISIC Revision 3 (UN). (27) In our empirical analysis, from Table 2 it is seen that the share of IIT in total trade is not a negligible percentage for the developing countries at more advanced level of development. Compared to the developed economies, the share is, no doubt, small. But the interesting picture that comes out from our analysis is that the share is substantial as they diversify their production structure to hi-tech goods especially, with the advent of information and communications technology. Manufactures exports were the developing countries most dynamic part of export sectors in the 1970s and 1980s and also in recent decade. With the rapid growth and economic development of the East Asian newly industrializing countries (NICs), Latin American NICs and the South and South East Asian Countries, there has been a significant increase in intra-industry trade (IIT) in the developing economies. A substantial proportion of these countries IIT has been with their major trading partners e.g., the United States, Japan, the EEC, the U.K., i.e. the developed world. The figures for intra-trade suggest that any presumption that LDCs are more likely to have a comparative disadvantage in advanced manufactures relative to industrial countries and advantage relative to developing countries less developed than them is too simple. Some commodities are too widely produced (e.g., clothing, steel, machinery and transport equipment, etc.) to offer scope for such intra-trade. Countries' whole trading patterns are developing although there has been little change in the composition of manufactured goods' imports. The Asian countries are no longer net importers of manufactures, and in Latin America the ratio of exports to imports is approaching a half. It is clear that the diversification into manufactures, and then into different sectors, has gone well beyond early stages of industrialization or exporting for the major exporters. Table 3 shows commodity-wise patterns of comparative advantage as revealed through their direction and composition of global trade. The 'stylized' picture that comes out from the empirical analysis is that the considerable two way trade of developing economies with the developed economies and also with the world can be explained by the level of development, market size, share of manufacturing value added in GDP and/or share of manufacturing exports in total exports and some trade orientation variable measuring, as a proxy, trade policy intervention. These are all country features. The specific products which have the highest levels of IIT are organic chemicals, glass, leather, iron and steel forms, textile yarn, fabrics, in addition to various types of machinery and equipment including vehicles. Goods with high IIT are more 'sophisticated' and these are, mostly, capital intensive and/or investment goods. Changes in the specialization of certain manufactures towards intra-industry production and exchange is a reflection of the growing similarities between the developing economies and the developed counterpart in terms of relative factor endowments, consumers' preference structure, level of development. It may be reasonably expected that the LDCs will continue to evolve up the ladder of comparative advantage and specialize through international division of labour.

As the developing economies diversify their export through increased IIT, the DCs will have opportunities to export to these countries the products of the industries e.g., textiles, leather, etc. This, however, depends on the LDCs ability to identify and adopt new technologies for achieving such competitiveness. Here, the "vertical specialization" and fragmentation of production processes become important. This means that quality differentiation rather than attribute differentiation is the

appropriate product dimension. Consequently, IIT indices may be expected to be lower and more stable where the goods are vertically differentiated rather than horizontally. Furthermore, it can be inferred from our findings that as industrialization led growth and development in the developing economies proceeds, pushing these countries along the development path towards the matured industrial country stage, intra-industry specialization in production and trade in certain manufacturing commodities will play an increasingly important role in manufacturing production and trade.

7.3 Measurement of Intra-Industry Trade

Empirical work on the measurement of intra-industry trade began in the mid-1960s with Balassa (1966) and the most well known work on intra-industry trade by Grubel and Lloyd (1975). These works were then followed by, what we know as today as, the theory of intra-industry trade. These models of intra-industry trade developed on the heels of the work on monopolistic competition and product differentiation by Dixit and Stiglitz (1977). They began with the work of Krugman (1979, 1980, 1981), Lancaster (1980), and Helpman (1981) who developed models of horizontally differentiated intra-industry trade with monopolistic competition – these models, and their derivatives, are summarized in Helpman and Krugman (1985). Models of horizontally differentiated intra-industry trade under oligopolistic competition, of the form of Eaton and Kierzkowski (1984), followed shortly after. Vertically differentiated intra-industry trade with perfect competition has been modelled by Caves (1981) using a version of the classical Heckscher-Ohlin international trade model as well as oligopolistic models of vertically differentiated intra-industry trade, such as Shaked and Sutton (1984).

Empirical investigations of these models are omnipresent. They cover issues dealing with the measurement of intra-industry trade and the estimation of its determinants based on the models named above. Generally focussing on determinants most of the models have in common, these studies investigate intra-industry trade between and within both developed and developing countries. This paper brings together the various measures and econometric studies on intra-industry trade into one place. A complete review of the literature is well beyond the scope of this paper, but it highlights the general trends and common features in measurement and econometric studies, as well as the advancements that have taken place over the development of this literature.

Measuring Intra-industry Trade

The purpose of this section is to discuss the methodological aspects of the measurement of intra-industry trade, rather than a documentary study of intra-industry trade applied to a country, or group of countries. Most of the references in this section, as well as the section below on the determinants of intra-industry trade, contain documentation of intra-industry trade levels for the countries under study that are too numerous to mention here in this review.

Usually, intra-industry trade is defined as the simultaneous export and import of goods in the same industry. But before we can discuss any measurement of intra-industry trade, we must decide what we are to measure. This is not a philosophical question, but a practical one as the history of empirical intra-industry trade has been mired by allegations of being a “statistical phenomenon” (Lipsey, 1976). The charge of being a statistical phenomenon is not an idle one. At the 3-digit SITC level of aggregation, canoes and 200,000 tonne tankers are in the same “ships and boats” industry; at the same level of aggregation, table model radios and airport flight control equipment are in the “telecommunications apparatus” industry (Lipsey, 1976). Also, Finger (1975) notes that trade overlap is not inconsistent with classical trade theory if empirical product groups do not correspond with the appropriate factor proportions groupings.

Industry/product categories have become sufficiently disaggregated to disregard these early claims of intra-industry trade being a statistical phenomenon. The Harmonized Tariff Schedule (HTS) has a 10-digit classification system with over 20,000 entries that not only separate canoes from 200,000 tonne tankers, but also from any other boat not designed to be used with motors or sails – a classification that is even distinct from a rowboat. However, aggregation should not be forgotten since it may still be an issue for other reasons. Nevertheless, we will now move on to the various measures.

7.4 The Balassa and Grubel-Lloyd Indices

Balassa (1966) proposed the first index of intra-industry trade that measured the degree of trade overlap—simultaneous import and export—of goods within an industry :

$$B_j = \frac{|X_i - M_i|}{(X_i + M_i)} \quad \dots (1)$$

where $i \equiv$ commodity within industry j . This index, the ratio of net trade to gross trade, ranging from 0 to 1, with 0 representing “perfect” trade overlap, and therefore pure intra-industry trade, while 1 represents pure inter-industry trade. In order to calculate the degree of intra-industry trade for all industries (country level), Balassa took an unweighted average for each B_j :

$$B = \frac{1}{n} \sum B_j \quad \dots (2)$$

where $n \equiv$ number of industries. This can be generalized to be a weighted index :

$$B = \sum_j w_j B_j \quad \dots (3)$$

where $w_j \equiv$ industry j 's share of total trade.

Though the essence of this index has remained intact to this day, an index that measured intra-industry trade that gave pure intra-industry trade a value of zero was not intuitively appealing. Grubel and Lloyd (1975) proposed an alternative index :

$$GL = \frac{(X_i + M_i) - |X_i - M_i|}{(X_i + M_i)} = 1 - \frac{|X_i - M_i|}{(X_i + M_i)} = 1 - B_j \quad \dots (4)$$

where $i \equiv$ commodity within industry j , that assigned pure intra-industry trade a value of 1 and pure inter-industry trade a value of 0. As with the Balassa Index, the Grubel-Lloyd Index has been calculated as an (un) weighted average to measure the degree of intra-industry trade at the country level.

This class of index has been criticized for suffering from categorical/sub-group aggregation issues. These issues have two basic forms that bias the index towards 1 : the grouping of two products in the same industry that should not be classified together, the canoe and tanker example above; and trade imbalance. The grouping of two, or more, categories together that should not be in the same industry is best explained using the following table :

Table 1 : Simple aggregation bias in the GL Index

| Category | X_i | M_i | $ X_i - M_i $ | $(X_i + M_i)$ | GL Index |
|-------------------|-------|-------|---------------|---------------|----------|
| 3-Digit | 150 | 160 | 10 | 310 | 0.968 |
| Sub-Group 5-Digit | 0 | 160 | 160 | 160 | 0.00 |
| Sub-Group 5-Digit | 150 | 0 | 150 | 150 | 0.00 |

Suppose we have one 3-digit “industry” that contains 2 sub-groups and each sub-group is independently engaged in (pure) inter-industry trade. We can see that the Grubel-Lloyd Index is zero for each of these sub-groups, so if we took an average, weighted or unweighted, of the two, the Grubel-Lloyd Index would still be zero. If, however, the import and export values are summed to form the 3-digit category, it appears that we have almost pure intra-industry trade with a Grubel-Lloyd Index of 0.968. Though this is an extreme example, it should be clear that aggregating across improper categories can lead to a misrepresentation of the degree of intra-industry trade.

The simple aggregation bias example above is a particular case of trade imbalance bias—trade imbalance, however, can occur when sub-groups are appropriately aggregated. This problem arises

when the net trade-gross trade ratio is characterized by opposite trade imbalances for the sub-groups (Greenaway and Milner, 1983). Suppose there are two commodities/sub-groups within an industry:

$$\frac{|X_i - M_i|}{(X_i + M_i)} = \frac{|(X_{1i} - M_{1i}) + (X_{2i} - M_{2i})|}{(X_{1i} + X_{2i} + M_{1i} + M_{2i})} \quad \dots (5)$$

If the country in question is a net exporter (importer) in both sub-groups the weighting effect of the ratio is maintained, but if the country is a net exporter of one good and a net importer of the other good, the weighting effect is lost and the Grubel-Lloyd Index will take on a different value (Greenaway and Milner, 1983). This can be seen in the following table :

Table 2 : Trade imbalance bias in the GL Index

| Category | X_i | M_i | $ X_i - M_i $ | $(X_i + M_i)$ | GL Index |
|-------------------|-------|-------|---------------|---------------|----------|
| 3-Digit | 180 | 310 | 130 | 490 | 0.735 |
| Sub-Group 5-Digit | 80 | 160 | 80 | 240 | 0.667 |
| Sub-Group 5-Digit | 100 | 150 | 50 | 250 | 0.800 |
| 3-Digit | 230 | 260 | 30 | 490 | 0.939 |
| Sub-Group 5-Digit | 80 | 160 | 80 | 240 | 0.667 |
| Sub-Group 5-Digit | 150 | 100 | 50 | 250 | 0.800 |

In the first category the country is a net importer in both sub-groups, but in the second category the country is a net importer in one good and a net exporter in the other. Since the Grubel-Lloyd Index does not recognize the direction of trade, the sub-group Grubel-Lloyd Indices are the same in both cases, but when the sub-groups are aggregated the Grubel-Lloyd Index for the second category is biased upward.

The index can be corrected by replacing the original net trade-gross trade ratio with the following net trade-gross trade ratio :

$$\frac{\sum_{i=1}^n |X_{ij} - M_{ij}|}{(X_j + M_j)} \quad \dots (6)$$

where $i \equiv$ sub-group i within industry j . This adjustment removes the trade imbalance bias that results from countries being a net exporter in one sub-group of an industry and a net importer in another sub-group as well as the simple aggregation bias. We are left with the following index of intra-industry trade :

$$GL'_j = 1 - \frac{\sum_{i=1}^n |X_{ij} - M_{ij}|}{(X_j + M_j)} \quad \dots (7)$$

Generally speaking, if a country is a net exporter/importer in both goods, $GL = GL'$, but if a country is a net exporter in one good and a net importer in another, $GL > GL'$: $0 \leq GL' \leq GL \leq 1$ (Greenaway and Milner, 1983). There was another adjustment suggested to the Grubel-Lloyd Index by Aquino (1978) in response to an imbalance in *overall* trade. Greenaway and Milner (1981) subsequently showed that the suggested adjustment is more likely to induce, rather than remove, distortions in the Grubel-Lloyd Index. Not surprisingly, this Aquino adjustment has fallen out of favour.

7.5 Measuring Marginal Intra-Industry Trade

Despite the ability to calculate the Grubel-Lloyd Index over time, it does not have desirable dynamic properties. An increase or decrease in the Grubel-Lloyd Index is not necessarily associated with corresponding increases or decreases in intra-industry trade. Caves (1981) and Hamilton and Kniest (1991) have noted that an equal/proportional increase in the exports and imports within an industry

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from trade liberalization would raise the quantity of intra-industry trade, but it's proportion measured by the Grubel-Lloyd Index would remain the same. Suppose that trade liberalization doubled both imports and exports within a particular industry.

Table 3 : The dynamics of the GL Index

| Category | X_i | M_i | $ X_i - M_i $ | $(X_i + M_i)$ | GL Index |
|---------------------|-------|-------|---------------|---------------|----------|
| Pre-Liberalization | 200 | 100 | 100 | 300 | 0.667 |
| Pre-Trade Barrier | 200 | 100 | 100 | 300 | 0.667 |
| Post-Liberalization | 400 | 200 | 200 | 600 | 0.667 |
| Post-Trade Barrier | 100 | 100 | 0 | 200 | 1.00 |

We can see from Table 3 that the net trade-gross trade ratio is multiplied and divided by the same scalar, two in this case, the value of the net trade-gross trade ratio, and hence the Grubel-Lloyd Index, remains the same :

$$\frac{|2X_i - 2M_i|}{(2X_i + 2M_i)} = \frac{2|X_i - M_i|}{2(X_i + M_i)} = \frac{|X_i - M_i|}{(X_i + M_i)} \quad \dots (8)$$

Also in Table 3, we see the possible effect of some trade barrier imposed. The exports of one country are decreased, and thus the quantity of intra-industry trade has fallen, yet this decrease in exports has put the two countries in perfect trade balance in this industry. The Grubel-Lloyd Index has actually risen from 0.667 to 1.00 even though intra-industry trade has decreased. This does not mean the Grubel-Lloyd Index is of no use when comparing trade over time, we must simply be cautious when interpreting change in the index.

Changes in intra-industry trade over time have significant effects on adjustment costs resulting from that change in trade – adjustment costs that have no doubt been taking place in recent years from the implementation of the FTA, NAFTA, and EU. In the first work on empirical intra-industry trade, Balassa (1966) noted that due to the presence of intra-industry trade, difficulties of adjustment have been overstated. Of particular importance to Canadian trade, if the FTA and/or the NAFTA brought about adjustment within the motor vehicle industry – manufacturing a different type of motor vehicle or switching to parts manufacturing – these adjustment costs would be much less than adjustment from the motor vehicle industry to another industry, such as textiles. Manufacturing a different type of motor vehicle, whether it be different on the quality or variety spectrum, would most likely entail similar production methods and employment practices such that any adjustment process would not be difficult. In fact, this is an adjustment that occurs quite regularly with the introduction of new automobile models. Even a switch from automotive manufacturing to automotive parts manufacturing would benefit from previous industry knowledge; automobile and automotive parts manufacturers would necessarily have knowledge of each others' markets since one supplies the other with an intermediate good(s). Production methods, as well as employment practices, would undergo much more change than the previous example, but not as much as a switch to the textile industry.

Due to the concern of measuring adjustment costs due to trade liberalization and because of the dynamic problem of the Grubel-Lloyd Index, a variant of the Grubel-Lloyd Index, called the Marginal Intra-Industry Trade Index, was developed by Hamilton and Kniest (1991) :

$$MIIT = \begin{cases} \frac{X_t - X_{t-n}}{M_t - M_{t-n}} & \text{for } M_t - M_{t-n} > X_t - X_{t-n} > 0 \\ \frac{M_t - M_{t-n}}{X_t - X_{t-n}} & \text{for } X_t - X_{t-n} > M_t - M_{t-n} > 0 \\ \text{undefined} & \text{for } X_t < X_{t-n} \text{ or } M_t < M_{t-n} \end{cases} \quad \dots (9)$$

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where n is the number of years between the two years of measurement. This index of marginal intra-industry trade captures the proportion of the increase in exports (imports) within an industry with a corresponding increase in imports (exports) within that same industry. Since this index will only measure new trade flows, by definition, it captures the relative importance of intra-industry trade generated by trade liberalization. As with the Grubel-Lloyd Index, the Marginal Intra-Industry Trade Index takes on values between 0 and 1, with 1 representing new trade that is pure intra-industry trade (Hamilton and Kniest, 1991).

We now have a representation of the dynamic nature of inter- and intra-industry trade for the purpose of evaluating adjustment costs over some time period. However, as with most first attempts, this index has complications. Greenaway, Hine, Milner and Elliott (1994) state that this index of marginal intra-industry trade that is undefined whenever ΔX or ΔM is negative ignores precisely what it is trying to measure. Using United Kingdom trade data, they find that no less than 32 percent of all 5-digit SITC categories are undefined by this index. Also, this measure indicates the importance of new intra-industry trade without any reference to the amount of new trade—a high index value may not be meaningful. There is also a problem of inflation causing an upward bias in this measure if the same quantity of exports (imports) now commands an inflated price. This will give the appearance of increased intra-industry trade that was really a nominal phenomenon; using real-valued trade data easily corrects for this bias (Greenaway *et al.*, 1994).

Greenaway *et al.* (1994) propose the following index, which differs from the Hamilton and Kniest (1991) index by representing intra-industry trade in values, rather than as a ratio :

$$MIIT' = [(X + M) - |X - M|]_t - [(X + M) - |X - M|]_{t-n} \quad \dots (10)$$

$$= \Delta [(X + M) - |X - M|]. \quad \dots (11)$$

As a consequence, this ratio is always defined and can easily be related to levels of new trade in order to assess the significance of this new trade. However, this measure suffers from the same trade imbalance bias discussed with the Grubel-Lloyd Index above, which was precisely the criticism held by Hamilton and Kniest (1991).

Brühlhart (1994) suggests an index of marginal intra-industry trade that is always defined and does not suffer from the trade imbalance bias of previous indices :

$$MIIT'' = 1 - \frac{|(X_t - X_{t-n}) - (M_t - M_{t-n})|}{|X_t - X_{t-n}| + |M_t - M_{t-n}|} = 1 - \frac{|\Delta X - \Delta M|}{|\Delta X| + |\Delta M|}. \quad \dots (12)$$

As with previous indices, this index takes on values between 0 and 1, with 1 representing pure marginal intra-industry trade. Like the Hamilton and Kniest Index, this index of marginal intra-industry trade captures the nature of the change in export and import flows, which is the desired property of such an index. In order to ensure this index is of economic significance, one only needs to take reference to the absolute (real) value of new trade.

Brühlhart (1994) has also suggested an index of marginal intra-industry trade to capture industry performance; this index will allow for an investigation into the distribution of trade-induced gains (losses) between countries :

$$MIIT''' = \frac{\Delta X - \Delta M}{|\Delta X| + |\Delta M|}. \quad \dots (13)$$

Unlike previous Grubel-Lloyd type indices, this index of marginal intra-industry trade ranges between -1 and 1. The closer $MIIT'''$ is to zero, the higher is marginal intra-industry trade, whereas values

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close to -1 and 1 represent higher marginal *inter*-industry trade : if $\Delta X > \Delta M$, $MIIIT''' > 0$, and if $\Delta X < \Delta M$, $MIIIT''' < 0$. So, values of $MIIIT''' > 0$ indicate that exports are expanding at the expense of imports (strong domestic industry performance), conversely for $MIIIT''' < 0$ (weak domestic industry performance). Unlike previous Grubel-Lloyd type indices, this index cannot have a (un) weighted average taken to assess marginal intra-industry trade at the country level; an average of -1 and 1 is zero, which grossly misrepresents the type of trade.

One final issue with the measurement of marginal intra-industry trade comes from Thom and McDowell (1999). They claim that the Brülhart Index cannot distinguish between inter-industry trade and vertical intra-industry trade, and therefore, overestimates the costs of adjustment due to changes in trade composition—though the costs of adjustment for vertical intra-industry trade (quality differentiated goods) may be higher than horizontal intra-industry trade (variety differentiated goods), both will have lower adjustment costs than inter-industry trade. As we shall see in the next section, this is not entirely true. The Brülhart Index captures all intra-industry trade for which there is a simultaneous export and import of the same commodity classification; this includes horizontal intra-industry trade and vertical intra-industry trade that is defined by quality differentiation, but does not include vertical intra-industry trade along the lines of vertical integration within an industry—two, or more, distinct commodities traded between two countries, which are usually deemed as being within the same industry. The latter of the definitions of vertical intra-industry trade is usually not considered in empirical studies, and for good reason; grouping distinct commodity classifications together, although intuitively appealing at times since different sizes of automobiles have distinct commodity classifications, returns us to the difficulties of categorical aggregation discussed above. Commodity categories have become sufficiently disaggregated to avoid categorical aggregation issues and meaningfully disentangle vertical and horizontal product differentiation, but we must be careful not to take two steps backward from this one step forward.

7.6 Disentangling Horizontal and Vertical Intra-Industry Trade

Although the measurement of intra-industry trade as a whole has come a long way since Balassa (1966) first proposed a measure, we have seen above, for reasons of measuring adjustment costs, that there are reasons to disentangle horizontal and vertical intra-industry trade from each other. Also, as we will see below, vertical and horizontal intra-industry trade have different expectations with respect to parameter values of the determinants of intra-industry trade. We will now discuss how these two trade types have been disentangled in the literature.

Unfortunately, the Grubel-Lloyd Index, and its variants, gives us no explicit way to differentiate between one-way and two-way trade; the index tells us the degree of trade overlap, but doesn't tell us when we are dealing with two-way trade. If we are to take the definition of two-way trade literally, the simultaneous import and export of the same commodity classification, any commodity that has a Grubel-Lloyd Index greater than zero will be deemed two-way trade. More generally, we can consider trade within a commodity classification two-way trade when the value of the minority value flow of trade represented at least γ percent of the majority value flow of trade, which is the following condition :

$$\text{Two-way trade if : } \frac{\text{Min}(X_{p,t}, M_{p,t})}{\text{Max}(X_{p,t}, M_{p,t})} > \gamma\% \quad \dots (14)$$

where $p \equiv$ product and $t \equiv$ year. Below this level, the minority value flow would not be considered significant since it does not represent a structural feature of trade. This criterion can then be used to calculate an index of two-way trade :

$$\text{Share of Two-Way Trade} = \frac{\sum_i (X_i + M_i)}{\sum_j (X_j + M_j)} \quad \dots (15)$$

where $i \equiv$ two-way traded goods and $j \equiv$ all traded goods.

Abd-el-Rahman (1991) pioneered this method in disentangling intra-industry trade. The index of two-way trade, however, had been proposed by Fontagné, and Freudenberg (1997). Although the Grubel-Lloyd Index and the Two-Way Trade Index measure two different phenomenon – the Grubel-Lloyd Index measures the degree of trade overlap, while the two-way trade index considers all trade over the γ percent threshold to be two-way trade – when they are compared, they are quite similar. Fontagné, and Freudenberg (1997), using regression analysis and a quadratic specification, found the fit between the two indices to be impressive: $R^2 = 0.97$. Given the longevity of the Grubel-Lloyd Index, this goodness of fit has provided some comfort to researchers.

Thus far, we have only differentiated between one- and two-way trade. We now must move to disentangle horizontal and vertical intra-industry trade. Within a given commodity classification that experiences two-way trade, products may or may not differ in their quality. In models of intra-industry trade, horizontal product differentiation is characterized by products with similar quality levels, with different attributes, while vertical differentiation is characterized by products with significantly different quality levels. Following Stiglitz (1987), empirical work that has disentangled intra-industry trade has assumed that prices represent quality, even under imperfect information. From this assumption, differences in the unit values (UV) or prices of these commodities can be assumed to represent these quality differences. Unit values have been defined for each commodity classification as the value of trade divided by the quantity traded, giving an average price of the goods traded in this category. Clearly, the more disaggregated the classification system, the better this method will be in capturing the price of the commodities. A classification system such as the 10-digit Harmonized Tariff Schedule with 20,000 commodity classifications will capture this well. The categories are so specific that different commodities will have different quantity measures: liters, kilograms, number, etc. while the SITC classification system is more general and uses tonnes as its quantity variable for all commodity categories.

Regardless of the level of disaggregation, horizontal product differentiation is defined as having the ratio of the export unit value to the import unit value falling within a range:

$$1 - \alpha \leq \frac{UV^X}{UV^M} \leq 1 + \alpha \quad \dots (16)$$

where α is the threshold for the range. Vertical product differentiation is then defined as:

$$\frac{UV^X}{UV^M} > 1 + \alpha \text{ or } \frac{UV^X}{UV^M} < 1 - \alpha \quad \dots (17)$$

Fontagné, and Freudenberg (1997) have suggested a modified criteria that preserves the relative nature of the threshold:

$$\frac{1}{1 + \alpha} \leq \frac{UV^X}{UV^M} \leq 1 + \alpha \quad \dots (18)$$

for horizontal product differentiation, and:

$$\frac{UV^X}{UV^M} > 1 + \alpha \text{ or } \frac{UV^X}{UV^M} < \frac{1}{1 + \alpha} \quad \dots (19)$$

for vertical product differentiation. For small values of α there is little difference between the two methods, but as α gets large the relative “distance” from the lower bound to unity becomes increasingly larger than the distance from unity to the upper bound.

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We can see from Table 4 that as α increases the unit value ratio range becomes increasingly skewed to the lower bound in accounting for horizontal product differentiation. The modification suggested, and used, by Fontagné, and Freudenberg (1997) corrects for this difficulty.

Table 4 : Differences in product quality measures

| α | Relative Distance to Unity from Lower Bound $1 - \alpha$ | Relative Distance to Unity from Lower Bound $1/(1 + \alpha)$ |
|----------|---|---|
| 5 % | 5% | 5% |
| 10% | 11% | 10% |
| 15% | 18% | 15% |
| 20% | 25% | 20% |
| 25% | 33% | 25% |

The two thresholds used for the distinction between vertical and horizontal product differentiation in the literature are 15 and 25 percent. The 15 percent threshold is generally used, and considered appropriate, when price differences reflect only differences in quality – the assumption of perfect information, such that a consumer will not purchase a similar, or lower, quality good at a higher price. However, in case of imperfect information the 15 percent threshold may be too narrow and the 25 percent threshold may be more appropriate. Alternatively, both thresholds could be used in order to evaluate the robustness of results (Greenaway, Hine, and Milner, 1995). Thus far, results of work on intra-industry trade have not been sensitive to the choice of the threshold.

The preceding criteria for trade overlap and product similarity lead to three different categories of trade :

1. two-way trade in similar, horizontally differentiated products (significant overlap and low unit value differences)
2. two-way trade in vertically differentiated products (significant overlap and high unit value differences)
3. one-way trade (no significant overlap).

With quality ranges of goods defined as up-market, middle-market, and down-market goods :

- up-market : unit value ratio $> 1 + \alpha$
- middle-market : $1/(1 + \alpha) \leq$ unit value ratio $\leq 1 + \alpha$
- down-market : unit value $< 1/(1 + \alpha)$,

one can investigate which price/quality segments of the market countries or industries lie, or move towards over time.

The share of two-way trade in horizontally differentiated products in industry j , the ratio of the value of two-way trade for which UV^X/UV^M falls within the horizontally differentiated products range,

$1/(1 + \alpha) \leq \frac{UV^X}{UV^M} \leq 1 + \alpha$, to the total value of trade in that industry is calculated :

$$TWHD_j = \frac{\sum_{p_i \in j} \sum_{HD} (X_{p,t} + M_{p,t})}{\sum_{p_i \in j} \sum_Z (X_{p,t} + M_{p,t})} \quad \dots (20)$$

where $TWHD_j \equiv$ two-way horizontally differentiated trade share, $HD \equiv$ horizontally differentiated trade, $Z \equiv$ all trade types, $p_i \in j \equiv$ product i in industry j , and $t \equiv$ year. A similar formula is used in the calculation of the share of two-way trade in vertically differentiated products in industry j ; that is, when

$$\frac{UV^X}{UV^M} < 1/(1+\alpha) \text{ or } \frac{UV^X}{UV^M} > 1+\alpha :$$

$$TWVD_j = \frac{\sum_{p_i \in j} \sum_{VD} (X_{p,t} + M_{p,t})}{\sum_{p_i \in j} \sum_Z (X_{p,t} + M_{p,t})} \quad \dots (21)$$

where $TWVD_j \equiv$ two-way horizontally differentiated trade share, $VD \equiv$ horizontally differentiated trade, $Z \equiv$ all trade types, $p_i \in j \equiv$ product i in industry j , and $t \equiv$ year. And of course, the share of one-way trade in industry j would be calculated as follows :

$$OWT_j = 1 - TWHD_j - TWVD_j \quad \dots (22)$$

where $OWT_j \equiv$ one-way trade share.

Subsequent empirical work on the determinants of intra-industry trade by Greenaway, Hine, and Milner (1994, 1995) and Greenaway, Milner, and Elliott (1999) have used the initial threshold measure of product quality initiated by Abd-el-Rahman (1991) and a trade overlap value of $\gamma = 0$ percent, while Fontagné, Freudenberg, and Pèridy (1997) have used the alternative threshold measure of product quality provided by Fontagné, and Freudenberg (1997) and a trade overlap value of $\gamma = 10$ percent.

The Determinants of Intra-Industry Trade

In the previous section we discussed a number of ways that intra-industry trade has been measured. Though there may be some difficulties and issues with the measurement of intra-industry trade there has been a general consensus in the literature of what to measure. The same cannot be said for the determinants of intra-industry trade.

Since the first models of intra-industry trade, a great diversity of models in both horizontal and vertical intra-industry trade as well as alternative market structures such as monopolistic competition and oligopoly have come to pass. Some of these models have differing determinants/predictions while others have determinants that would prove difficult to discriminate between. Despite these difficulties, a multitude of empirical studies have sought to identify characteristics that are common to all, or most, of these models. These characteristics, of course, are subject to measurement error and are in large part proxy variables, which makes some of the measurement issues above seem insignificant. These characteristics have been broadly classified as country-specific and industry specific determinants (Greenaway and Milner, 1989).

7.7 Intra-Industry Trade Theory and Developing Economics

As we have seen from our previous discussions that the first generation models in this new literature have been shown to be applicable for explaining trade between countries at similar levels of per capita income or development viz., North-North trade. Krugman argues that this exclusion of "poor nations" is due to "a bias in the research agenda". The trade analysis of LDCs requires taking account of increasing returns and imperfect competition. The "new theory" is essentially based on "arbitrary" specialization to realize economies of scale. The specific characteristics of LDCs require a different emphasis for adopting the theories to the developing world. Certain features of Southern economies are of relevance that bears on appropriate choice of models of trade. One pertinent point to note is that most of the theories are applicable to manufactures trade not the 'climatic' primary products. It is widely recognized that the simple H-O. theory is capable of explaining N-S trade in terms of the differences in factor endowment and mutual gains from this exchange are assured. The preference similarity theory, for example, is primarily applicable to N-N trade with tastes being determined by income level. The South having substantially lower income levels, on average, and having different tastes from the North would not participate in this form of trade. Marked income inequalities among the South economies imply that having skewed income distribution, the rich in these economies have incomes and hence, tastes similar to those in the North. South could gain from preference-similarity

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trade with other Southern economies only if the South innovates and produces its own products. In these types of models, Southern focus is left ignored because the South has a comparative disadvantage in the production of these goods.

Where the South concentrates on production of differentiated consumer goods, it does it on a small scale and potential economies of scale remain partially, if not fully, unexploited. Stewart (1984) discusses this case in detail by pointing out that a lack of natural comparative advantage in their production at the primary stages when there are diseconomies of scale and no inefficiency (i.e., under employment of resources, etc.) compel most of them to produce under heavy protections. As Stewart recognizes, there is a trade off between efficiency and variety, unless trade can perform the role of permitting specialization, scale economies and variety to be exploited. As far as intra-industry specialization and exchange is concerned, it is solely a matter of more efficient deployment of resources within the South, and it should raise productivity and not direct resources. This is a form of trade creation. If countries in the South specialized on particular differentiated variety of final products and then exchanged them each country should be able to use its resources more efficiently, raising output without resource diversions. As the South moves into 'manufactured exports, as we will see in the subsequent chapters, the need for analyzing this kind of specialization and gains from exchange is looming large. The most general conclusion, following Stewart, is that while the theories explain N-N trade, S-S trade offer a potential way for the South to gain from the trade in products for countries with identical demand structure, in differentiated products and in intermediate goods. All of the models discussed in Section II postulate an equivalence between scale economy and IIT in the sense that for individual product varieties within an industry (e.g., car) having a common technology there are scale economies (internal to the firm), giving rise to IIT or 'non-comparative' advantage trade. This equivalence does not necessarily hold for the LDC because for small open economies the realization of it requires inter-industry trade. It is due to the fact that scale economies apply to large product lines and also a single scale efficient plant often exceeds the domestic market size of many LDCs. To take advantage, many industrial complexes will concentrate in a single country giving rise to IIT and specialization.

Krugman (1988) describes a situation (hypothetical) where scale economies in infrastructure (required for imports into agriculture) give the overall primary good a definite 'non-comparative advantage' in trade pattern. In LDCs exports of manufacturers, there are elements of increasing returns as well as comparative advantage; hence, the phenomenon of IRS may be applicable to LDCs, even if primarily in the role of providing necessary infrastructure to get them to world or, in non-traded intermediate inputs to standard primary productive activity. The economic integration efforts in the developing world were always motivated more by the 'swapping of production for import substituting industries' enjoying scale economies'. Scale economies have mattered much in LDC trade policy. Since the market structure matters in international exchanges, it is necessary to analyze the imperfections in market characteristics in such 'regulation-prone' setting for LDCs. Firms and government interact in arriving at regulations and controls which have a spillover effect on a region's trade pattern. Small number of private agents and relatively heavy intrusion of government regulation make the traditional assumption of large, competitive markets, *prima facie*, less relevant for LDCs than the developed countries (DCs). For many LDCs these gains do not accrue to the state. Brander and Spence (1981) type strategic export subsidies may seem a little far fetched for LDCs as their bargaining ability and credibility of threats is small. Even if the small country has some major share of the product, the government will face difficulty of becoming a credible first mover. Another interesting point to note is the fact that Krugman's 1984 paper 'Import protection as export promotion': international competition in the presence of oligopoly and economies of scale' is a refurbished version of the 'Infant Industry Argument' for protecting an industry in a small LDCs. Krugman's model is based on IRS--internal to the firm so that firms in protected domestic market will move down their marginal cost curves and market shares will go up. The argument was originally pioneered by Hamilton (1791), List (1841), Mill (1909) and Bastable (1921). This is the model that countries like China, India, Japan and South Korea adopted and achieved international competitiveness.

Self-Assessment

Notes

1. Choose the correct option

- (i) Suppose Canada exports cars and imports furniture. This is an example of
 - (a) Grubel-Lloyd trade.
 - (b) Unbalanced trade, since cars are more valuable than furniture.
 - (c) Intra industry trade.
 - (d) Inter industry trade.
- (ii) Which of the following are true statements about intra-industry trade?
 - (a) Low values on the Grubel-Lloyd index are associated with high levels of intra industry trade.
 - (b) The majority of U.S. and European trade is intra industry trade.
 - (c) Intra industry trade is especially common in agricultural sectors.
 - (d) All of the above.
- (iii) If an industry is characterized by External Economies of Scale
 - (a) Firm costs decline as the industry grows in size.
 - (b) Firm costs decline as firms increase in size.
 - (c) The market is likely to be served by an oligopoly of firms.
 - (d) Monopolistic competition will follow.
- (iv) Consider a monopolistic market, such as the market for laptop computers. If a producer leaves the market,
 - (a) Laptop prices will fall.
 - (b) Laptop prices will rise and output per firm will increase.
 - (c) Laptop prices will rise and output per firm will fall.
 - (d) Output per firm will decrease as firms exploit market power.
- (v) Intra-industry trade benefits customers
 - (a) In both countries, since prices fall and the number of varieties available to consumers increases.
 - (b) In the larger country, since prices fall. Consumers in the smaller country are hurt by rising prices.
 - (c) In both countries, since the effects of rising prices is offset by the benefit of an increased choice of varieties.
 - (d) In the smaller country, since prices fall. Consumers in the larger country are hurt by rising prices.

7.8 Summary

- Over the last decade or so there has been a reappraisal by some economists of the ability of traditional trade theory to explain relatively recent developments in the pattern of world trade. The 'new' views have largely focused on the economies of the DCs, newly industrialized countries (NICs), East Asian NICs and developing countries at higher stages of development.
- These countries are rapidly dismantling their highly protectionist trade regimes often initiated by major multilateral lending agencies, including the IMF and the World Bank. There has been constant effort to determine from a theoretical standpoint whether or not there is anything in this "new" theory for small developing economies.
- The new theories pay particular attention to two features of imperfect world markets, viz: (1) economies of scale; (2) external economies. These motives include the advantage of large scale production, technological advancement and innovation.

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- As well, economic theorizing has improved, such that there is now a better understanding of industrial structure and the nature of oligopolistic markets. Herein lies the relevance of 'new view' for small open economies.
- Firms in these countries produce, nowadays, new high technology products of services for the export market, manufactures on a large scale by using high technology processes. This has got a strong empirical basis. Considerable dynamic benefits of the learning-by-doing type or 'technological invitation' variety may be expected to evolve through different ex ante policies and also through the adoption of development strategies.
- Although empirical work incorporating more recent theoretical approaches is not lagging behind, the present analysis shows an evolution of new trade patterns for the developing economies participating and integrating themselves with the world.

7.9 Key-Words

1. Intra-industry trade : Intra-industry trade refers to the exchange of similar products belonging to the same industry. The term is usually applied to international trade, where the same types of goods or services are both imported and exported.
2. International trade : It is the exchange of capital, goods, and services across international borders or territories. In most countries, such trade represents a significant share of gross domestic product (GDP). While international trade has been present throughout much of history, social, and political importance has been on the rise in recent centuries.

7.10. Review Questions

1. What are the causes of emergence of intra industry trade?
2. Discuss the measurement of intra industry trade and its impact on developing economics.

Answers: Self-Assessment

1. (i) (d) (ii) (b) (iii) (a) (iv) (c) (v) (a)

7.11 Further Readings



1. Altonji, Joseph, and David Card. 1991. "The Effects of Immigration on the Labor Market Outcomes of Less-Skilled Natives." In John Abowd and Richard Freeman, eds, *Immigration, Trade, and the Labor Market*, (Chicago, IL: University of Chicago Press), 201-234.
2. Bernard, Andrew B. and J. Bradford Jensen. 1999. "Understanding Increasing and Decreasing Wage Inequality." In Robert C. Feenstra, ed., *The Impact of International Trade on Wages*, Chicago: University of Chicago Press.
3. Bernstein, Jeffrey R. and David E. Weinstein. 1998. "Do Endowments Predict the Location of Production? Evidence from National and International Data." NBER Working Paper No. 6815.
4. Blackorby, Charles, William Schworm, and Anthony Venables. 1993. "Necessary and Sufficient Conditions for Factor Price-Equalization." *Review of Economic Studies* 60: 413-434.

Unit 8 : Tariff, Quotas and Non-tariff Barriers : Definitions and Types

Notes

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Objectives

After reading this Unit students will be able to:

- Discuss the Definition and Types of Tariff and Non-tariff.
- Explain the Types of Quotas.

Introduction

A tax imposed on imported goods and services. Tariffs are used to restrict trade, as they increase the price of imported goods and services, making them more expensive to consumers. They are one of several tools available to shape trade policy. Governments may impose tariffs to raise revenue or to protect domestic industries from foreign competition, since consumers will generally purchase cheaper foreign produced goods. Tariffs can lead to less efficient domestic industries, and can lead to trade wars as exporting countries reciprocate with their own tariffs on imported goods. Organizations such as the WTO exist to combat the use of egregious tariffs.

Non-tariff barriers are another way for an economy to control the amount of trade that it conducts with another economy, either for selfish or altruistic purposes. Any barrier to trade will create an economic loss, as it does not allow markets to function properly. The lost revenues resulting from the barrier to trade can be called an economic loss.

Quota, in international trade, government-imposed limit on the quantity, or in exceptional cases the value, of the goods or services that may be exported or imported over a specified period of time. Quotas are more effective in restricting trade than tariffs, particularly if domestic demand for a commodity is not sensitive to increases in price. Because the effects of quotas cannot be offset by depreciation of the foreign currency or by an export subsidy, quotas may be more disturbing to the international trade mechanism than tariffs. Applied selectively to various countries, quotas can also be a coercive economic weapon.

Tariff quotas may be distinguished from import quotas. A tariff quota permits the import of a certain quantity of a commodity duty-free or at a lower duty rate, while quantities exceeding the quota are subject to a higher duty rate. An import quota, on the other hand, restricts imports absolutely.

Notes

If the quantity imported under a quota is less than would be imported in the absence of a quota, the domestic price of the commodity in question may rise. Unless the government maintains some system of licensing importers in order to capture as revenue the difference between the higher domestic price and the foreign price, the importing of such commodities can prove a lucrative source of private profit.

Quantitative trade restrictions were first imposed on a large scale during and immediately after World War I. During the 1920s quotas were progressively abolished and replaced by tariffs. The next great wave of quota protection came during the Great Depression in the early 1930s, with France leading the European countries in introducing a comprehensive quota system in 1931. After World War II, the western European countries began a gradual dismantling of quantitative import restrictions, but the United States tended to make more use of them.

8.1 Definition

Tariffs, which are taxes on imports of commodities into a country or region, are among the oldest forms of government intervention in economic activity. They are implemented for two clear economic purposes. First, they provide revenue for the government. Second, they improve economic returns to firms and suppliers of resources to domestic industry that face competition from foreign imports.

Tariffs are widely used to protect domestic producers' incomes from foreign competition. This protection comes at an economic cost to domestic consumers who pay higher prices for import-competing goods, and to the economy as a whole through the inefficient allocation of resources to the import competing domestic industry. Therefore, since 1948, when average tariffs on manufactured goods exceeded 30 percent in most developed economies, those economies have sought to reduce tariffs on manufactured goods through several rounds of negotiations under the General Agreement on Tariffs Trade (GATT). Only in the most recent Uruguay Round of negotiations were trade and tariff restrictions in agriculture addressed. In the past, and even under GATT, tariffs levied on some agricultural commodities by some countries have been very large. When coupled with other barriers to trade they have often constituted formidable barriers to market access from foreign producers. In fact, tariffs that are set high enough can block all trade and act just like import bans.

8.2 Types of Tariffs

Tariffs can be expressed in absolute or in relative terms, they may be discriminatory or non-discriminatory, they can be imposed on imports or on exports, and they may be prompted by considerations of revenue or protection to domestic industries.

They are expressed in absolute terms of dollars and cents per unit *e.g.* per tonne, or per pound of weight of the imported (or exported) quantity. Specific duties can be levied on goods like wheat or rice or sugar, but they can not be adopted for all goods and services especially in the case of valuable goods. For instance, specific tariffs can not be levied in the case of, say, diamonds, modern art paintings, transistors, television sets, etc. We cannot estimate duties on the articles by weighing them physically. The duty has to be estimated on the basis of the value of these products, rather than their physical weight. When, therefore, duty is levied on the basis of the value of the product measured by their money price, we have what are called as *ad valorem* tariffs (*ad valorem* is a Latin word which means "on the value"). *Ad valorem* tariff is a percentage tax.



Did u know?

Specific tariffs are those which are assessed on the basis of the physical weight of the product which is imported or exported.

There may also be a *compound tariff* which combines a specific duty with an *ad valorem* duty. The distinction between the two types of tariffs is of some significance. As the prices of imported goods rise, the *ad valorem* tariff based on a given fixed percentage brings greater revenue to the tariff imposing country, whereas specific tariffs lack such revenue elasticity with respect to import price changes.

Notes

A *discriminatory tariff* calls for different rates of duties depending on the country of origin or the destination of the product. For example, a country can impose higher rates of duty on goods coming into the country from, say, Australia and lower rates of duty on goods coming from Thailand. A *non-discriminatory tariff*, on the other hand, imposes a uniform rate of duty regardless of their source of origin. Tariffs are said to be *single column* when they are non-discriminatory, and *double column* when they are discriminatory.

Revenue tariffs are those which are imposed primarily to produce revenue for the government. With the introduction and expansion of income taxes and other direct taxes, the importance of tariffs as a source of revenue has considerably gone down, especially in developed countries. The less developed countries, however, still rely on tariffs as a substantial source of government revenues. In Malaysia, for example, the import and export duties together amount for well over 40 per cent of the total government revenues. In commercial policy, it is the *protective tariffs* that dominates the scene. When the tariffs are imposed primarily to protect the domestic industries from foreign competition, the country is said to have protective tariffs. The motive, here, is not revenue but protection of the domestic economy from foreign competition.

It is not possible to classify revenue tariffs and protective tariffs and put them into watertight compartments, because tariffs imposed for revenue will produce some protective effects and the protective tariffs yield some revenue as well. The difference between the two is basically with regard to their primary motive as such.

Finally, there are *retaliatory tariffs* and *countervailing tariffs*. When Country A imposes (or increases) duties against the products from Country B, it is possible that country B will retaliate and levy duties on goods imported from Country A. Country B's tariffs are then described as retaliatory tariffs. Their motive is neither to raise revenue nor to accord protection to domestic industries, but to act in retaliation. Tariffs are said to be countervailing when a country imposes (or increases) import duties with a view to offset export subsidy in the country of origin. For example, if Country B, the government of country B may think that country A is subsidizing its export to Country B, the government of country B may think that country A's products entering into Country B are enjoying "unfair advantage" over the country's domestic import replacement products, then Country B is justified in imposing countervailing duties on the products imported from Country A. The countervailing duties are primarily aimed at offsetting such an unfair advantage given by export subsidies in foreign countries. Import duties have received most of the analytical and policy attention and they are far more widespread than the export duties. In some countries like the United States, export duties are prohibited by law. In other countries where export duties are in vogue, their sole aim appears to be revenue collection. Import duties, however, are motivated by two other considerations, besides revenue *viz.* considerations of protection and balance of payments adjustment. In what follows, therefore, we will concentrate our tariff study only with reference to the import tariffs.

8.3 Quotas

A quota is simply a maximum limitation, specified in either value or physical units, on imports of a product for a given period. It is enforced through licenses issued to either importers or exporters and may be applied to imports from specific countries or from all foreign countries generally. Two examples illustrate these different characteristics. The United States imposes a general quota on dried milk imports; licenses are granted to certain U.S. trading companies, who are allowed to import a maximum quantity of dried milk based on their previous imports. In a different situation U.S. sugar imports are limited by a quota that specifies the shares of individual countries; the right to sell sugar to the United States is given directly to the governments of these countries.

Import Quotas

A quota is a direct limitation of the physical quantity of exports and imports permitted in the country. We will only discuss import quotas as they are more common than the export quotas. The effects of quotas are similar to those of tariffs, but there are also substantive differences between the two which are worth examining.

Notes

Import quotas can be of different types. First of all, there can be *unilateral quotas* which can be *global* or *allocated*. In case of global quotas, quota is fixed in global terms and any foreign country can supply the amount fixed by quota at the lowest price. The quota imposing country gets the price advantage and the global quotas are non-discriminatory. The allocated quotas, however, involve allocating and distributing the quota among different foreign countries on the basis of a pre-determined criterion. The allocated quotas are discriminatory; and the quota imposing country does not necessarily get the price advantage of the global quota system. Then there can be *bilateral quotas* as opposed to unilateral quotas. Bilateral quotas imply mutual agreement between countries through negotiation. The advantage of these quotas is that they do not provoke retaliation. Finally, there are what are called as mixing or indirect quotas, in whose case the domestic producers are asked to use a fixed proportion of imported and local materials used in producing their products. The quota is fixed not in absolute terms but in percentage terms.

Let us now come to the question of import quotas *versus* import duties and see their differences and similarities. Until the appearance of new contributions in the late 1960s and early 1970s, particularly made by Bhagwati and Corden, it was thought that quotas and duties were hardly distinguishable by their effects. The more recent studies have, however, shown there is no strict equivalence between the two.

There are certain similarities between the quotas and the duties

- (a) they both have the same objectives, *viz.* to reduce the level of imports so as to protect domestic industries, correct balance of payments deficits, expand domestic employment and economic activities. While their objectives are the same, their methods are different. A tariff acts directly on the price and indirectly on the quantity of the imported goods. A quota acts directly on the quantity of imports and has an indirect effect on the price of the imported goods.
- (b) A tariff of a certain height cuts imports to a certain quantity—it has, therefore, a quota equivalent. A quota would limit imports to a certain quantity and therefore, raises the import price—it has, thus, a tariff equivalent, and
- (c) Since both quotas and tariffs raise the import price and reduce the import quantity they produce similar effects on consumption, production, trade balance, terms of trade, national income, redistribution, factor movements, economic growth and economic welfare.

The important differences between quotas and tariffs would be as follows :

- (a) Tariffs bring revenues to the government whereas quotas do not. This raises certain redistribution and welfare issues. Under tariffs, a part of consumers' loss goes to the government by way of tariff revenue. Under the quota system the extent of consumers' loss will be more or less the same, but to whom that surplus goes is ambiguous. It could go to the government if the government charged a fee for selling import licences. In that case, the import licence fee, will be an equivalent of an import tariff. If, however, the quotas are distributed freely to the importers without charging a fee, then importer's surplus will increase at the cost of government revenue or consumer's welfare loss. Furthermore, tariff revenue can be used for social expenditure; but the quota profits, going to the importers, may not contribute to net social welfare.
- (b) Distribution of import licences (associated with quotas) may give rise to corruption and bribery on the part of government officials. Import tariffs do not create such evils of government corruption, political favoritism, nepotism, etc.
- (c) Quotas could be more effective than tariffs particularly when the domestic demand and supply curves for the import good are inelastic. See Figure 8.1.

If, as in the Figure 8.1, the demand and supply curves are inelastic, tariffs will fail to reduce import quantities. From the free trade price P_p the tariffs have raised the price to a substantially higher level, P_r , and yet the quantity imported has not been cut down by tariffs. Tariffs have, of course, resulted in substantial government revenues, but they have failed to generate protective

effects. Import quotas, if called upon, will certainly do a job of restricting imports to any desirable size and thereby create all the necessary protective effects. In that sense quotas succeed where tariffs may fail.

Notes

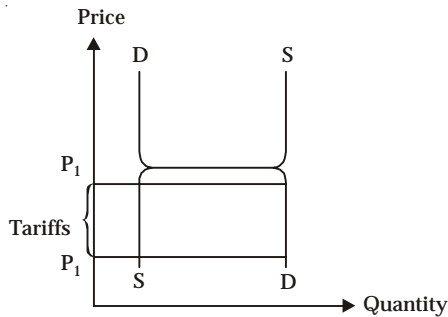


Figure 8.1 : Inelastic Demand and Supply Conditions Affecting Tariffs.

- (d) The terms of trade effects of tariffs are determinate or predictable, but those resulting from quotas are indeterminate or unpredictable. See the Figure 8.2 A-B.

Tariff imposition, in Figure 8.1 A, shifts the tariff-imposing country's offer curve from OH to OH_1 which would result in an improvement in the country's term of trade. This is shown by the steeper, OT_1 terms of trade line (after tariffs) as compared with the free trade terms of trade line OT_0 . In Figure 8.2 B, we show the result of quota imposition on the country's terms of trade. The quota-imposing country's offer curve is OH and the foreign country's offer curve is OF . Free trade equilibrium is at Q where the terms of trade are shown by the line OT_0 . At trade equilibrium point Q , the country's imports are OM_0 (and exports are M_0Q); and the country may impose a quota on the imports such that the imports are reduced by the quota equal to the size of OM_1 .

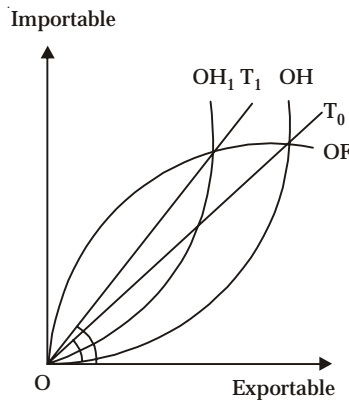


Figure 8.2 A

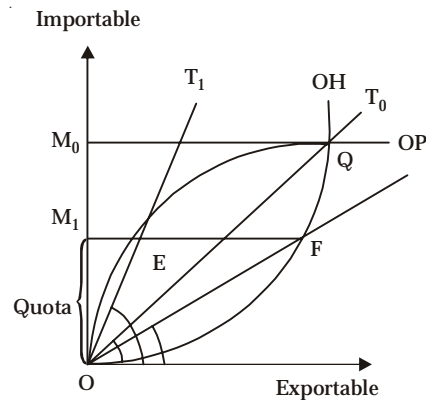


Figure 8.2 B

Diagram 8 A-B : Terms of Trade Effect of Tariffs and Terms of Trade Effect of Quotas.

The question that now arises is what would be the country's terms of trade as a result of fixing the import quota at OM_1 level. Now, draw a line from M_1 horizontally straight, and this line cuts foreign country's offer curve at E and the home country's offer curve at F . If, after the quota imposition, trade equilibrium takes place at E , then the quota-imposing country's (or home country's) terms of trade improve, because OT_1 is steeper than OT_0 . On the other hand, if the new trade equilibrium takes place at F , then the country's terms of trade would worsen as indicated by the line OT_2 which is less steep compared to OT_0 . This would make the terms of trade effects of quotas somewhat unpredictable, whereas the effects of tariffs on the country's terms of trade are somewhat predictable.

Notes

This argument, however, can not be stretched too far because, as we have seen earlier, even the effects of tariffs on the country's terms of trade movement are also not very clear-cut.

- (e) There are several reasons why domestic producers, importers and even governments, may prefer quotas to tariffs. From the government's point of view, quotas are easy to impose, remove, change and administer. Secondly, international attitude is more permissive on quotas than on tariffs. Thirdly, high tariff levels necessary to achieve significant import reductions could seriously damage the public image of the protected industry. For this reason, the domestic producers may prefer "invisible" quota protection to the 'Visible' tariff protection. Fourthly, as the total demand for the product grows, a given quota fixed in absolute terms would be more protective to the domestic producers. A tariff, on the other hand, would not prevent foreign imports gaining their share of the expanded market in the protected sector of the economy. Fifthly, it may be argued that quotas allow at least some imports into the country, while tariffs may be too prohibitive to allow any imports at all. This may have relevance from the standpoint of consumers of the imported product. Finally, the possibility of capturing good profits from the quota would be a strong reason for the importers to press for quota method rather than the tariff method.

In conclusion, both quotas and tariffs provoke retaliation by the rest of the world. Both are anti-trade, and both tend to reduce economic welfare and allocative efficiency. And it is generally believed that quotas are more obnoxious than tariffs, because quotas carry additional costs, apart from those that are carried by the tariffs.

Effectiveness of Protection

Until recently, the degree of protection enjoyed by the domestic industry was thought to be a relatively simple matter. A ten per cent tariff on a finished imported product was said to give a ten per cent protection to the domestically produced import-replacement product. The degree of protection was, thus, measured by the rate of tariff duty imposed on the imported finished product. In the 1960s, however, a new concept was developed to measure the degree of protection which an industry enjoyed in a country. This is the concept of *effective* rate of protection, as opposed to the *nominal* rate of protection. The effective protection.

8.3 Definition and Types of Non-Tariff Barriers

Non-tariff barriers to trade (NTBs) are trade barriers that restrict imports but are not in the usual form of a tariff. Some common examples of NTB's are anti-dumping measures and countervailing duties, which, although called non-tariff barriers, have the effect of tariffs once they are enacted. Their use has risen sharply after the WTO rules led to a very significant reduction in tariff use. Some non-tariff trade barriers are expressly permitted in very limited circumstances, when they are deemed necessary to protect health, safety, sanitation, or depletable natural resources. In other forms, they are criticized as a means to evade free trade rules such as those of the World Trade Organization (WTO), the European Union (EU), or North American Free Trade Agreement (NAFTA) that restrict the use of tariffs.

Some of non-tariff barriers are not directly related to foreign economic regulations but nevertheless have a significant impact on foreign-economic activity and foreign trade between countries. Trade between countries is referred to trade in goods, services and factors of production. Non-tariff barriers to trade include import quotas, special licenses, unreasonable standards for the quality of goods, bureaucratic delays at customs, export restrictions, limiting the activities of state trading, export subsidies, countervailing duties, technical barriers to trade, sanitary and phyto-sanitary measures, rules of origin, etc. Sometimes in this list they include macroeconomic measures affecting trade.

Types of Non-Tariff Barriers

There are several different variants of division of non-tariff barriers. Some scholars divide between internal taxes, administrative barriers, health and sanitary regulations and government procurement policies. Others divide non-tariff barriers into more categories such as specific limitations on trade,

customs and administrative entry procedures, standards, government participation in trade, charges on import, and other categories.

The first category includes methods to directly import restrictions for protection of certain sectors of national industries : licensing and allocation of import quotas, antidumping and countervailing duties, import deposits, so-called voluntary export restraints, countervailing duties, the system of minimum import prices, etc. Under second category follow methods that are not directly aimed at restricting foreign trade and more related to the administrative bureaucracy, whose actions, however, restrict trade, for example : customs procedures, technical standards and norms, sanitary and veterinary standards, requirements for labeling and packaging, bottling, etc. The third category consists of methods that are not directly aimed at restricting the import or promoting the export, but the effects of which often lead to this result.

The non-tariff barriers can include wide variety of restrictions to trade. Here are some example of the popular NTBs.

Licenses

The most common instruments of direct regulation of imports (and sometimes export) are licenses and quotas. Almost all industrialized countries apply these non-tariff methods. The license system requires that a state (through specially authorized office) issues permits for foreign trade transactions of import and export commodities included in the lists of licensed merchandises. Product licensing can take many forms and procedures. The main types of licenses are general license that permits unrestricted importation or exportation of goods included in the lists for a certain period of time; and one-time license for a certain product importer (exporter) to import (or export). One-time license indicates a quantity of goods, its cost, its country of origin (or destination), and in some cases also customs point through which import (or export) of goods should be carried out. The use of licensing systems as an instrument for foreign trade regulation is based on a number of international level standards agreements. In particular, these agreements include some provisions of the General Agreement on Tariffs and Trade and the Agreement on Import Licensing Procedures, concluded under the GATT (GATT).

Licensing of foreign trade is closely related to quantitative restrictions—quotas - on imports and exports of certain goods. A quota is a limitation in value or in physical terms, imposed on import and export of certain goods for a certain period of time. This category includes global quotas in respect to specific countries, seasonal quotas, and so-called “voluntary” export restraints. Quantitative controls on foreign trade transactions carried out through one-time license.

Quantitative restriction on imports and exports is a direct administrative form of government regulation of foreign trade. Licenses and quotas limit the independence of enterprises with a regard to entering foreign markets, narrowing the range of countries, which may be entered into transaction for certain commodities, regulate the number and range of goods permitted for import and export. However, the system of licensing and quota imports and exports, establishing firm control over foreign trade in certain goods, in many cases turns out to be more flexible and effective than economic instruments of foreign trade regulation. This can be explained by the fact, that licensing and quota systems are an important instrument of trade regulation of the vast majority of the world.

The consequence of this trade barrier is normally reflected in the consumers’ loss because of higher prices and limited selection of goods as well as in the companies that employ the imported materials in the production process, increasing their costs. An import quota can be unilateral, levied by the country without negotiations with exporting country, and bilateral or multilateral, when it is imposed after negotiations and agreement with exporting country. An export quota is a restricted amount of goods that can leave the country. There are different reasons for imposing of export quota by the country, which can be the guarantee of the supply of the products that are in shortage in the domestic market, manipulation of the prices on the international level, and the control of goods strategically important for the country. In some cases, the importing countries request exporting countries to impose voluntary export restraints.

Notes

Agreement on a “voluntary” export restraint

In the past decade, a widespread practice of concluding agreements on the “voluntary” export restrictions and the establishment of import minimum prices imposed by leading Western nations upon weaker in economical or political sense exporters. The specifics of these types of restrictions is the establishment of unconventional techniques when the trade barriers of importing country, are introduced at the border of the exporting and not importing country. Thus, the agreement on “voluntary” export restraints is imposed on the exporter under the threat of sanctions to limit the export of certain goods in the importing country. Similarly, the establishment of minimum import prices should be strictly observed by the exporting firms in contracts with the importers of the country that has set such prices. In the case of reduction of export prices below the minimum level, the importing country imposes anti-dumping duty, which could lead to withdrawal from the market. “Voluntary” export agreements affect trade in textiles, footwear, dairy products, consumer electronics, cars, machine tools, etc.

Problems arise when the quotas are distributed between countries because it is necessary to ensure that products from one country are not diverted in violation of quotas set out in second country. Import quotas are not necessarily designed to protect domestic producers. For example, Japan, maintains quotas on many agricultural products it does not produce. Quotas on imports is a leverage when negotiating the sales of Japanese exports, as well as avoiding excessive dependence on any other country in respect of necessary food, supplies of which may decrease in case of bad weather or political conditions.

Export quotas can be set in order to provide domestic consumers with sufficient stocks of goods at low prices, to prevent the depletion of natural resources, as well as to increase export prices by restricting supply to foreign markets. Such restrictions (through agreements on various types of goods) allow producing countries to use quotas for such commodities as coffee and oil; as the result, prices for these products increased in importing countries.



Notes

Embargo is a specific type of quotas prohibiting the trade. As well as quotas, embargoes may be imposed on imports or exports of particular goods, regardless of destination, in respect of certain goods supplied to specific countries, or in respect of all goods shipped to certain countries.

Although the embargo is usually introduced for political purposes, the consequences, in essence, could be economic.

Standards

Standards take a special place among non-tariff barriers. Countries usually impose standards on classification, labeling and testing of products in order to be able to sell domestic products, but also to block sales of products of foreign manufacture. These standards are sometimes entered under the pretext of protecting the safety and health of local populations.

Administrative and bureaucratic delays at the entrance

Among the methods of non-tariff regulation should be mentioned administrative and bureaucratic delays at the entrance, which increase uncertainty and the cost of maintaining inventory.

Import deposits

Another example of foreign trade regulations is import deposits. Import deposits is a form of deposit, which the importer must pay the bank for a definite period of time (non-interest bearing deposit) in an amount equal to all or part of the cost of imported goods.

At the national level, administrative regulation of capital movements is carried out mainly within a framework of bilateral agreements, which include a clear definition of the legal regime, the procedure

for the admission of investments and investors. It is determined by mode (fair and equitable, national, most-favored-nation), order of nationalization and compensation, transfer profits and capital repatriation and dispute resolution.

Foreign exchange restrictions and foreign exchange controls

Foreign exchange restrictions and foreign exchange controls occupy a special place among the non-tariff regulatory instruments of foreign economic activity. Foreign exchange restrictions constitute the regulation of transactions of residents and nonresidents with currency and other currency values. Also an important part of the mechanism of control of foreign economic activity is the establishment of the national currency against foreign currencies.

The Transition from Tariffs to Non-tariff Barriers

One of the reasons why industrialized countries have moved from tariffs to NTBs is the fact that developed countries have sources of income other than tariffs. Historically, in the formation of nation-states, governments had to get funding. They received it through the introduction of tariffs. This explains the fact that most developing countries still rely on tariffs as a way to finance their spending. Developed countries can afford not to depend on tariffs, at the same time developing NTBs as a possible way of international trade regulation. The second reason for the transition to NTBs is that these tariffs can be used to support weak industries or compensation of industries, which have been affected negatively by the reduction of tariffs. The third reason for the popularity of NTBs is the ability of interest groups to influence the process in the absence of opportunities to obtain government support for the tariffs.

Non-tariff barriers today

With the exception of export subsidies and quotas, NTBs are most similar to the tariffs. Tariffs for goods production were reduced during the eight rounds of negotiations in the WTO and the General Agreement on Tariffs and Trade (GATT). After lowering of tariffs, the principle of protectionism demanded the introduction of new NTBs such as technical barriers to trade (TBT). According to statements made at United Nations Conference on Trade and Development (UNCTAD, 2005), the use of NTBs, based on the amount and control of price levels has decreased significantly from 45% in 1994 to 15% in 2004, while use of other NTBs increased from 55% in 1994 to 85% in 2004.

Increasing consumer demand for safe and environment friendly products also have had their impact on increasing popularity of TBT. Many NTBs are governed by WTO agreements, which originated in the Uruguay Round (the TBT Agreement, SPS Measures Agreement, the Agreement on Textiles and Clothing), as well as GATT articles. NTBs in the field of services have become as important as in the field of usual trade.

Most of the NTB can be defined as protectionist measures, unless they are related to difficulties in the market, such as externalities and information asymmetries between consumers and producers of goods. An example of this is safety standards and labeling requirements.

The need to protect sensitive to import industries, as well as a wide range of trade restrictions, available to the governments of industrialized countries, forcing them to resort to use the NTB, and putting serious obstacles to international trade and world economic growth. Thus, NTBs can be referred as a new of protection which has replaced tariffs as an old form of protection.

Self-Assessment

1. Choose the correct options:

- (i) Protecting domestic producers against import competition:
 - (a) Helps those producers.
 - (b) Helps domestic consumers of the product.
 - (c) Probably helps the importing nation as a whole.
 - (d) All of the above.

Notes

- (ii) A nontariff barrier operates by:
 - (a) Limiting the quantity of imports.
 - (b) Increasing the cost of getting imports to market.
 - (c) Creating uncertainty about the conditions under which imports will be permitted.
 - (d) All of the above.
- (iii) One of the reasons that protectionists and government officials may favor using a quota instead of a tariff is:
 - (a) Quotas generate more revenue for the government than do tariffs.
 - (b) A quota ensures that the quantity of imports is strictly limited.
 - (c) Quotas create less market distortions than do tariffs.
 - (d) Quotas give less power to politicians than do tariffs.
- (iv) A quota:
 - (a) Causes domestic prices to fall.
 - (b) Causes world prices to rise.
 - (c) Restricts the quantity of a good that can be imported.
 - (d) Is always more efficient than a tariff.
- (v) In the case of a small country, a quota and a tariff are (almost) identical if:
 - (a) The government allocates licenses for free to importers using a rule or process that involves (almost) no resource cost.
 - (b) The government auctions off licenses to the highest bidder.
 - (c) The government allocates licenses to importers through application and selection procedures that require the use of substantial resources.
 - (d) The government allocates import licenses directly to the public using a free lottery system.
- (vi) Which of the following is a means of allocating import licenses by assigning the licenses without competition, applications, or negotiation?
 - (a) Fixed favoritism.
 - (b) Resource-using application procedures.
 - (c) Import-license auctions.
 - (d) Domestic content requirements.
- (vii) Which of the following requires that an import distributor buy a certain percentage of the product locally?
 - (a) An import quota.
 - (b) A mixing requirement.
 - (c) A voluntary export restraint.
 - (d) A domestic content requirement.

8.4 Summary

- Tariffs, which are taxes on imports of commodities into a country or region, are among the oldest forms of government intervention in economic activity.
- Tariffs are widely used to protect domestic producers' incomes from foreign competition. This protection comes at an economic cost to domestic consumers who pay higher prices for import-competing goods, and to the economy as a whole through the inefficient allocation of resources to the import competing domestic industry.
- Tariffs can be expressed in absolute or in relative terms, they may be discriminatory or non-discriminatory, they can be imposed on imports or on exports, and they may be prompted by considerations of revenue or protection to domestic industries.

Notes

- There may also be a *compound tariff* which combines a specific duty with an *ad valorem* duty. The distinction between the two types of tariffs is of some significance. As the prices of imported goods rise, the *ad valorem* tariff based on a given fixed percentage brings greater revenue to the tariff imposing country, whereas specific tariffs lack such revenue elasticity with respect to import price changes.
- A *discriminatory tariff* calls for different rates of duties depending on the country of origin or the destination of the product. For example, a country can impose higher rates of duty on goods coming into the country from, say, Australia and lower rates of duty on goods coming from Thailand. A *non-discriminatory tariff*, on the other hand, imposes a uniform rate of duty regardless of their source of origin.
- A quota is simply a maximum limitation, specified in either value or physical units, on imports of a product for a given period. It is enforced through licenses issued to either importers or exporters and may be applied to imports from specific countries or from all foreign countries generally. Two examples illustrate these different characteristics.
- There are several different variants of division of non-tariff barriers. Some scholars divide between internal taxes, administrative barriers, health and sanitary regulations and government procurement policies.

8.5 Key-Words

1. Tariff : A tax imposed on imported goods and services. Tariffs are used to restrict trade, as they increase the price of imported goods and services, making them more expensive to consumers. They are one of several tools available to shape trade policy.
2. Non-tariff Barriers : A form of restrictive trade where barriers to trade are set up and take a form other than a tariff. Nontariff barriers include quotas, levies, embargoes, sanctions and other restrictions, and are frequently used by large and developed economies.

8.6 Review Questions

1. Define tariff. Discuss the types of tariff.
2. Explain Non-tariff barriers and its types.
3. Distinguish between quotas and non-tariff barriers.

Answers: Self-Assessment

1. (i) (a) (ii) (d) (iii) (b) (iv) (c) (v) (b)
(vi) (a) (vii) (b)

8.7 Further Readings



1. Evans, G., Newnham, J., Dictionary of International Relations; Penguin Books, 1998.
2. Filanlyason, J., Zakher M., The GATT and the regulation of Trade Barriers: Regime Dynamic and Functions; International Organization, Vol. 35, No. 4, 1981.
3. Frieden, J., Lake, D., International political economy: perspectives on global power and wealth, London: Routledge, 1995.
4. Mansfield, E., Busch, M., The political economy of Non-tariff barriers: a cross national analysis; International Organization, Vol. 49, No. 4, 1995.
5. Oatley, T., International political economy: interests and institutions in the global economy; Harlow: Longman, 2007.

Unit 9: Economic Effects of Tariff and Quotas on National Income, Output and Employment

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Objectives

After reading this Unit students will be able to:

- Analyse the Economic Effects of Tariff and Quotas
- Discuss Impact to the Economy of A country with the Tariff Imposed on It.

Introduction

A tariff is simply a tax or duty placed on an imported good by a domestic government. Tariffs are usually levied as a percentage of the declared value of the good, similar to a sales tax. Unlike a sales tax, tariff rates are often different for every good and tariffs do not apply to domestically produced goods.

The upcoming book Advanced International Trade: Theory and Evidence by Robert Feenstra gives three situations in which governments often impose tariffs:

- To protect fledgling domestic industries from foreign competition.
- To protect aging and inefficient domestic industries from foreign competition.
- To protect domestic producers from dumping by foreign companies or governments. Dumping occurs when a foreign company charges a price in the domestic market which is "too low". In most instances "too low" is generally understood to be a price which is lower in a foreign market than the price in the domestic market. In other instances "too low" means a price which is below cost, so the producer is losing money.

The cost of tariffs to the economy is not trivial. The World Bank estimates that if all barriers to trade such as tariffs were eliminated, the global economy would expand by 830 billion dollars by 2015. The economic effect of tariffs can be broken down into two components:

- The impact to the country which has a tariff imposed on it.
- The impact to the country imposing the tariff.

In almost all instances the tariff causes a net loss to the economies of both the country imposing the tariff and the country the tariff is imposed on.

9.1 Impact to the Economy of a Country with the Tariff Imposed on It

It is easy to see why a foreign tariff hurts the economy of a country. A foreign tariff raises the costs of domestic producers which causes them to sell less in those foreign markets. In the case of the softwood

lumber dispute, it is estimated that recent American tariffs have cost Canadian lumber producers 1.5 billion Canadian dollars. Producers cut production due to this reduction in demand which causes jobs to be lost. These job losses impact other industries as the demand for consumer products decreases because of the reduced employment level. Foreign tariffs, along with other forms of market restrictions, cause a decline in the economic health of a nation. The next section explains why tariffs also hurt the economy of the country which imposes them.

Except in all but the rarest of instances, tariffs hurt the country that imposes them, as their costs outweigh their benefits. Tariffs are a boon to domestic producers who now face reduced competition in their home market. The reduced competition causes prices to rise. The sales of domestic producers should also rise, all else being equal. The increased production and price causes domestic producers to hire more workers which causes consumer spending to rise. The tariffs also increase government revenues that can be used to the benefit of the economy.

There are costs to tariffs, however, now the price of the good with the tariff has increased, the consumer is forced to either buy less of this good or less of some other good. The price increase can be thought of as a reduction in consumer income. Since consumers are purchasing less, domestic producers in other industries are selling less, causing a decline in the economy.

Generally the benefit caused by the increased domestic production in the tariff protected industry plus the increased government revenues does not offset the losses the increased prices cause consumers and the costs of imposing and collecting the tariff. We haven't even considered the possibility that other countries might put tariffs on our goods in retaliation, which we know would be costly to us. Even if they do not, the tariff is still costly to the economy. In my article *The Effect of Taxes on Economic Growth* we saw that increased taxes cause consumers to alter their behavior which in turn causes the economy to be less efficient. Adam Smith's *The Wealth of Nations* showed how international trade increases the wealth of an economy. Any mechanism designed to slow international trade will have the effect of reducing economic growth. For these reasons economic theory teaches us that tariffs will be harmful to the country imposing them. That's how it should work in theory. How does it work in practice?

9.2 Empirical Evidence on the Effect of Tariffs

Study after study has shown that tariffs cause reduced economic growth to the country imposing them. A few of examples:

1. The essay on Free Trade at The Concise Encyclopedia of Economics looks at the issue of international trade policy. In the essay, Alan Blinder states that "one study estimated that in 1984 U.S. consumers paid \$42,000 annually for each textile job that was preserved by import quotas, a sum that greatly exceeded the average earnings of a textile worker. That same study estimated that restricting foreign imports cost \$105,000 annually for each automobile worker's job that was saved, \$420,000 for each job in TV manufacturing, and \$750,000 for every job saved in the steel industry."
2. In the year 2000 President Bush raised tariffs on imported steel goods between 8 and 30 percent. The Mackinac Center for Public Policy cites a study which indicates that the tariff will reduce U.S. national income by between 0.5 to 1.4 billion dollars. The study estimates that less than 10,000 jobs in the steel industry will be saved by the measure at a cost of over \$400,000 per job saved. For every job saved by this measure, 8 will be lost.

The cost of protecting these jobs is not unique to the steel industry or to the United States. The National Center For Policy Analysis estimates that in 1994 tariffs cost the U.S. economy 32.3 billion dollars or \$170,000 for every job saved. Tariffs in Europe cost European consumers \$70,000 per job saved while Japanese consumers lost \$600,000 per job saved through Japanese tariffs.

These studies, like many others, indicate that tariffs do more harm than good. If these tariffs are so bad for the economy, why do governments keep enacting them? We'll discuss that question in the next section.

Study after study has shown that tariffs, whether they be one tariff or hundreds, are bad for the economy. If tariffs do not help the economy, why would a politician enact one? After all politicians

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are reelected at a greater rate when the economy is doing well, so you would think it would be in their self interest to prevent tariffs.

Recall that tariffs are not harmful for everyone, and they have a distributive effect. Some people and industries gain when the tariff is enacted and others lose. The way gains and losses are distributed is absolutely crucial in understanding why tariffs along with many other policies are enacted. To understand the logic behind the policies we need to understand The Logic of Collective Action. My article titled The Logic of Collective Action discusses the ideas of a book by the same name, written by Mancur Olson in 1965. Olson explains why economic policies are often to the benefit of smaller groups at the expense of larger ones. Take the example of tariffs placed on imported Canadian softwood lumber. We'll suppose the measure saves 5,000 jobs, at the cost of \$200,000 per job, or a cost of 1 billion dollars to the economy. This cost is distributed through the economy and represents just a few dollars to every person living in America. It is obvious to see that it's not worth the time and effort for any American to educate himself about the issue, solicit donations for the cause and lobby congress to gain a few dollars. However, the benefit to the American softwood lumber industry is quite large. The ten-thousand lumber workers will lobby congress to protect their jobs along with the lumber companies that will gain hundreds of thousands of dollars by having the measure enacted. Since the people who gain from the measure have an incentive to lobby for the measure, while the people who lose have no incentive to spend the time and money to lobby against the issue, the tariff will be passed although it may, in total, have negative consequences for the economy.

You can meet the workers whose jobs will be lost if tariffs are not enacted by the government. Since the costs of the policies are distributed far and wide, you cannot put a face on the cost of a poor economic policy. Although 8 workers might lose their job for every job saved by a softwood lumber tariff, you will never meet one of these workers, because it is impossible to pinpoint exactly which workers would have been able to keep their jobs if the tariff was not enacted. If a worker loses his job because the performance of the economy is poor, you cannot say if a reduction in lumber tariffs would have saved his job. The nightly news would never show a picture of a California farm worker and state that he lost his job because of tariffs designed to help the lumber industry in Maine. The link between the two is impossible to see. The link between lumber workers and lumber tariffs is much more visible and thus will garner much more attention.

The gains from a tariff are clearly visible but the costs are hidden, it will often appear that tariffs do not have a cost. By understanding this we can understand why so many government policies are enacted which harm the economy. If you'd like to ask a question about tariffs, taxation, international trade or any other topic or comment on this story.



Did u know? The gains from tariff policies are a lot more visible than the losses. You can see the saw mills which would be closed down if the industry is not protected by tariffs.

Self-Assessment

1. Choose the correct options:

- (i) Over the past several years, the volume of world trade has:
 - (a) decreased because of increased government regulation of trade through tariffs and quotas
 - (b) decreased because of the decline in incomes brought on by global recession
 - (c) increased because of increased government regulation of trade through tariffs and quotas
 - (d) increased because of improvements in communications and transportation
- (ii) A tariff:
 - (a) raises the price of imported goods, increasing the demand for domestic substitutes
 - (b) lowers the cost of producing domestic goods
 - (c) offsets the effect of a quota
 - (d) raises the price of domestic goods, lowering the demand for them

- (iii) U.S. exports:
- (a) average 4-6 percent of GDP, as do imports
 - (b) average 18-20 percent of GDP, while imports average 10-12 percent
 - (c) average 10-12 percent of GDP, while imports average 15-17 percent
 - (d) average 1-2 percent of GDP, while imports average 4-6 percent
- (iv) Two nations, Gamma and Delta, both produce shoes and dresses. Gamma has a comparative advantage in the production of shoes if:
- (a) it can produce shoes with fewer resources than Delta
 - (b) its domestic opportunity cost of shoes in terms of dresses is lower than Delta's
 - (c) its supply of shoes is greater than Delta's
 - (c) it is wealthier than Delta
- (v) A decrease in the U.S. demand for Mexican goods will:
- (a) increase the demand for the peso and increase its dollar price
 - (b) increase the supply of the peso and decrease its dollar price
 - (c) decrease the supply of the peso and increase its dollar price
 - (d) decrease the demand for the peso and decrease its dollar price
- (vi) One major outcome of the North American Free Trade Agreement is:
- (a) massive investment by Asian companies in Mexico to exploit reduced tariffs
 - (b) increased unemployment in Mexico
 - (c) higher average living standards in Canada, Mexico, and the U.S.
 - (d) reduced exports from the U.S. to Mexico and Canada

9.3 Summary

- A tariff is simply a tax or duty placed on an imported good by a domestic government. Tariffs are usually levied as a percentage of the declared value of the good, similar to a sales tax. Unlike a sales tax, tariff rates are often different for every good and tariffs do not apply to domestically produced goods.
- The cost of tariffs to the economy is not trivial. The World Bank estimates that if all barriers to trade such as tariffs were eliminated, the global economy would expand by 830 billion dollars by 2015. The economic effect of tariffs can be broken down into two components.
- It is easy to see why a foreign tariff hurts the economy of a country. A foreign tariff raises the costs of domestic producers which causes them to sell less in those foreign markets.
- There are costs to tariffs, however, now the price of the good with the tariff has increased, the consumer is forced to either buy less of this good or less of some other good. The price increase can be thought of as a reduction in consumer income. Since consumers are purchasing less, domestic producers in other industries are selling less, causing a decline in the economy.
- Generally the benefit caused by the increased domestic production in the tariff protected industry plus the increased government revenues does not offset the losses the increased prices cause consumers and the costs of imposing and collecting the tariff. We haven't even considered the possibility that other countries might put tariffs on our goods in retaliation, which we know would be costly to us. Even if they do not, the tariff is still costly to the economy.

9.4 Key-Words

1. Tariff policies : A tariff policy is a strategy of taxing imported or exported goods and services from one country to another. These taxes often seek to protect domestic industries or punish countries for policies related or unrelated to the economy. Considered by friendlier countries to be a barrier to

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production and positive interaction, some countries have created exceptions to their tariff policies known as free trade agreements or free trade zones.

2. Empirical Evidence : Empirical evidence (also empirical data, sense experience, empirical knowledge, or the a posteriori) is a source of knowledge acquired by means of observation or experimentation. Empirical evidence is information that justifies a belief in the truth or falsity of an empirical claim. In the empiricist view, one can only claim to have knowledge when one has a true belief based on empirical evidence.

9.5 Review Questions

1. Discuss the Impact to the Economy of a Country with the Tariff Imposed on It.
2. What is the Empirical Evidence on the Effect of Tariffs? Discuss

Answers: Self-Assessment

- | | | |
|------------|----------|-----------|
| 1. (i) (d) | (ii) (a) | (iii) (c) |
| (iv) (b) | (v) (d) | (v) (c) |

9.6 Further Readings



1. Evans, G., Newnham, J., Dictionary of International Relations; Penguin Books, 1998.
2. Filanlyason, J., Zakher M., The GATT and the regulation of Trade Barriers: Regime Dynamic and Functions; International Organization, Vol. 35, No. 4, 1981.
3. Frieden, J., Lake, D., International political economy: perspectives on global power and wealth, London: Routledge, 1995.
4. Mansfield, E., Busch, M., The political economy of Non-tariff barriers: a cross national analysis; International Organization, Vol. 49, No. 4, 1995.
5. Oatley, T., International political economy: interests and institutions in the global economy; Harlow: Longman, 2007.

Unit 10 : Political Economy of Non-tariff Barriers : and Their Applications

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Objectives

After reading this Unit students will be able to:

- Analyse the Political Economy of Non-tariff Barriers.
- Discuss the Societal Approaches to Trade Policy.

Introduction

Much research on the determinants of trade policy has focused on the efficacy of societal and statist approaches. Societal theories typically attribute patterns of protection to variations in demands made by pressure groups, whereas statist theories emphasize the effects of the “national interest” and domestic institutions in determining the level of protection. While both approaches have gained considerable currency, debates concerning their relative merits have been heated and long-standing. Yet very little quantitative evidence has been brought to bear on this topic.

In this article, we provide some of the first results of this sort. Our findings indicate that although societal and statist approaches often are considered mutually exclusive, it is more fruitful to view them as complementary. Moreover, the interaction between factors that give rise to demands for protection and those that regulate the provision of protection by policymakers has not been treated adequately in the literature on foreign economic policy. This gap in the literature is fundamentally important, since our results indicate that the interaction between these factors is a central determinant of trade policy. Thus, analyses of commercial policy that fail to consider both societal and statist variables and the interaction between them are likely to be inadequate.

Our analysis centers on explaining cross-national patterns of nontariff barriers (NTBs). Scholars have conducted little cross-national research on trade policy and virtually none with a focus on NTBs. Instead, single-country studies of tariffs comprise much of the existing literature on the political economy of commercial policy. Yet the usefulness of societal and statist theories of foreign economic policy hinges on the ability of these theories to explain variations in protection across states, and NTBs have become increasingly pervasive among the advanced industrial countries. Because the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO) limit the ability of contracting parties to impose tariffs, policymakers who view protection as an attractive means by which to meet the demands of pressure groups or advance state interests are likely to rely primarily on NTBs. Many observers have suggested that this is occurring with increasing regularity and that the recent proliferation of NTBs has done much to offset the gains in liberalization made

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during successive rounds of the GATT. A fuller understanding is therefore needed of the factors that account for variations in NTBs across states.

10.1 Societal Approaches to Trade Policy

Societal (or pluralist) approaches to the study of foreign economic policy focus primarily on the effects of demands for protection by pressure groups. Societal explanations consider trade policy to be the product of competition among pressure groups and other nonstate actors that are affected by commerce. The impact of these groups on policy depends largely on their ability to organize for the purpose of articulating their demands and on the amount of electoral influence they possess. Societal approaches attribute little importance to policymakers and political institutions for the purposes of explaining trade policy. As G. John Ikenberry, David Lake, and Michael Mastanduno point out, societal theories view the state as “essentially passive; it acts as a disinterested referee for competing groups, and supplies policies to satisfy the demands of successful domestic players.”

Societal approaches to the study of trade policy characterize much of the literature on endogenous protection. Empirical studies of this sort infer the demands for protection based on macroeconomic and/or sectoral fluctuations. Most analyses of endogenous protection conducted by political scientists have been cast at the sectoral level. A large and growing body of literature, however, centers on the macroeconomic determinants of protection. Much of this research supports the view advanced by certain societal theories that macroeconomic fluctuations strongly influence pressures for protection. Therefore we focus our societal analysis of NTBs on macroeconomic factors.

Chief among the macroeconomic variables that these studies emphasize are unemployment and the real exchange rate. It is widely accepted by analysts of trade policy that high levels of unemployment contribute to demands for protection. Widespread unemployment increases the costs to workers of adjusting to rising import levels. Workers who are displaced by imports will find it progressively more difficult to obtain alternative employment, and when they do, downward pressure will be placed on their wages. Together these factors promote pressures to restrict the flow of imports.

In addition to unemployment, variations in the exchange rate are expected to give rise to protectionist pressures. In fact, Rudiger Dornbusch and Jeffrey Frankel argue that “hypotheses concerning the exchange rate may be the most important macroeconomic theories of protection.”



Did u know?

“Conventional wisdom suggests that high levels of unemployment are the single most important source of protectionist pressures.”

Central to the effects of the exchange rate on demands for protection is the influence of the price of a state’s currency on the competitiveness of its exports and its import-competing products. An appreciated currency, by increasing the price of domestically produced goods, threatens to undermine both exports and import-competing sectors of the economy. As C. Fred Bergsten and John Williamson point out in a related context, these developments are likely to contribute to “pressure that is generated for protectionist measures. Export and import-competing firms and workers will tend to seek help from their governments to offset these distortions, which undermine their ability to compete, with some degree of legitimacy since the distortions are accepted—in some cases, even fostered—by those governments. Coalitions in support of trade restrictions will be much easier to form, and much broader in their political clout, because no longer will only the most vulnerable firms and workers be seeking help—and no longer will the countervailing pressures from successful exporters be as effective.”

Public officials in liberal democracies are expected to meet demands for protection that arise due to high levels of unemployment and an appreciated currency because these variables influence the voting behavior of constituents. There is evidence that voters cast ballots on the basis of their personal economic circumstances, especially if they are recently unemployed. However, substantial evidence also indicates that voters cast ballots on the basis of macroeconomic conditions, regardless of whether they are directly affected by these conditions. In fact, some studies have concluded that macroeconomic

factors are more salient determinants of voting behavior than are personal economic circumstances. Other survey research further suggests that public support for protection increases during downturns in the economy and when domestic industries are under severe pressure from foreign competition. As a result, public officials seeking to enhance their electoral fortunes have incentives to impose protection during periods of high unemployment and currency appreciation because such measures are likely to be popular and may blunt the short-term effects of macroeconomic pressures. These analyses therefore lead us to expect a direct relationship to exist between both the level of unemployment and the real exchange rate, on the one hand, and the incidence of NTBs, on the other hand.

10.2 Statist Approaches to Trade Policy

While societal approaches have been especially influential in the field of political economy, they also have been criticized on a number of grounds. Especially important is the charge leveled by statist and others that societal approaches systematically underestimate the effects of two factors that regulate the provision of protection : state interests with respect to trade policy and domestic institutions. Analyses that emphasize state interests generally focus on the roles of politicians and policymakers in the formation of trade policy, holding constant societal pressures. Further, as Ikenberry, Lake, and Mastanduno note, these analyses presume that the preferences of public officials “are partially, if not wholly, distinct from the parochial concerns of either societal groups or particular government institutions, and are tied to conceptions of the ‘national interest’ or the maximization of some social welfare function.”

Many statist conclude that the ability of policymakers to advance the national interest depends in large measure on the extent to which domestic political institutions render them susceptible to demands by pressure groups and other nonstate actors. Policymakers who are poorly insulated from, and lack autonomy with respect to, pressure groups will face difficulty advancing the national interest unless (as discussed further below) it converges with the preferences of societal groups. Thus, one hypothesis we will test is that institutional factors that foster the insulation and autonomy of public officials bolster the ability of states to pursue trade policy consistent with the national interest.

Relative size

Clearly, the national interest with respect to trade is likely to vary across states; and it is not possible to assess adequately the influence of institutional factors on trade policy from a statist perspective unless each state’s interest can be specified. On this score, many analysts have argued that a state’s economic size governs its national interest with respect to trade policy.

There is ample reason to expect that larger states will display a more pronounced interest in protection than their smaller counterparts. First, international trade theory suggests that this should be the case. By virtue of their size, large states are likely to be vested with disproportionate market power. They can exploit their monopoly power through the use of tariffs, as well as quotas and other NTBs that duplicate a tariffs effect. If the imposition of an optimal quota elicits retaliation, the welfare of both parties will suffer. This, however, only limits the incentives for a large state to impose NTBs against a state of similar size, since only states with some monopoly power have an incentive to retaliate in response to the imposition of protection. Large states retain an incentive to target small states, since the latter have no incentive to retaliate. In contrast, small states are unlikely to possess the market power necessary to benefit from optimal protection and face the prospect of retaliation by trade partners (thereby reducing foreign commerce on which they tend to be highly dependent) if they impose NTBs. Hence, on average, we expect larger states to display a greater preference for NTBs than their smaller counterparts.

Second, state size is likely to be directly related to patterns of protection due to the time period analyzed in this article. As discussed further below, the empirical analysis conducted in this study is based on the mid-1980s. In the opinion of many scholars, this was a period characterized by a moderately skewed distribution of power among a few relatively large nonhegemonic states. A number of studies have concluded that systems of this sort—as well as ones in which hegemony is declining—

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provide incentives for the dominant states to behave in a commercially predatory manner. Based on these considerations, we expect that economic size will be directly related to the incidence of NTBs.

We measure a state's relative economic size in two ways : the ratio of its imports to total global imports and the ratio of its gross domestic product (GDP) to total global GDP. The first variable has been used repeatedly as a measure of economic size. The second is also important because states with relatively large GDPs are likely to possess greater market power and to be better able to forgo commerce than are states with relatively small GDPs.

Although it is clear that these two measures of relative size should be highly correlated, analyzing both allows us to determine whether our empirical results are sensitive to the measure that is used. Moreover, analyzing both measures of size is important because the ratio of national imports to global imports is closely related to the measure of trade dependence used by Ronald Rogowski; and his analysis implies that any observed effect on NTBs of those domestic institutions on which we focus here (and that are discussed below) might be due to the effects of trade dependence on both domestic institutions and NTBs. Further, including national GDP as a percentage of global GDP is important because Wendy Takacs links the level of national product to macroeconomic cycles that give rise to demands for protection. Contrary to the hypothesis discussed above, however, she finds that national product is inversely related to escape clause investigations and (to a lesser degree) to positive findings by the U.S. International Trade Commission in such cases. Including both measures of size allows us to examine each of these issues.

Domestic institutions

From a statist viewpoint, NTBs should be most prevalent in large states characterized by high degrees of institutional insulation and autonomy, since these conditions provide policymakers with an economic incentive to impose NTBs and vest them with the capacity to advance those interests.

Our analysis of institutions draws heavily on an important study by Rogowski. He argues that "insulation from regional and sectoral pressure in a democracy ... is most easily achieved with large electoral districts. ... [This argument is] easily defended, in part because institutional theorists have almost universally accepted it..., but more because it is almost self-evident. When automakers or dairy farmers entirely dominate twenty small constituencies and are a powerful minority in fifty more, their voice will be heard in a nation's councils. When they constitute but one or two percent of an enormous district's electorate, representatives may defy them more freely."



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Rogowski maintains that the autonomy of public officials in democratic states is bolstered by both large constituencies and the existence of a list-system PR regime.

Rogowski therefore relies on the (natural logarithm) number of parliamentary constituencies in the most powerful legislative body (or, in those cases where the most powerful body is not obvious, the chamber with the most members) of each democratic state as a measure of institutional insulation and autonomy. It is expected that insulation and autonomy will be inverse functions of the number of constituencies in any democracy. All other things being equal, a larger number of constituencies reduces the size of the average constituency in each state. The smaller is this average size, the more homogeneous is each district, the fewer is the number of special interests that are likely to exist per constituency, and the greater will be the political influence of each pressure group in that district.

As a result, small electoral districts encourage patronage and pork-barrel politics. Since legislators representing small districts are likely to be beholden to a few influential pressure groups, they are likely to attempt to provide those groups with benefits, including trade policies that reflect their preferences. Yet in polities composed of many small constituencies, no single legislator has the capacity to provide these benefits. As Barry Weingast and William Marshall argue, "This, in combination with the diversity of interests they represent, generates a gain from exchange and cooperation among legislators." The logrolling to which this situation gives rise is likely to yield trade policy that covers

more types of goods and services than would be the case in a country characterized by large electoral districts and less influential interest groups.

In addition to the number of parliamentary constituencies, another important institutional feature of democracies concerns whether a list-system proportional representation (PR) or a winner-take-all system exists. Rogowski notes, "Pressure groups are restrained where campaign resources or the legal control of nominations are centralized in the hands of party leaders. Of course, such control is achieved quite effectively in rigid list-system PR."

We begin the following analysis by focusing on the effects of the number of parliamentary constituencies on NTBs. We then analyze the effects of both the number of constituencies and whether a state's electoral system is winner-take-all or PR. We take this tack to determine whether our results are robust with respect to the inclusion of PR in our model. Doing so is useful because some studies have found that differences exist in the autonomy of policymakers among various PR systems and that, in certain cases, public officials in PR systems may be vested with less autonomy than their counterparts in winner-take-all systems.

10.3 Effects of the Interaction between Societal and Statist Factors on Trade Policy

Although the relative merits of societal and statist approaches to the study of foreign economic policy have been hotly debated, quantitative comparisons of them have been rare. Rarer still have been empirical analyses of the impact of the interaction between societal and statist factors on trade policy. The few previous studies of this sort have focused almost exclusively on U.S. commercial policy. Additionally, much of their effort has been directed at explaining tariffs, rather than NTBs. However, its unusual size and institutional structure may limit how broadly conclusions based on studies of U.S. trade policy can be applied. Further, it is widely recognized that successive rounds of the GATT limited the ability of member states to respond to demands for protection or to advance state interests by imposing tariffs. Since the states we examine are all contracting parties to the GATT, our focus on explaining NTBs (rather than tariffs) is especially important. Indeed, the need to analyze the effects of factors that govern demands for and the provision of protection—as well as the interactions among them—on cross-national patterns of NTBs is a glaring gap in the literature, and one that we seek to redress.

We focus on two related issues concerning the interaction between societal and statist factors. As noted above, some statist argue that the policies of states in which policymakers are poorly insulated from societal pressures tend to reflect the interests of societal groups rather than the national interest. There is also reason to expect increases in societal demands for protection during cyclical downturns in the economy and when macroeconomic conditions undermine the competitiveness of a state's goods. Thus, one hypothesis we will examine is that the incidence of NTBs tends to be greatest in states characterized by (1) high levels of unemployment and appreciated currencies and (2) domestic institutions that undermine the insulation and autonomy of public officials with respect to pressure groups.



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What you mean by Statist Factor?

A second hypothesis we will test is that the incidence of NTBs is greatest in cases where both state and societal actors display a preference for protection. Although much of the literature bearing on the interaction between statist and societal factors has focused on the effects of divergent preferences between state and societal actors, the possibility that their preferences might converge has been raised in a number of studies, although it has not been analyzed in sufficient detail. If such a convergence is

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an important determinant of NTBs, then their incidence should be greatest in large states characterized by (1) high levels of unemployment and appreciated currencies and (2) political institutions that bolster the insulation and autonomy of public officials with respect to pressure groups. As noted above, deteriorating macroeconomic conditions elicit demands for protection, and public officials who fail to respond to these demands may suffer accordingly in subsequent elections. Further, in contrast to small states, large states often have an incentive to impose protection; and public officials that are well-insulated and vested with considerable autonomy will be in a position to act on those incentives, and would be expected to do so.

A high degree of institutional insulation and autonomy is essential in this regard. Although we expect high levels of unemployment and appreciated currencies to yield widespread demands for protection, some societal groups are likely to retain an interest in lower trade barriers. These groups include multinational corporations, industries that depend on or are highly sensitive to the price of imports, and industries that depend on exports and fear either that increases in protection by their government will elicit retaliation by foreign governments or that protection will reduce foreign exports and hence the ability of foreign consumers to purchase their imports. Moreover, in a study of U.S. trade policy, I. M. Destler and John Odell found that the political pressure exerted by these antiprotectionist forces increased during those periods when macroeconomic downturns led to broad-based societal pressures for protection. Their influence, like that of other societal groups, depends on the structure of domestic institutions. Thus, large states characterized by high levels of unemployment and appreciated currencies should experience a higher incidence of NTBs when institutions insulate policymakers from those groups that prefer lower trade barriers than when porous institutions enhance the influence of these groups on trade policy.

10.4 The Relationship between Tariffs and NTBs

In addition to the hypotheses described above, we also examine the effects of preexisting tariff levels on NTBs. Doing so is important because preexisting tariff levels may influence both the strength of societal demands for NTBs and the willingness of public officials to meet these demands. Groups already well protected by tariffs may bring less pressure for new NTBs and face more governmental resistance to their demands than less well protected groups. This suggests that tariffs and NTBs are substitutes, which is consistent with the view expressed by some economists that NTBs are often used to protect industries that have lost tariff protection due to successive rounds of the GATT. Jagdish Bhagwati refers to this dynamic as the “law of constant protection.” As he points out, “The evidence of increased nontariff barriers and administered protection just as tariffs had been reduced to new lows suggests the intriguing possibility that there may be a Law of Constant Protection : If you reduce one type of protection, another variety simply pops up elsewhere. (You then have a Displacement Effect, not evidence of any increase in protectionist pressure.)”

In contrast to this view, another prominent position holds that tariffs and NTBs are complements. Those who advance this argument maintain that NTBs are often used to protect those industries that are also the beneficiaries of high tariffs, while states avoid using NTBs to shield industries that receive little tariff protection. Edward John Ray, for example, mentions that U.S. NTBs may be concentrated in industries least affected by the Kennedy Round of the GATT. In contrast to the law of constant protection, a direct relationship between tariffs and NTBs might suggest that NTBs are used to counter new foreign challenges to important sectors that are already the beneficiaries of tariff protection. Indeed, the results of a number of single-country analyses seem to support this position. Cross-national studies, however, have produced more ambiguous evidence on this score.

A related reason to include tariffs in our model is that they might account for any observed relationship between societal and statist variables, on the one hand, and the incidence of NTBs, on the other hand. Various studies have found that the unemployment rate, the exchange rate, economic size, and institutional factors are related to patterns of tariffs; and the research discussed in this section links tariffs to patterns of NTBs. It is therefore important to determine whether tariffs influence the effects of macroeconomic and institutional factors on NTBs.

A model of non-tariff barriers to trade

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Our initial model, then, is :

$$\begin{aligned} \text{NTB}_{t+1} = & A + B_1 \text{SIZE}_t + B_2 (\log \text{CONST})_t + B_3 (\text{SIZE} \cdot \log \text{CONST})_t + (1) \\ & B_4 \text{UNEM}_t + B_5 (\text{UNEM} \cdot \log \text{CONST})_t + B_6 (\text{UNEM} \cdot \text{SIZE} \cdot \log \text{CONST})_t \\ & + B_7 \text{REER}_t + B_8 (\text{REER} \cdot \log \text{CONST})_t + B_9 \\ & (\text{REER} \cdot \text{SIZE} \cdot \log \text{CONST})_t + B_{10} \text{TARIFF}_t + e_t. \end{aligned}$$

The dependent variable, NTB_{t+1} , is the proportion of imports subject to NTBs in each state in year $t + 1$ based on the United Nations Conference on Trade and Development's (UNCTAD) "inventory list" of NTBs. As Sam Laird and Alexander Yeats observe, this list includes "Variable import levies and product specific charges (excluding tariff quotas); Quotas; Prohibitions (including seasonal prohibitions) : non-automatic import authorisations including restrictive import licensing requirements; quantitative 'voluntary' export restraints; and trade restraints under the Multifibre Arrangement." It is, of course, difficult to gauge the extent of NTB protection within or across states. Unlike tariffs, NTBs have no natural measure of intensity, and calculations of advalorem equivalents of NTBs have proven to be unreliable. Some analysts have treated NTBs as a dichotomous variable based on whether or not a given sector is protected by them. Others have estimated the level of NTBs based on the difference between the predicted and observed openness of an economy.

In contrast to these approaches, we examine the incidence of NTBs. This measure is chosen because the UNCTAD trade coverage ratios are viewed by many experts as the most reliable estimates of NTBs across states and because it is the most appropriate variable with which to test our theory. For example, politics characterized by many (and therefore small) parliamentary constituencies may be especially prone to pork-barrel politics. Under these conditions, logrolling is likely to be pervasive and the preferences of many different interest groups are therefore likely to be reflected in trade policy. Since the extent and variety of interest-group demands reflected in trade policy bear directly on the incidence of protection, we focus on explaining the incidence of NTBs. The coverage ratios that we analyze measure the proportion of a state's imports that are subject to NTBs.

Turning to the independent variables, SIZE_t is the economic size of each state in year t . It was pointed out earlier that both the ratio of national imports to total global imports and the ratio of national GDP to global GDP are used to measure relative state size. Thus, we estimate the parameters in equation (1) using both variables. In addition, $\log \text{CONST}_t$ is the natural logarithm of the number of parliamentary constituencies in each state in year t based on Rogowski's data; UNEM_t is the unemployment rate in each state in year t ; REER_t is an index of the real exchange rate in each state in year t ; TARIFF_t is the average national post-Tokyo Round offer rate for each state; and e_t is an error term. The remaining variables are included in order to determine whether, as we hypothesized above, the interaction between factors that regulate the provision of protection ($\text{SIZE} \cdot \log \text{CONST}$), and the interaction between factors that govern demands for protection and those that regulate its supply, are important determinants of cross-national patterns of NTBs.

Data limitations led us to focus on explaining NTBs in 1983 and 1986. UNCTAD provides data on NTBs for fourteen advanced industrial states in these years. The fourteen states are : Belgium-Luxembourg, Denmark, Finland, France, Greece, Ireland, Italy, Japan, the Netherlands, Norway, Switzerland, the United Kingdom, the United States, and West Germany. Although UNCTAD also provides NTB data for New Zealand, our results indicated that this country was a statistical outlier. We therefore excluded New Zealand and focus on the aforementioned fourteen states in the following analysis. Because NTBs are measured in 1983 and 1986 (years $t + 1$), the independent variables in equation (1) (except for TARIFF) are measured in 1982 and 1985 (years t). The observations for 1983 and 1986 are initially pooled; however, the extent to which the incidence of NTBs varied between 1983 and 1986 is also examined below.

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It should be noted at the outset that all of the states analyzed in this study are advanced industrial countries. This precludes, for example, an assessment of whether our findings vary depending on a state's level of economic development. It is also clear that caution must be exercised when offering generalizations based on an analysis of such a limited time period. But since the tendency for advanced industrial countries to rely on NTBs became increasingly pervasive during the 1980s and virtually no quantitative cross-national research has been conducted on the issues addressed here, our results should provide a useful first cut at the hypotheses presented above.

Regression diagnostics

Before proceeding, a number of issues regarding the regression results presented need to be addressed. First, in a cross-sectional analysis such as that conducted here, one concern is that the errors in the regression (e_i) will not have a common variance. Under these circumstances, the OLS estimates will be heteroscedastic and therefore inefficient. White tests yielded no evidence of heteroscedasticity in the present case.

Second, as noted above, it is important to ensure that our decision to pool data across 1983 and 1986 was appropriate. It is obvious that if the effects of the independent variables in equations (1) and (2) on NTBs vary over time, this procedure would be inappropriate. However, analysis-of-variance tests yielded no evidence that the model is unstable between 1983 and 1986, and Chow tests also yielded no evidence that any of the individual regression coefficients is unstable across time.

Third, the use of OLS might be inappropriate because the value of the dependent variable (NTB) is a proportion (and therefore is bounded by zero and one). Under these conditions, OLS estimates may be inefficient and predict proportions of NTB that exceed one or are less than zero. Since it is well-known that a Tobit model can be used to deal with these problems, we estimated the parameters in equations (1) and (2) using that model. The results were virtually identical to those. Apparently, the fact that the dependent variable is truncated poses no problem here.

Fourth, we should examine the extent to which our results are sensitive to influential observations. To this end, we estimated the parameters in equations (1) and (2) after deleting observations one at a time. Our findings indicated that the signs and statistical significance of the regression coefficients are quite robust with respect to the deletion of individual observations. Regardless of which measure of economic size was used, there was no case in which the sign of a regression coefficient changed, and in fewer than 5 percent of the cases did a regression coefficient fail to remain significant once any observation was removed from the sample. Indeed, this number of changes would be expected by chance alone.

Fifth, it is important to ensure that our results are not vitiated by multicollinearity. The results of bivariate correlations and auxiliary regressions indicated that all of those few cases in which multicollinearity might be a problem involved PR and TARIFF. To determine whether the effects of the remaining variables in the model were sensitive to the inclusion of PR and TARIFF, we deleted these variables (as well as PR · SIZE) from the model individually and in combination. The signs, sizes, and levels of statistical significance of the remaining variables in equations (1) and (2) were quite robust with respect to the inclusion or omission of these variables.

Finally, it is useful to consider the possibility that variables omitted from our model may influence the findings. Particularly important in this regard is whether the extent of government intervention in the economy influences the rate of unemployment and its propensity to impose NTBs. We therefore included in equations (1) and (2) the ratio of government expenditures to GDP in year t , which is a measure of government intervention. The results of this analysis indicate that the regression coefficient of this variable is negative and statistically significant in every case. This may reflect the tendency for states characterized by high levels of government spending to buffer and compensate societal groups disproportionately, thereby reducing demands for protection from groups that are adversely affected by imports. It is important to note, however, that the inclusion of this variable in our models has no effect on the sign or level of statistical significance of any remaining variable, including UNEM, UNEM · log CONST, and UNEM · SIZE · log CONST. Nor are the quantitative effects of the variables in equations (1) and (2)—and, hence, the conditions that maximize and minimize the incidence of NTBs—influenced in any substantial way by its inclusion.

Some illustrations of the statistical findings

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Having tested our model, it is useful to illustrate how the societal and statist variables on which we focused affected trade policy in the countries considered here. While detailed case studies are beyond the scope of this article, anecdotal evidence suggests that these variables were salient influences on commercial policy during the 1980s.

Consider, for example, the role that the exchange rate played in United States trade policy. Between 1983 and 1986, the incidence of U.S. NTBs rose by over 25 percent. Much of this rise seems to be due to a significant appreciation in the dollar. While the values of the other independent variables in our model changed relatively little from 1982 to 1985 in the case of the United States, the value of REER increased dramatically. The societal view that this appreciation should precipitate an increase in demands for protection accords with a number of accounts of exchange-rate politics in the United States during this period. I. M. Destler and C. Randall Henning note that, by the early 1980s, many sectors of U.S. industry had concluded that the dollar's strength was degrading their competitiveness. By 1985, their opposition to the dollar's strength reached a peak. Imports were flooding into the United States at a rate unprecedented during the post-World War II era and Destler and Henning maintain that "most [industries] considered the prime source of their problems [to be] the sky-high dollar." They also argue that "[w]hen the strong dollar triggered a flood of imports, a rise in protectionist bills was a predictable result." U.S. industry and labor petitioned the Reagan administration and Congress to remedy the dollar appreciation. With no direct control over exchange-rate policy, Congress responded by "generat[ing] a veritable explosion of trade legislation initiatives" in 1985. It is also noteworthy that the period from 1982 to 1985 witnessed a rapid surge in the number of petitions for trade-policy relief by U.S. industry and a turn toward managed-trade policies by the United States. These developments both led directly to an increase in the incidence of NTBs and, in the opinion of J. David Richardson, were largely attributable to the dollar's appreciation.

The effects of unemployment on NTBs are illustrated by the case of West Germany during the 1980s. From 1983 to 1986 the incidence of West German NTBs rose by approximately 15 percent; and from 1982 to 1985, the level of West German unemployment rose by about 25 percent, while the remaining independent variables in our model experienced only very modest fluctuations. Kathleen Thelen points out that throughout the post-World War II era, "the [West German] government sought first and foremost to maintain a stable currency and hold inflation in check, even if it meant higher unemployment." By 1983, the West German economy had deteriorated to the point where unemployment had reached its highest level since the end of World War II. Of particular importance for present purposes was the structural nature of West German unemployment. In 1983, over a quarter of those West Germans without jobs had been unemployed for more than one year. The Bundesbank reported that "[t]he prospects for bringing unemployment down quickly to a more bearable level are admittedly slim; this will certainly not happen in the short term." Labor problems reached a peak in 1984 with the metal workers' strike, which was designed in part to reduce unemployment. It is interesting that the Organization for Economic Cooperation and Development reported in 1986 that West German NTBs were most pervasive in those sectors where tariffs had been reduced and that among these were sectors in which metal workers were employed in large numbers (such as steel). This suggests that the government responded to mounting unemployment by increasing the incidence of NTBs in 1986. Given the political strength of organized labor, the traditional unwillingness of the government to enact macroeconomic policies to counter unemployment at the risk of undermining monetary stability, and Germany's mounting unemployment problems, West Germany's course of action is not surprising.

Further, it is interesting to compare the effects of institutional variations between Japan and the United States on their respective propensities to impose NTBs. It is often argued that Japan is a "strong" state in which policymakers are extremely well-insulated and autonomous with respect to interest groups. The United States, on the other hand, is often portrayed as a "weak" state in which policymakers lack both insulation and autonomy. Yet both of these countries are characterized by a relatively large number of parliamentary constituencies based on our sample of states. This suggests that public officials in both countries are likely to be susceptible to societal pressures (although not necessarily to the same extent); and it jibes with the view expressed in a number of recent studies that

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Japanese policymakers are far less autonomous and less insulated from interest groups than is implied by those who characterize it as a strong state. As Kent Calder argues, "Japan's system of medium-size electoral districts forces as many as five members of the largest political parties ... to run against one another in the same electoral district.... As a result,... legislators tend to be highly sensitive to constituency pressure, especially from relatively well-organized grassroots pressure groups such as agriculture and small business." A primary foreign policy interest of these groups is the prevention of the loss of domestic markets to imports, and this has led them to form alliances with politicians and bureaucrats that are likely to undermine the insulation and autonomy of these state actors.

Going a step further, it is useful to consider the results presented in light of this discussion of Japanese and U.S. institutions. In 1986, for example, Japan and the United States were the two largest states in our sample, both countries had appreciated currencies and relatively little unemployment, and neither state's electoral system was PR. From the standpoint of our model, the primary difference between them was that the United States had noticeably more constituencies than did Japan. As a result, it would be expected on the basis of this model that Japanese policymakers would be somewhat better insulated and more autonomous than their American counterparts, and that this institutional feature would better enable them to pursue the national interest. It, therefore, is not surprising that the incidence of NTBs was greater in Japan than in the United States during 1986. At the same time, however, both Japanese and U.S. NTBs were relatively high in 1986 based on the sample of countries considered here. This is consistent with the view described above that, while Japanese policymakers are vested with greater institutional capacity (and therefore are better able to advance the national interest as they see it) than their American counterparts, the institutional characteristics of Japan and the United States are more similar than is often recognized. Clearly, the cases presented in this section can be taken as no more than suggestive of the ways in which societal and statist factors influence trade policy. Yet these examples do illustrate why the variables emphasized in our model are so strongly related to cross-national patterns of NTBs.

Self -Assessment**1. Choose the correct option**

- (i) Protecting domestic producers against import competition:
 - (a) Helps those producers.
 - (b) Helps domestic consumers of the product.
 - (c) Probably helps the importing nation as a whole.
 - (d) All of the above.
- (ii) A nontariff barrier operates by:
 - (a) Limiting the quantity of imports.
 - (b) Increasing the cost of getting imports to market.
 - (c) Creating uncertainty about the conditions under which imports will be permitted.
 - (d) All of the above.
- (iii) One of the reasons that protectionists and government officials may favor using a quota instead of a tariff is:
 - (a) Quotas generate more revenue for the government than do tariffs.
 - (b) A quota ensures that the quantity of imports is strictly limited.
 - (c) Quotas create less market distortions than do tariffs.
 - (d) Quotas give less power to politicians than do tariffs.
- (iv) A quota:
 - (a) Causes domestic prices to fall.
 - (b) Causes world prices to rise.
 - (c) Restricts the quantity of a good that can be imported.
 - (d) Is always more efficient than a tariff.

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- (v) In the case of a small country, a quota and a tariff are (almost) identical if:
 - (a) The government allocates licenses for free to importers using a rule or process that involves (almost) no resource cost.
 - (b) The government auctions off licenses to the highest bidder.
 - (c) The government allocates licenses to importers through application and selection procedures that require the use of substantial resources.
 - (d) The government allocates import licenses directly to the public using a free lottery system.
- (vi) Which of the following is a means of allocating import licenses by assigning the licenses without competition, applications, or negotiation?
 - (a) Fixed favoritism.
 - (b) Resource-using application procedures.
 - (c) Import-license auctions.
 - (d) Domestic content requirements.
- (vii) Which of the following requires that an import distributor buy a certain percentage of the product locally?
 - (a) An import quota.
 - (b) A mixing requirement.
 - (c) A voluntary export restraint.
 - (d) A domestic content requirement.

10.5 Summary

- Our results have a number of implications for studies of the political economy of trade policy. In recent years, one of the most persistent sources of debate among both economists and political scientists has centered on the relative merits of societal and statist explanations of foreign economic policy. Our findings lend support for the societal argument that macroeconomic fluctuations contribute to demands for protection, which are in turn central determinants of trade policy.
- Large states have a greater incentive to impose protection than their smaller counterparts, and our findings indicate that they do in fact impose NTBs more widely than small states. It is curious that, despite the clear importance of this factor, it has been considered so rarely in empirical research on trade policy. Our results indicate that this omission is likely to yield incomplete and potentially misleading conclusions regarding the determinants of commercial policy.
- Our findings bear out the position NTBs is at least partially governed by economic size, domestic institutions, and the interaction between these factors. More specifically, NTBs are highest in, large states that are characterized by high levels of institutional insulation and autonomy. Thus, states are most likely to impose NTBs when economic incentives to do so exist and when strong domestic institutions insulate policymakers from interest-group pressures, thereby allowing them to advance the national interest unencumbered by those pressure groups that display preferences for freer trade.
- These findings stand in stark contrast to predictions based on either societal or statist models of foreign economic policy artic models—including most endogenous models of protection—emphasize factors related to societal demands for protection, but systematically neglect the factors that regulate the provision of trade barriers.
- Finally, our results yield substantial evidence that tariffs are strongly related to the incidence of NTBs, and that these forms of protection are substitutes. This finding is consistent with the law of constant protection. Among the states considered here, new tariffs could not easily have been imposed due to GATT restrictions. States with low tariff levels that wish to augment their trade barriers therefore have had reason to rely on NTBs for this purpose. Further, states

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characterized by high tariff levels are likely to be sufficiently well-protected that they need not supplement tariffs with NTBs. Our findings suggest the possibility that many of the tariff reductions made by the GATT during the Tokyo Round may not have had the intended effect of reducing protection. Instead, these cuts seem to have produced countervailing increases in the incidence of NTBs.

- In addition to the implications of this study, it is also important to address its limitations. One limitation of this sort concern the available data on NTBs. While the coverage ratios on which we relied are viewed by many as the best data of their kind, NTBs are inherently difficult to measure. Further, these data are available for only a few years during the 1980s, and the determinants of NTBs may vary over time. Another limitation concerns the sample of states that was analyzed.

10.6 Key-Words

1. Political economy : The study and use of how economic theory and methods influences political ideology. Political economy is the interplay between economics, law and politics, and how institutions develop in different social and economic systems, such as capitalism, socialism and communism. Political economy *analyzes how public policy is created and implemented*.
2. Non-Tariff Barriers : A form of restrictive trade where barriers to trade are set up and take a form other than a tariff. Nontariff barriers include quotas, levies, embargoes, sanctions and other restrictions, and are frequently used by large and developed economies.

10.7 Review Questions

1. What do you mean by political economy? Discuss.
2. Discuss the societal approach to trade policy.
3. What are the effects of the interaction between societal and statistical factors? Explain

Answers: Self-Assessment

1. (i) (a) (ii) (d) (iii) (b) (iv) (c) (v) (b)
(vi) (a) (vii) (b)

10.8 Further Readings



1. Evans, G., Newnham, J., Dictionary of International Relations; Penguin Books, 1998.
2. Filanlyason, J., Zakher M., The GATT and the regulation of Trade Barriers: Regime Dynamic and Functions; International Organization, Vol. 35, No. 4, 1981.
3. Frieden, J., Lake, D., International political economy: perspectives on global power and wealth, London: Routledge, 1995.
4. Mansfield, E., Busch, M., The political economy of Non-tariff barriers: a cross national analysis; International Organization, Vol. 49, No. 4, 1995.
5. Oatley, T., International political economy: interests and institutions in the global economy; Harlow: Longman, 2007.

Unit 11 : Balance of Payments and Balance of Trade : Meaning and Components

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Objectives

After reading this Unit students will be able to:

- Know the Meaning of Balance of Payments and Balance of Trade.
- Explain the Components of Balance of Payments.
- Describe Autonomous and Accommodating Transactions.

Introduction

Balance of payments accounts are an accounting record of all monetary transactions between a country and the rest of the world. By the principles of double entry book-keeping method, monetary receipts are recorded in the credit side of the account and payments in the debit side. The two principal parts of the BOP accounts are the current account and the capital account. The current account shows the net amount a country is earning if it is in surplus, or spending if it is in deficit. The capital account records the net change in ownership of foreign assets. It includes the foreign exchange reserve account, along with loans and investments between the country and the rest of world. Balance of payments in accounting sense should always balance. But that does not imply that the balance of payments will always be in equilibrium — present liabilities are perfectly matched by the present asset positions of the country with respect to the rest of the world. To understand this, one has to understand three basic balances — merchandise trade balance, service trade balance and current account balance.

We often hear that the less developed countries (LDC's) suffer from adverse balance of payments and consequently experience chronic 'foreign exchange gap.' Persistent balance of payments (BOP) deficits have forced countries to resort to corrective measures like currency devaluation, imposition of tariffs, exchange controls, contractionary monetary and fiscal policies and exchange controls of various sorts. Even the so-called developed countries have been no exception to this tendency. Policies of import substitution and export promotion to achieve external balance (or balance of payments equilibrium) have led to serious problems of growth and trade for the countries of the world.

11.1 Meaning of Balance of Payments

The BOP is one of the oldest and the most important statistical statement for any country, especially the more open economies. Put in a nutshell the BOP of any country is “a systematic record of all

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economic transactions between the residents of a given country and of the residents of the rest of the world in an accounting period (*viz.* a year).” The system of BOP accounting, some of the concepts and terminologies used in the BOP expression and the interpretation of the BOP categories are of utmost importance to any student of international economics. Despite efforts by international organizations to secure uniformity of classification and presentation, the BOP accounting format differs between different countries. Even the term BOP is somewhat obscure. Yeager, for example, draws attention to the word ‘payments’ in the term BOP; this gives a false impression that the set of BOP accounts record items which involve only payments. The truth is that the BOP statements record both payments and receipts by a country. It is, as Yeager says, more appropriate to regard the BOP as a ‘balance of international transactions’ by a country. We will return to this question (and other related questions) later in the chapter. First let us study the system of BOP accounting.



Did u know? The word ‘balance’ in the term BOP does not imply a situation of comfortable equilibrium; it only means that it is a balance sheet of receipts and payments having an accounting balance.

11.2 Components of Balance of Payments

The BOP transactions include all the foreign receipts of and payments by a country during a given year. The receipts include all the earnings and borrowings of foreign exchange, and they are recorded as credit items. The payments include all the spending and lendings of foreign exchange, and they are recorded as debit items. As such, all the foreign receipts are financial inflows and all the foreign payments are financial outflows in an year. In the purely accounting or book-keeping sense the balance of payments must always balance, because the BOP is a schedule of debit and credit transactions which must necessarily be equal. While the equality of debits and credits (*i.e.* accounting balance) is inevitable, it does not necessarily follow that the BOP equilibrium is guaranteed. Accounting balance is consistent with BOP disequilibrium *i.e.* deficits and surpluses in the BOP.

The BOP statements basically include six major accounts which are as follows :

1. Goods Account
2. Services Account
3. Unilateral Transfers Account
4. Long-term Capital Account
5. Short-term Capital Account
6. International Liquidity Account.

Goods Account

It includes the value of merchandise exports and the value of merchandise imports. These items of foreign exchange earnings and spendings are called as “visible” items in the BOP. If the receipts from exports of goods happen to be equal to the payments for the imports of goods, we describe the situation as one of zero “goods balance.”

Otherwise there would be either a positive or a negative goods balance depending on whether we have receipts exceeding payments (positive) or payments exceeding receipts (negative). Positive goods balance is regarded as ‘favourable’ for a country and negative goods balance is regarded as ‘unfavourable.’

Service Account

Just as a country exports goods and imports goods (they may be final consumer goods, intermediate capital goods or raw materials) a country also exports and imports what are called as ‘services.’ Accordingly, services transactions are regarded as ‘invisible’ items in the BOP. They are invisible in

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the sense that service receipts and payments are not recorded at the port of entry or exist as is the case with the merchandise imports and exports receipts. Except for this, there is no meaningful difference between goods and services receipts and payments. Both constitute earnings or spendings of foreign exchange (as opposed to borrowings and lendings of foreign exchange). Goods and Services Accounts together constitute the largest and economically the most significant components in the BOP of any country.



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The *Service Account* records all the service exported and imported by a country in a year. Unlike goods which are tangible or 'visible,' services are intangible.

The service transactions take various forms. They basically include (a) transportation, banking and insurance receipts and payments from and to the foreign countries, (b) tourism, travel services and tourist purchases of goods and services received from foreign visitors to home country and paid out in foreign countries by home country citizens, (c) expenses of students studying abroad and receipts from foreign students studying in the home country, (d) expenses of diplomatic and military personnel stationed overseas as well as the receipts from similar personnel from overseas who are stationed in the home country, and (e) interest, profits, dividends and royalties received from foreign countries and paid out to foreign countries. These items are generally termed as investment income (or expenditure) or receipts and payments arising out of what are called as "capital services". For countries like Malaysia and Singapore which have large foreign investments in their countries or for countries like the USA, the UK, or France and Germany, which have huge investment operation overseas, the investment income payments and receipts constitute a very substantial loss or gain in terms of foreign exchange outflow and inflow. "Service Balance" is the sum of all invisible service receipts and payments, in which the sum could be positive or negative or zero. A positive sum is regarded as favourable to a country and a negative sum is considered as unfavourable. The terms are descriptive as well as prescriptive. Favourable goods and service balance is, therefore, something to strive for and unfavourable goods or service balance is something to avoid, both of which are in the national interest and welfare.

Unilateral Transfer Account

The third account in the BOP schedule is the *Unilateral Transfers Account*. This account includes all gifts, grants and reparation receipts and payments to foreign countries. Unilateral transfer consist of two types of transfers : (a) government transfers and (b) private transfers.

Foreign economic aid or assistance and foreign military aid or assistance received by the home country's government (or given by the home government to foreign governments) constitute government to government transfers. The United States foreign aid to India, for example, is a government transfer constituting a credit item in India's BOP (but a debit item in the US BOP). These are government to government donations or gifts. There is no well worked out theory to explain the behaviour of this account because these flows depend on political and institutional factors. The government donations (or aid or assistance) given to governments of other countries is a mixed bag given for either economic or political or humanitarian reasons. Private transfers, on the other hand, are funds received from or remitted to foreign countries on person-to-person basis. A Malaysian settled in the United States remitting \$100 a month to his aged parents in Malaysia, is a unilateral (private) transfer inflow item in the Malaysian BOP. An American pensioner who is settled after retirement in say, Italy, and who is receiving a monthly pension from America is also a private unilateral transfer causing a debit flow in the American BOP but a credit flow in the Italian BOP. Countries that attract retired people from other nations may, therefore, expect to receive an influx of foreign receipts in the form of pension payments. And countries which render foreign economic assistance on a massive scale can expect huge deficits in their unilateral transfer account. Unilateral transfer receipts and payments are also called "unrequited transfers" because as the name itself suggests, the flow is only in one direction with no automatic reverse flow in the other direction.

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There is no repayment obligation attached to these transfers because they are not borrowings and lendings but gifts and grants exchanged between government and people in one country with the governments and peoples in the rest of the world.

Long-Term Capital Accounts

It includes the amount of capital that has moved into or out of the country in a year. Any capital that has moved in or out of the country for a period of one year or more is regarded as long-term capital movement. The long-term capital account includes the following categories :

Private direct investment : These investments are done by home country citizens and firms in foreign countries (debit) and by foreigners in the home country (credit). This type of capital movement is induced by differences in profit rate between the home country and the rest of the world.

Private portfolio investment : These investments are done by home country citizens and firms in foreign securities or stocks or bonds or shares (debit) and by foreigners in home country securities, stocks, bonds, shares, etc. (credit). This type of movement in and out of a country is induced by differences in interest rate, dividends or rate of return on capital between the home country's financial assets and those of the foreign nations.

Government loans to foreign governments : These loans are given by home country's government (debit) and to the home government by foreign governments (credit).

If the foreign multinational corporations are investing heavily in our country, we receive capital inflow in the form of direct private investment. It has a favourable effect on our BOP. But when the foreign investors in our country start repatriating profits to their home country, there will be a capital outflow from our country to foreign countries. This goes into our service account as investment income outflow or capital service (debit). When the home country lends out long term capital to foreign countries, we experience capital outflow and hence a debit on our long-term capital account. But when we begin to receive reverse flow in the form of interest on lent out capital or profit on overseas investment the amount will be credited in our BOP as investment income receipt in service account. Capital lending countries would experience deficits on long-term capital account : and capital borrowing countries, like the LDCs, experience surpluses in their long-term capital account.

It is important to note that the long-term capital account includes *new* capital flows into and out of the country; the capital services item in the service account would include the amount of foreign receipts and payments on the cumulative total of *past* long-term capital investments. It is, therefore, possible for a creditor nation that is investing heavily overseas (like the USA) to incur debit or deficits in long-term capital account in the current year while at the same time running capital service item credits or surpluses in service account of equal or even larger magnitude than capital account outflows. A borrowing country, on the other hand receiving credits at present and therefore enjoying surpluses on long-term capital account must soon expect to lose a sizable sum as capital service obligations and, therefore, be ready to suffer deficits on service account. LDCs often experience investment income outflows (capital service account debits) exceeding new long-term capital inflows. The United States, a mature creditor country, regularly earns more from its past investments than it 'loses' in the form of new capital investment outflow. In this sense it is necessary to note that the long-term capital account bears a special relationship to one of the items (investment income item) in the Service Account.

Short-Term Capital Account

The fifth main account in the BOP, is the *Short Term Capital Account*. Bank deposits and other short term payments and credit arrangements fall into this category. Short term capital items fall due on demand or in less than one year, as opposed to long-term capital flows which have maturity after one year or thereafter. The vast majority of short term capital transactions basically represents bank transfers that finance trade and commerce. It is interesting to note that when Malaysian exporter exports rubber worth \$5 million to an importer in the United States, it generates a credit of \$5 million to the Malaysian merchandise account; but if the US importer pays this sum of \$5 million into the

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bank account of the Malaysian exporter held in New York bank, the sum of \$5 million would be held as debit in Malaysia's short term capital account. The latter constitutes a short term capital outflow of \$5 million from Malaysia to the United States.

It is also interesting to note that it is often hard to keep track of all the short term capital movements in and out of the country. They can at best be rough estimates. Indeed in some countries the separate category of short term capital account does not exist. These transactions are simply included in an account under the general term "Errors and Omissions including short-term capital account". This is what is done in the Malaysian system of BOP accounting. In some countries short term capital transactions are included in the "Unrecorded Transactions" as a separate BOP account in its own right. This Unrecorded Transactions Account or Errors and Omissions Account includes, besides short term capital movements, the following items as well.

- (a) Statistical and recording errors
- (b) Smuggling
- (c) Illegal and secret capital movements
- (d) Imperfect estimation procedures.

All of them, like short term capital movements are estimates and are treated as errors and omissions in the BOP accounting. Often it represents a difference in the sums of recorded credit and debit transactions in the first four accounts of BOP (*viz* goods account, services account, unilateral transfers account and long-term capital account). The fifth account in BOP schedule may therefore be called either as Short Term Capital Account or as Errors and Omissions including short term capital or simply as Unrecorded Transactions Account.

International Liquidity Account

The sixth and final BOP account is the *International Liquidity Account* which simply records net changes in foreign reserves. Essentially this account lists internationally acceptable means of settling international obligations. International Liquidity Account is best understood as follows :

- (A) In the following table total receipts on the first five accounts exceed the total payments on the same five accounts by a sum of \$150 million.

Table 1 : Surplus Case (\$ Million)

| | Credit (Receipts) | Debit (Payments) |
|---|------------------------------|-----------------------------|
| 1. Goods Account | 1,500 | 800 |
| 2. Services Account | 500 | 1,400 |
| 3. Unilateral Transfers Accounts | 100 | 120 |
| 4. Long Term Capital Account | 900 | 400 |
| 5. Errors & Omissions (including short term capital) Account | 500 | 630 |
| 6. International Liquidity Account | | 150 |
| 7. Balance of Payments | 3,500 | 3,500 |

The total receipts are \$3,500 million and total payments are \$3,350 million. There is a net BOP surplus amounting to \$150 million. This sum of \$150 million is entered into International Liquidity Account as debit. The logic of accounting for this sum of \$150 million as debit or payment is that, this sum represents either

- (a) purchase or import of gold worth \$150 million; or
- (b) net addition to accumulation of foreign reserves of \$150 million; or
- (c) capital lending in the sum of \$150 million to other countries on short term or long term basis.

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The International Liquidity Account in this case represents the BOP surplus magnitude and only shows how the BOP surplus is entered or accounted for in the balance sheet. A debit entry in the International Liquidity Account shows that there is a surplus in the BOP of the country for that year.

- (B) The following table has the exact opposite picture. The sum of debit payments (\$3,500 million) exceeds the sum of credit receipts (\$3,350 million) by \$150 million which represents the net deficit in the BOP due to the first five accounts in the table.

Table 2 : Deficit Case (\$ Million)

| | Credit (Receipts) | Debit (Payments) |
|---|------------------------------|-----------------------------|
| 1. Goods Account | 800 | 1,500 |
| 2. Service Account | 1,400 | 500 |
| 3. Unilateral Transfer Account | 120 | 100 |
| 4. Long Term Capital Account | 400 | 900 |
| 5. Errors & Omissions (including short term capital) Account | 630 | 500 |
| 6. International Liquidity Account | 150 | |
| 7. Balance of Payments | 3,500 | 3,500 |

The question to ask here is, how was this deficit of \$150 million financed ? The answer is that it was financed in one of the following three ways :

- selling or exporting gold worth \$150 million; or
- drawing down upon the past accumulated foreign reserves equal to the sum of \$150 million; or
- borrowing capital in the sum of \$150 million on short term or long term basis from friendly countries or international institutions, like the International Monetary Fund.

The International Liquidity Account in this case, then, represents the BOP deficit sum of \$150 million. This amount is entered as credit item to indicate how the sum of \$150 million was brought in to finance the deficit of that magnitude arising out of the first five accounts in the BOP schedule. A credit entry in the International Liquidity Account shows, therefore, that the country had a deficit in its BOP of that magnitude in that particular year.

Having understood the six major BOP accounts, it is possible now to study the important concepts and distinctions that one comes across in BOP discussions. Before we do that, let us take a look at the following sample of BOP schedule using some hypothetical numbers in each of the six accounts.

Table 3 : Balance of Payments Schedule—A Sample

| Major Accounts | Credit (Receipts) | Debit (Payments) | Net Surplus (+) or Deficit (-) |
|--|------------------------------|-----------------------------|---|
| 1. Goods Account | 200 | 180 | + 20 |
| 2. Services Account | 100 | 250 | - 150 |
| A. BALANCE OF TRADE (1 + 2) | (300) | (430) | (- 130) |
| 3. Unilateral Transfers Account | 300 | 120 | + 180 |
| B. BALANCE OF PAYMENTS ON CURRENT ACCOUNT (1 + 2 + 3) | (600) | (550) | (+ 50) |

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| | | | |
|--|--------------|--------------|---------------|
| 4. Long Term Capital Account | 150 | 120 | + 30 |
| C. BASIC BALANCE (1 + 2 + 3 + 4) | (750) | (670) | (+ 80) |
| 5. Short Term Capital Account | 50 | 40 | + 10 |
| D. BALANCE OF PAYMENTS ON CAPITAL ACCOUNT (4 + 5) | (200) | (160) | (+ 40) |
| E. OVERALL BALANCE OF PAYMENTS (B + D) | (800) | (710) | (+ 90) |
| 6. International Liquidity Account Net Changes in External Reserves | | 90 | |
| F. BALANCE OF PAYMENTS ACCOUNTING BALANCE | (800) | (800) | (0) |

In Table 3, the six accounts are numbered from 1 to 6, whereas the major BOP concepts are serialized as A, B, C, D, E and F. Using this table as the basis we shall now study the BOP concepts.

11.3 Meaning of Balance of Trade

Balance of trade may be defined as the difference between the value of goods and services sold to foreigners by the residents and firms of the home country and the value of goods and services purchased by them from foreigners. In other words, the difference between the value of goods and services exported and imported by a country is the measure of balance of trade. If the two sums (1) value of exports of goods and services, and (2) value of imports of goods and services are exactly equal to each other, we say that there is balance of trade equilibrium or balance; if the former exceeds the latter, we say that there is balance of trade surplus; and if the latter exceeds the former, then we describe the situation as one of balance of trade deficit. Surplus is regarded as favourable and deficit as unfavourable. In Table 3, there is a balance of trade deficit equal to \$130 million.

The readers are warned about the use of terminology. The balance of trade definition adopted above, is that of James E. Meade — a Nobel Prize British economist, W.M. Scammel also prefers to adopt Meade's definition of balance of trade. But some writers however define balance of trade as the difference between the value of merchandise (or goods) exports and the value of merchandise (or goods) imports, making it the same as the 'good balance' or the 'balance of merchandise trade'. There is no doubt that the balance of merchandise trade is of great significance to the exporting country; but of still greater significance is the balance of trade defined in Meade's sense (*i.e.* to lump goods and services balance together). In the familiar macro-economic equation $y = C + I + G + (X - M)$, the expression Net Exports (or $X - M$) denotes the balance of trade in Meade's sense. Balance of trade is a national income injection and for that reason, it is better to use Meade's concept of balance of trade. Equating balance of trade with goods balance alone is to ignore the importance of service balance as a factor in determining national income.

In case of countries like Malaysia, goods balance is always favourable but service balance is always unfavourable. According to Meade's definition of balance of trade, Malaysia will have a consistent balance of trade deficit; but if we use the other (and more commonly used) definition of balance of trade (synonymous with goods balance alone) then Malaysia's balance of trade will be one of consistent surpluses. Malaysian government itself uses this more commonly used definition of balance of trade and not the one given by Meade. In our Table 3 we have balance of trade surplus of \$20 million using the more commonly used definition of trade balance; but if we adopt Meade's definition, there is a balance of trade deficit of \$130 million. If any case, before coming to any conclusions on balance of trade surpluses and deficits in a given country, we must first make sure what definition of balance of trade is adopted in that country.

Regardless of which definition is adopted one thing is certain, *viz.* that balance of trade is a national income injection; and hence it is appropriate to regard an active balance (*i.e.* an excess of credits over debits) as a desirable state of affairs. Should this then be taken to imply that a passive trade balance

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(i.e. an excess of debits over credits) is necessarily a sign of undesirable state of affairs in a country? The answer is “no”. Because, take for example, the case of a developing country, which might be importing vast quantities of capital goods and technology to build a strong agricultural or industrial base. Such a country in the course of doing that might be forced to experience passive (or adverse) trade balance, and such a situation of passive trade balance cannot be described as one of undesirable state of affairs. This would therefore again suggest that before drawing meaningful inferences as to whether passive trade balance is a desirable or an undesirable state of affairs for a country, we must also know the composition of imports which are causing conditions of adverse trade balance for that country. At any rate, the importance of trade balance in any country’s BOP can hardly be exaggerated.

Balance of Payments on Current Account

This is a broader concept than the concept of balance of trade. Balance of Payments on Current Account includes the sum of three balances *viz.* Merchandise balance, service balance and unilateral transfers balance. In other words, it comprises of trade balance (in Meade’s sense) and transfers balance. In Table 3 the positive unilateral transfers balance of \$180 million is added on to the negative trade balance of \$130 million which will give us a current account BOP surplus of \$50 million.

Balance of Payments on Current Account is also referred to as Net Foreign Investment because the sum represents the contribution of foreign trade to GNP.

It is also worth remembering that BOP on Current Account covers all the receipts on account of earnings (or opposed to borrowings) and all the payments arising out of spendings (as opposed to lendings). There is no reverse flow entailed in the BOP current account transactions. This is in sharp contrast to the balance of payments on Capital Account which we will see below.

Balance of Payments on Capital Account

For a long time, economists had assumed that factors of production do not move across international boundaries; the classical economists built models of trade assuming that only goods and services move across international boundaries. International capital movements viewed in that light, were an impossibility. Perhaps, for this reason, we do not have a well developed theory of international capital movement, although, as we have seen in previous chapters, we have well advanced theories of international trade in goods and services (*e.g.* Comparative Advantage Models, Heckscher-Ohlin model, demand reversal, factor-intensity reversal, Leontief Paradox and a whole lot of the so-called “New” theories of international trade). However, this is no occasion to discuss the theory of international capital flows. Theory or no theory, international capital movements in and out of countries are a fact of life and very much a reality in today’s world. With so many multinational banks, transnational corporations with their giant global operations, inter-governmental aid, grants and loans and international institutional arrangements for borrowing and lending of money between the countries of the world, the international capital and investment flows across nations have reached unprecedented proportions, especially after World War II period. Less developed countries are the net recipients of foreign capital and investment and some see it as an opportunity for these countries to maximize their rate of growth and minimize their balance of payments hardships. The radical political economists consider this trend to be potentially dangerous to the LDCs, because (a) it will subject the economies of the poor Third World nations to economic imperialism by the Western Capitalist countries and (b) the mounting foreign debt of these Third World countries keeps compelling them to borrow still more in order to repay the debt resulting not in less debt but more debt as the years go by. They will be, therefore, perpetually “dependent” on borrowings from foreign sources. Be that as it may!!

Returning to the question of BOP accounting procedure, all the transactions involving inward or outward movement of capital and investment (be it long term or short term, direct or portfolio, private or government, individual or institutional, tied or untied, interest bearing or non-interest bearing, soft or hard) are included in the Capital Account of the BOP of the reporting country. In simple terms, the BOP Capital Account comprises of the Long-Term and Short-Term Capital Accounts. In Table 3, the Capital Account balance shows a net surplus of \$40 million (see item numbers 4 and 5 and item D in the Table).

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It is useful to understand the broad trends and implications of Capital Account transactions in the BOP of countries of the World. Developed Countries (DCs) are the net exporters of capital and investment and the less developed countries (LDCs) are the net borrowers of foreign capital and investment. From that it follows obviously that the DCs would experience deficits (or adverse trends) in their BOP capital accounts; the LDCs, on the other hand, would “enjoy” capital account surpluses in their BOP. The questions that arise here are : Is this capital account surplus good ? And is this capital account deficit bad for the countries ? The answers are somewhat as follows :

LDCs are net borrowers of foreign capital and recipients of foreign investment, and to that extent they would “enjoy” favourable BOP trends. This is undoubtedly true. But sooner or later this foreign capital and investment will leave the LDCs and go back. Whether they do or do not go back to their home country, what is most certainly true is, that the returns on that capital and investment in the form of profits, interest, dividends and royalties would be repatriated from the “host” countries to the “home” countries (in this case from LDCs to DCs). And this sum would create deficit tendencies in the Current Account of the BOP of the LDCs concerned. In other words, capital account surplus of the present year will create current account deficits of a potential nature (in the form of investment income outflows) for the years ahead. In that sense, the country which “enjoys” a capital account surplus today must get ready to “suffer” a current account deficit in future. The prognosis is entirely correct but it may not result in a nightmare. Because by making productive use of foreign capital and investment and increasing both the GNP and export capacity the LDC can avoid future BOP deficits on current account *i.e.* they can offset investment income outflows and capital repatriation by increasing merchandise exports as well as service exports. It does not, therefore, necessarily follow that a capital account surplus today is a sure sign of current account deficit tomorrow (or in 10 years from now). It much depends on the manner in which foreign capital and investment are put to use in the receiving country. If they are put to unproductive use resulting in no expansion of real output of goods and services, then of course, it would be true to say that today’s capital account surplus is tomorrow’s current account deficit.

The countries which “suffer” capital account deficit today need not worry because it will automatically result in BOP current account surpluses (arising out of investment income inflows) at a future date. Today’s deficit (in capital account) is truly tomorrow’s surplus (in current account). There can be little doubt in saying so. Only in the unlikely events where no investment income inflow ever materialized (due to losses on investment) or permitted to materialize (due to host country government’s radical policies like expropriation, nationalization etc.) would it be possible to argue that today’s capital account surplus is no guarantee of tomorrow’s current account surplus?

However, the significance of BOP deficits and surpluses arising out of transactions in capital account can, therefore, be seen only with a time perspective and future prospects clearly in mind. Only then, can the significance of capital account in the BOP be fully understood.

Basic Balance

This is a relatively straightforward and simple concept. Basic balance in the BOP comprises of the BOP on current account plus long-term capital account. The short term capital account balance is not included in the basic balance. This is perhaps for two main reasons — (a) short term capital movements, unlike long-term capital flows, are relatively volatile and unpredictable. They move in and out of a country in a period of less than a year or even sooner than that. It would, therefore, be improper to treat short term capital movements on the same footing as current account BOP transactions which are extremely durable in nature. Long-term capital flows are relatively more durable and, therefore, they qualify to be treated along side the current account transactions to constitute basic balance, (b) in many cases countries do not have a separate short term capital account for reasons discussed earlier in this chapter; in these countries, short term capital transactions constitute a part of the “Errors & Omissions Account”. Hence the justification in excluding short term capital flows from the definition of “Basic Balance”.

An active basic balance is a good sign and a passive basic balance is a bad sign for the reporting country’s overall BOP picture.

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Overall Balance of Payments

This is a sum of balance on Current Account and on Capital Account put together. It includes all international monetary transactions of the reporting country *vis-a-vis* the rest of the world. It is highly aggregative, and like any other highly aggregated variables, the concept (or the sums entered as credit and debit under this item) cannot be of much significance. Because, the aggregate credit and debit figures do not reveal the behaviour of change of the components which constitute the aggregate. Take for instance, the question of surplus and deficit. Can we say that a surplus in the overall balance of payments is a good sign *or* a deficit in the overall balance of payments is a bad sign? We cannot give sensible answers to these questions simply by reading the entries in the credit and debit columns of the overall BOP row. We must not only know the *extent* of BOP overall surplus or deficit but also the *location* of those surpluses or deficits. The answers can then be given something like these:

- (i) If the overall surplus in the BOP was caused by current account surpluses but not capital account surpluses, then the surplus may be a good sign for the country.
- (ii) If the overall deficit in the BOP was caused by current account deficits rather than capital account deficits, then the deficit may be considered as a bad sign for the reporting country.

In other words, if there is an overall surplus, we will have to first locate whether the surplus originated in current account or capital account or both. The same will have to be done in case of a deficit in the overall BOP. Therefore, the overall BOP figures by themselves, whether they indicate a surplus or a deficit, do not reveal the real situation. For this reason not much economic significance can be attached to the overall BOP concept. The current and capital account breakdown is very useful and significant.

Accounting Balance of Payments

The overall BOP entries (item E) in our Table 3 show a net surplus of \$90 million (total credits of \$800 million *minus* total debits of \$710 million arising out of all the transactions in the five BOP accounts above). This sum of \$90 million surplus is entered into the International Liquidity (debit) Account. The rationale behind this entry in the debit column is that, this sum of \$90 million constitutes disposal of that BOP surplus in any of the following ways (a) purchase or import of gold worth \$90 million; or (b) adding to the country's stock of foreign exchange reserves of \$90 million for future use; or (c) extending short term loan of \$90 million to other needy countries or buying some foreign income-earning short term assets. There may even be some combination of (a), (b) and (c) as well. In any case International Liquidity Account debit entry indicates a surplus in the overall BOP and the way it is settled in or the other of the three methods states just above.

Having done that in the International Liquidity Account (item 6 in Table 3), what we then notice in the Accounting BOP column (item F in Table 3) is an exact equality in the BOP debit and credit entries to give us an accounting balance. Notice that the balance of payments must always balance in the accounting or book-keeping sense. This is because for any surplus (or deficit) in the overall BOP (item E in Table 3) there must be a corresponding debit (or credit) entry of the equivalent amount in the International Liquidity Account such that the total credits and debits in the Accounting BOP item must show an exact equality. Regardless of whether the country has an actual surplus or a deficit in its overall BOP, there can be no surplus or a deficit in any country's balance of payments in the accounting sense. In other words, the balance of payments in the accounting sense is consistent with the surplus or deficit which the country may have. International Liquidity Account cancels all the surplus or the deficit in the BOP to give a zero accounting surplus or the deficit. Since "balance of payments must always balance" there can, therefore, be no 'imbalance' in the BOP. Then what is the meaning of 'deficit' and 'surplus' in balance of payments? If there can be no 'imbalance' then what is the meaning of 'disequilibrium' in the BOP? Why do countries talk and worry about BOP 'adjustment' and BOP 'settlement'? Now we will turn our attention to these and other related questions and distinctions.

11.4 Autonomous and Accommodating Transactions

A distinction is made between the autonomous and the accommodating *or* above the Line and below the Line transactions in the BOP. The distinction is useful to define the concepts of 'deficit' and 'surplus' in the BOP.

Autonomous or above the Line transactions are those that “take place regardless of the size of other items in the balance of payments”. Take, for example, the export of goods to a foreign buyer. It is an ‘initiating’ or an ‘autonomous’ transaction and its value results in payments by foreigners to the home country, which is entered as a credit item. When the home country borrows \$100 million from the World Bank to construct a highway, the sum of \$100 million is credited into the Long Term Capital Account of the home country. If the foreign multinational corporations repatriate \$300 million of their profits (earned from their investment operations in our country) to their country of origin, then we enter \$300 million into our BOP Service Account as investment income outflow or capital service debit item. If India receives \$50 million from the United States as aid for the famine-stricken people in India, then the amount of \$50 million is entered as credit into India’s Unilateral Transfer BOP Account. All these transactions which take place either in the goods account, or the services account, or the unilateral transfer account or the long term and short term capital account of a country are considered as ‘autonomous’ or ‘above the line’ transactions. They arise out of autonomous economic activities as credit or debit transactions, and these transactions take place regardless or independent of balance of payments situation.

The ‘accommodating’ or ‘below the line’ transactions, on the other hand, take place on account of, or due to, balance of payments situation of a country. They are the *result* of balance of payments situation, whereas the ‘autonomous’ transactions are the *cause* of balance of payments situation. Take for example, gold exports or foreign borrowings. Suppose South Africa, a gold exporting country, exports \$800 million worth of gold as a commodity export, then these \$800 million export proceeds are entered as credit in that country’s merchandise account. Here gold is exported as an autonomous activity or as a current account transaction. This activity *causes* foreign exchange earnings and thereby *determines* the BOP situation for the country (note that it is not determined by the BOP situation of the country).

On the other hand, if India (which is not a gold exporting country) is forced to export gold worth \$400 million to settle its balance of payments deficits, then we say that this gold export is not an ‘autonomous’ but an ‘accommodating’ transaction undertaken exclusively with a view to solve its BOP problem. Here, the gold export is the result of BOP situation and not its cause. This ‘accommodating’ gold export transaction is entered into India’s BOP International Liquidity Account as a credit item. Another example would be, where a country has borrowed from abroad. If Malaysia has borrowed \$700 million with a view to construct its East West Highway from the World Bank, it is an ‘autonomous’ transaction, and it is entered into Malaysia Long Term Capital Account as a credit entry. But if Malaysia has borrowed a sum of \$700 million from the World agencies to settle its BOP deficit, then it is treated as an ‘accommodating’ transaction and ‘entered into the country’s International Liquidity Account as a credit item.

In brief, all credit and debit entries in the BOP current and capital accounts are regarded as ‘autonomous’ or ‘above the line’ transactions; and all the credit and debit entries in the International Liquidity Account are to be regarded as ‘accommodating’ or ‘below the line transactions’. The distinction between ‘autonomous’ and ‘accommodating’ transactions lies in the questions whether the transactions have *caused* the BOP situation or whether the transaction has been *caused by* the BOP situation.

The distinction between the ‘autonomous’ and ‘accommodating’ transactions looks very clear cut from what has been said above. But the distinction may sometimes be not all that cut and dry. For instance, if Malaysia exports \$500 million worth of rubber, we take it as an ‘autonomous’ export transaction and treat it as now having been caused by the country’s BOP situation. But it may be possible that Malaysia exported this \$500 million worth of rubber to *avoid causing* a BOP problem. In this case, this transaction has been undertaken *due to* BOP considerations and not *regardless* of BOP considerations. The subtlety lies in the question whether this export transaction was undertaken regardless of BOP considerations or whether it was undertaken with BOP considerations in mind (*i.e.*, to avoid a possible BOP deficit problem). This raises the question of short term and long term motives behind all BOP transactions of a country, and the problems of identifying transactions as ‘autonomous’ or ‘accommodating’ become extremely hard to handle. For accounting purposes, it is reasonable to treat all current and capital account transactions as ‘autonomous’ or ‘above the line’; and all the entries in the International Liquidity Account as ‘accommodating’ or ‘below the line’

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transactions. Accommodating transactions are undertaken for the deliberate (or explicit) purpose of financing any imbalance in autonomous transactions.

Now, we are in a position to define BOP 'deficit' and 'surplus'. A 'deficit' in the BOP occurs when the autonomous payments (debits) exceed the value of autonomous receipts (credits); and a 'surplus' results when the autonomous credit receipts exceed the autonomous debit payments. If the two sums, autonomous receipts and payments, are equal, we have an 'equilibrium' in the BOP. Alternatively, the sum of accommodating transaction entered as credit in the International Liquidity Account is the measure of 'deficit' in the BOP, while a similar entry in the debit column of that account, is the measure of 'surplus' in the BOP. If, however, the International Liquidity Account shows entry of a zero sum as credit or as debit, then there would be 'equilibrium' in the BOP of a country. A 'deficit' in the BOP is considered, as negative or unfavourable or adverse BOP situation for the reporting country; and a 'surplus' in the BOP is considered as positive, favourable or active BOP situation of the country. BOP 'equilibrium' is considered as the desirable external economic state of affairs for any country. It should be remembered that 'balance' (or 'imbalance') in the BOP is different from 'equilibrium' (or 'disequilibrium') in the BOP of a country. Strictly speaking, 'balance' is an accounting balance and it must be there all the time for any country; 'equilibrium', on the other hand, can be there only when the autonomous credit receipts equal autonomous debit payments. 'Equilibrium' is an economically meaningful concept, whereas 'balance' is only an accounting or a book keeping term. In common parlance the word BOP 'balance' is used interchangeably with the term BOP 'equilibrium', but the difference between the two terms must be borne in mind. Similarly, the 'imbalance' is used interchangeably with 'disequilibrium' in the BOP. Here again, strictly speaking, there can never be an 'imbalance' in the accounting or book-keeping sense. 'Disequilibrium' is possible when there is either a BOP deficit or a surplus. The more meaningful expressions would be BOP 'equilibrium' or 'disequilibrium' rather than BOP 'balance' or 'imbalance'.

This brings us now to the question whether 'deficit' in the BOP is always bad and a 'surplus' in the BOP always good as it is commonly suggested. While treating 'disequilibrium' in BOP as undesirable, we generally tend to associate 'disequilibrium' only with a 'deficit'. We, generally, consider BOP 'surplus' as good and, therefore, we do not identify 'surplus' with 'disequilibrium' *i.e.* something that is as undesirable as deficit. As a matter of fact it can be argued that if 'surplus' is good, then 'deficit' could also be good in certain circumstances; and if 'deficit' is bad, then 'surplus' could as well be bad for many reasons. The full significance of all these can be understood only when we understand the two aspects of the BOP disequilibrium : *viz.* its *location*, and its *duration*.

First, consider the aspect of *location*. A surplus in the current account should be treated as generally favourable but a surplus in the capital account may not necessarily be a good sign, because the former (*i.e.* current account surplus) is a sign of earning capacity whereas the latter (*i.e.* capital account surplus) only indicates a capacity to borrow. Borrowings, unlike earnings, entail commitments to repay at some future date. We also know that it is better to earn rather than borrow and 'enjoy' a current account surplus rather than a capital account surplus. Under some circumstances borrowing may be good as well. If, for instance, a country has borrowed \$100 million to invest in some useful project, then such a borrowing is productive, because it will result sooner or later in both the GNP increase and the increase in repaying capacity. The borrowing in that case has been self-liquidating and GNP increasing as well. Viewed in this sense, BOP capital account surpluses may be good. It would be tedious and unnecessary to spell out the practical implications of having BOP capital account surpluses and using that surplus for unproductive consumption (or investment) which results neither in the GNP expansion nor in repaying capacity for the country.

Similarly, for the 'deficit' case. A current account deficit indicates spendings in excess of earnings with its obvious implications, while a capital account deficit would mean that the nation is undertaking net foreign lendings. A mature creditor country like the United States would be incurring such capital account deficits in BOP. Its effects on the US *present* BOP situation may be unfavourable; but sooner or later, when the money that is lent out begins to come back together with the returns on that foreign lending in the form of interest, profits, dividends etc., then it will produce favourable effects on the US BOP in *future*.

Boardly, certain BOP principles can be laid down with global perspectives in mind (a) current and capital accounts with similar signs are both undesirable; they tend to aggravate problems of international liquidity and hamper growth of world trade, (b) the correct behaviour for a country with a surplus on current account is to lend abroad and run deficits on capital account.

The second aspect of BOP deficit or surplus is its *duration*. If the deficit in the BOP, regardless of its location, is of a temporary nature, say on account of export crop failure, or political events which might have led to temporary capital flight, then such a transient effect on the BOP may not be a cause of serious concern. If the BOP deficit is fundamental or persistent, especially arising out of current disequilibrium, such a prolonged deficit is bad. It is suggestive of some structural disequilibrium which calls for corrective action. Current account deficits of short term duration can be handled by short term or long term foreign borrowings. But the current account deficits which are repeated year after year cannot and should not be financed by foreign borrowings alone. In the final analysis, exports have to pay for imports and it would be necessary to reverse the current account surpluses, like persistent current account deficits, need to be given close scrutiny, because over the years they increase foreign indebtedness and make the country's BOP situation extremely vulnerable. In short, if the deficits or surpluses in current or capital account are of a temporary nature, they do not constitute a problem; but if they become persistent, they need corrective policy action.

Now let us come to the normative judgement issues on 'deficit' and 'surplus' questions in current account. Generally it is believed that current account deficits are bad and surpluses are good. It is easy to see how deficits in current account are bad, especially when the deficits are prolonged and lingering. What about current account surpluses? Are they unquestioningly good for a country? Here again one may readily agree that occasional or temporary surpluses are good, and especially so, if these surpluses are essential (a) to offset capital account deficits or (b) to offset investment income outflows or to pay off old debts. If, on the other hand, a country is running persistent surpluses in its current account, not offset by capital account deficits, it will run several risks: (a) accumulation of foreign (official) reserves by the country's monetary authority; which leads to expansion in money supply and domestic inflationary price upsurge or (b) exchange rate appreciation which would in turn make the country's exports less competitive in the world market; which leads to import expansion and export contraction. The precise nature of the result depends of course on the country's exchange rate policy, monetary and fiscal policy and exchange controls policy. In any case, persistent surpluses in the BOP do not necessarily produce healthy effects on the economy. It is necessary to realize that if BOP deficits are not good, so is the case with BOP surpluses. BOP 'disequilibrium' denoting as it does, something undesirable, applies equally to 'deficits' and 'surpluses' alike, although deficits pose a more serious threat and a more difficult challenge than the BOP surpluses.

Balance of Payments Settlement and Adjustment

A distinction is made between BOP *settlement* and BOP *adjustment* and this distinction can be understood if we proceed as follows. Suppose, we have a deficit (or a surplus) in the current and capital accounts of our country's BOP, then we can "settle" this deficit (or surplus) arising out of imbalance in the autonomous transactions by accommodating payments (or accommodating receipts in case of a surplus) so as to produce a BOP balance in the accounting sense. In this case, therefore, what we have undertaken, is a process of BOP *settlement*. We have, in this case, merely and temporarily overcome the BOP problem with the help of necessary accommodating transactions. The fire, so to speak, has been extinguished but the house is still not reconstructed. If, on the other hand, we control the deficit (or surplus) by controlling the forces which were causing this deficit (or surplus) then we have undertaken what may be called as BOP *adjustment*. BOP adjustment is said to have taken place only when we have produced 'balance' in autonomous transactions *i.e.* when autonomous credit receipts are equal to autonomous debit payments. In brief, when accounting balance is produced with the help of accommodating transactions there is said to be BOP settlement; and when this balance is produced without the help of accommodating transactions, there is said to be BOP adjustment. Adjustment is more desirable and more difficult than settlement.

Notes

'Full Employment' Equilibrium or 'True' Balance

Finally, a word on what is called 'full employment' equilibrium or 'true' balance in BOP. We have already seen that when the sum of accommodating transactions is zero, there is 'equilibrium' in the balance of payments (as well as a 'balance' in BOP). It is, however, possible that such an 'equilibrium' has been produced by (a) imposing trade and payment restrictions such as import tariffs, import quotas, export duties, restrictions on foreign travel, exchange controls, exchange rate support policies and other monetary and fiscal policy applications; and (b) by causing internal imbalance *i.e.* by causing inflation, or unemployment in the economy. If the BOP 'equilibrium' is produced by causing (a) or (b) or both, then it is not to be considered as 'true' balance or 'full employment' equilibrium.

If, on the other hand, equilibrium in the BOP is produced without (a) using commercial policy and (b) causing inflationary or deflationary gaps in the GNP of the country, then what we have is a 'true' balance or 'full employment' equilibrium in the BOP. As such, 'full employment' equilibrium or 'true' balance is inconsistent with the existence of commercial policy and internal imbalance (defined as presence of inflation or unemployment). Ragnar Nurkse and James E. Meade, have introduced this concept of 'full employment' equilibrium or 'true' balance. In their terminology, 'external balance' must be consistent with 'internal balance' on the one hand and 'free trade' in goods and services and factor flows on the other.

Balance of Payments and Economic Policy

Before going into this question, a word of caution must be inserted at the very outset. National accounting system is not completely standardized among countries; different countries use different systems. This is reflected also in the construction of balance of payments. There is agreement on the broad features, but differences in detail do exist. Our aim is to understand how basic questions of economic analysis and policy can be elucidated by the use of BOP statistics and to gauge what factors one has to take into account to be able to interpret a country's BOP situation in any meaningful sense.

Having understood the sense in which the BOP is always in 'balance' and the sense in which the BOP might be in 'disequilibrium' one can talk about suggested economic policy in relation to a given BOP situation of a country. For example, if a country has a deficit and an accommodating capital inflow, it must in general try to implement policy measures aimed at reducing the deficit; but a country with a surplus in its BOP and an accommodating capital outflow need not take immediate measures. Because surpluses do not usually create great problems, so we are not specially concerned with surplus countries. For economic policy purposes one is specially concerned with BOP problems of deficit countries.

To understand the nature of a deficit, one has to judge it against the background of the general economic policy of a country and the policy options, the country has at its disposal. If a country is already pursuing a tight monetary and fiscal policy and has tariffs and import controls, but yet it has a serious deficit, it may be very difficult for such a country to get rid of a deficit. We can then talk about *actual* and *potential* deficits. The actual deficit which has appeared on the surface is in that case, much smaller than the potential deficit that could have surfaced but has indeed been suppressed by tight domestic and foreign trade economic policies of the country. The possibility or scope of pursuing a more restrictive policy to close the actual deficit may no longer exist for a country, because it already has reached its upper limit. Furthermore, if the economy is already experiencing politically unacceptable levels of high unemployment, it will be almost impossible to try to cut down BOP deficits by pursuing still contractionary monetary, fiscal and other policies. In such tight situations only international capital flows can play a vital role in equilibrating the BOP. Once again the nature of capital flows is very crucial. We have already said that accommodating capital inflows, especially, if they are continued over several years, are a sure warning signal. It is left to the ingenuity of the country's planners and policy makers to adopt ways and means of converting accommodating capital imports of short-term nature into planned long term autonomous capital imports. If that can be done, the country need not change its economic policy. It can proceed without having to worry about the BOP situation for the next 15-20 years. We shall return to these policy-oriented questions concerning BOP later in the other chapters; but in the following chapters let us study the relation between foreign trade and the national economy.

Self- Assessment**Notes****1. Choose the correct option:**

- (i) A nation's balance of trade is equal to its exports less its imports of
 - (a) goods
 - (b) goods and services
 - (c) financial assets
 - (d) official reserves
- (ii) A nation's balance on the current account is equal to its exports less its imports of
 - (a) goods and services
 - (b) goods and services, plus Canadian purchases of assets abroad
 - (c) goods and services, plus net investment income and net transfers
 - (d) goods and services, minus foreign purchases of assets in Canada
- (iii) The net investment income of Canada in its international balance of payment is the
 - (a) interest income it receives from foreign residents
 - (b) dividends it receives from foreign residents
 - (c) excess of interest and dividends it receives from foreign residents over what it paid to them
 - (d) excess of public and private transfer payments it receives from foreign residents over what it paid to them
- (iv) A nation may be able to correct or eliminate a persistent (long-term) balance of payments deficit by
 - (a) lowering the barriers on imported goods
 - (b) reducing the international value of its currency
 - (c) expanding its national income
 - (d) reducing its official reserves
- (v) If exchange rates float freely, the exchange rate for any currency is determined by the
 - (a) demand for it
 - (b) supply of it
 - (c) demand for and the supply of it
 - (d) official reserves that back it
- (vi) If a nation had a balance of payments surplus and exchange rates floated freely, the foreign exchange rate for its currency would
 - (a) rise, its exports would increase, and its imports would decrease
 - (b) rise, its exports would decrease, and its imports would increase
 - (c) fall, its exports would increase, and its imports would decrease
 - (d) fall, its exports would decrease, and its imports would increase

11.5 Summary

- The BOP is one of the oldest and the most important statistical statement for any country, especially the more open economies. Put in a nutshell the BOP of any country is “a systematic record of all economic transactions between the residents of a given country and of the residents of the rest of the world in an accounting period (*viz.* a year).” The system of BOP accounting, some of the concepts and terminologies used in the BOP expression and the interpretation of the BOP categories are of utmost importance to any student of international economics.
- The BOP transactions include all the foreign receipts of and payments by a country during a given year. The receipts include all the earnings and borrowings of foreign exchange, and they are recorded as credit items. The payments include all the spending and lendings of foreign

Notes

exchange, and they are recorded as debit items.

- The sixth and final BOP account is the *International Liquidity Account* which simply records net changes in foreign reserves. Essentially this account lists internationally acceptable means of settling international obligations.
- Balance of trade may be defined as the difference between the value of goods and services sold to foreigners by the residents and firms of the home country and the value of goods and services purchased by them from foreigners. In other words, the difference between the value of goods and services exported and imported by a country is the measure of balance of trade. If the two sums (1) value of exports of goods and services, and (2) value of imports of goods and services are exactly equal to each other, we say that there is balance of trade equilibrium or balance; if the former exceeds the latter, we say that there is balance of trade surplus; and if the latter exceeds the former, then we describe the situation as one of balance of trade deficit. Surplus is regarded as favourable and deficit as unfavourable. In Table 3, there is a balance of trade deficit equal to \$130 million.
- For a long time, economists had assumed that factors of production do not move across international boundaries; the classical economists built models of trade assuming that only goods and services move across international boundaries. International capital movements viewed in that light, were an impossibility.
- This is a sum of balance on Current Account and on Capital Account put together. It includes all international monetary transactions of the reporting country *vis-a-vis* the rest of the world. It is highly aggregative, and like any other highly aggregated variables, the concept (or the sums entered as credit and debit under this item) cannot be of much significance.
- A distinction is made between the autonomous and the accommodating *or* above the Line and below the Line transactions in the BOP. The distinction is useful to define the concepts of 'deficit' and 'surplus' in the BOP.
- Autonomous or above the Line transactions are those that "take place regardless of the size of other items in the balance of payments". Take, for example, the export of goods to a foreign buyer. It is an 'initiating' or an 'autonomous' transaction and its value results in payments by foreigners to the home country, which is entered as a credit item.
- The distinction between the 'autonomous' and 'accommodating' transactions looks very clear cut from what has been said above. But the distinction may sometimes be not all that cut and dry. For instance, if Malaysia exports \$500 million worth of rubber, we take it as an 'autonomous' export transaction and treat it as now having been caused by the country's BOP situation.

11.6 Key-Words

1. Balance of Payment : A record of all transactions made between one particular country and all other countries during a specified period of time. BOP compares the dollar difference of the amount of exports and imports, including all financial exports and imports. A negative balance of payments means that more money is flowing out of the country than coming in, and vice versa.
2. Unilateral transfer : An economic transactions between residents of two nations over a stipulated period of time, usually a calendar year. Typically, these transactions consist of gift exchanges, pension payments and the like, but they can encompass other goods and services as well.

11.7 Review Questions

1. What is the balance of payment? Discuss.
2. Discuss the components of Balance of payments .
3. Distinguish between long- term and short -term account.
4. Explain the meaning of balance of trade.

Answers: Self-Assessment

Notes

1. (i) (a) (ii) (c) (iii) (c) (iv) (b) (v) (c)
(vi) (b)

11.8 Further Readings



1. Adapted, with slight modifications, from the definition given in the International Monetary Fund *Balance of Payments Manual*, 2nd edn., January 1950, p. 1.
2. Leland B. Yeager, *International Monetary Relations* (New York : Harper & Row, 1966), p. 36.
3. J.E. Meade, *The Theory of International Economic Policy, Vol. I : The Balance of Payments*, (1951) p. 7. See also Yeager, *op. cit.*, p. 452.
4. W.M. Scammel, *International Trade and Payments* (Toronto : The Macmillan Company, 1974) p. 272.
5. J.E. Meade, *op. cit.*, p. 11.

Unit 12 : Equilibrium and Disequilibrium in BOP

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Objectives

After reading this Unit students will be able to:

- Explain Equilibrium of Balance of Payments.
- Describe Disequilibrium in Balance of Payments.

Introduction

The main purpose of this unit is to arrive at definitions of balance of payments equilibrium sufficiently precise to furnish policy-makers with meaningful guides. Recent Australian and New Zealand experience, of relaxations in exchange controls followed by tighter controls and of experimental monetary techniques, suggest an imperfect understanding not only of the concepts of equilibrium and reserve adequacy but also of measures most suited to attain these ends. A restatement of the factors involved in defining these concepts together with an appraisal of remedial measures for a balance of payments disequilibrium is considered appropriate.

Disequilibrium in the balance, of payments can arise due to persistently one sided movement of one or more than one trading terms. If, for instance, the total value of goods exported exceeds the total value of the goods imported over a given period and this surplus is not offset by the debit balance on invisible item, the country will have favorable balance of payments. Disequilibrium in the balance arises when exports of a country fall short of imports because of decrease in production at home, due to stiffer competition abroad or of an appreciation in the currency or fall of purchasing power of the buyers in the foreign market.

When the imports remain unaffected or increase, then the country will also face deficit in her balance on invisible items, the country will have disequilibrium in her balance of payments. Disequilibrium in her balance of payments can also arise over a given period due to excessive imports not equalized by exports of invisible items and if it is not offset by credit balance on visible items, the country will face disequilibrium in her balance of payments.

12.1 Equilibrium of Balance of Payments

Definition and Explanation

“The **equilibrium of balance of international payment** is a statement that takes into account the debits and credits of a country on international account during a calendar year”.

When a country has unfavorable or adverse balance of payments, it is regarded as herald of disaster because the country by having deficit in her balance of payments either decreases her balances abroad or increases her foreign debits. When it has favorable credit balance, it is considered that the country

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is heading towards prosperity because by having surpluses, it either increases her foreign credits or reduces her foreign debits.

There is no doubt that a study of country's balance of payment reveals much information about its economic position and development of the country. But when we are to see that a country is heading towards financial bankruptcy or higher standard of living, we are to examine the balance of payments of many years of that country.

A persistent deficit in the balance of payments on current account certainly leads to economic and financial bankruptcy. A continued favorable balance on current account is also disadvantageous because it creates difficulties for other countries. The credit country may utilize her surplus in advancing short or long term loans to the debtor country. But if it gives no opportunity to the debtor country to repay the loan by exporting more, then how can the loans be realized ?

The hard earned surplus of the credit country will then one day be turned into gifts and this may create political difficulties for the creditor country. We have seen, thus that a country should neither have unfavorable nor favorable balance of payment on current account in perpetuity. It must obtain equilibrium in her balance of payments over a reasonable period of time. From this it may not be concluded that a country should balance her account every year with every country with which it has trade relations.

Balance of payments equilibrium occurs when induced balance of payments transactions---those engineered by the government to influence the nominal exchange rate---are zero. This implies that autonomous receipts from exports and the sale of securities abroad equal autonomous payments for imports and the purchase of securities from foreign residents. Since changes in the stock of official reserves of foreign exchange are the method used by the authorities to fix or otherwise manipulate the exchange rate, balance of payments equilibrium requires that the stock of foreign exchange reserves be constant.

Induced transactions are frequent when the exchange rate is fixed---only by chance will autonomous receipts and payments balance. They can also occur when the exchange rate is flexible and the authorities want to influence its movement. But we will concentrate primarily on the fixed exchange rate case here.



Notes

A country may have favorable balance of payment with one country and unfavorable with another but in the long run it must balance her account. The total liabilities and total assets of all nations related to one currency block must balance over a reasonable period of time.

The condition of asset equilibrium---the LM equation---can be presented as the equality of the demand and supply of nominal money balances as follows :

$$1. \quad M = mm H = mm (R + Dsc) = P [\gamma - \theta(r^* + \tau) + \varepsilon Y]$$

where Y is real income, P is the price level, r^* is the real interest rate determined by conditions in the rest of the world, τ is the expected rate of inflation, mm is the money multiplier, R is the stock of official foreign exchange reserves, which can be thought of as the foreign source component of the stock of base money and Dsc is the domestic source component of the stock of base money H. The above equation can be manipulated to present the equilibrium stock of high powered or base money as

$$2. \quad H = R + Dsc = (P / mm) [\gamma - \theta(r^* + \tau) + \varepsilon Y]$$

which can be further rearranged to move the stock of foreign exchange reserves R to the left side.

Notes

$$3. \quad R = (1 / mm) P[\gamma - \theta(r^* + \tau) + \varepsilon Y] - Dsc$$

An increase in the demand for money, given by the P times the expression in the square brackets [...], leads to an increase in the stock of official foreign exchange reserves as the authorities act to maintain the fixed exchange rate. A reduction in the money multiplier increases the stock of base money required to support the existing quantity of money, requiring an increase in the stock of reserves to provide the additional base money demanded. An increase in Dsc leads to an equal decline in the stock of foreign exchange reserves as the authorities are forced to keep the stock of money unchanged at its desired level to maintain the exchange rate parity.

The authorities are forced to maintain a stock of reserves that will provide domestic residents with their desired money holdings, given the domestic source component. This implies that the commercial banks and the public will have their desired stock of base money. It also means that the authorities can effectively control the stock of official foreign exchange reserves by manipulating the domestic source component---such changes in the stock of reserves can be brought about at no cost in terms of price level changes, or output and employment changes when the price level is fixed. As you should have learned in the previous two lessons, output, income and prices are determined by the conditions of flow equilibrium.

It is evident from Equation 3 above that we must distinguish between two types of balance of payments disequilibria---stock and flow. A one-shot adjustment of the domestic source component or shift in the demand for base money holdings at a moment in time will lead to a shift in the stock of official reserves at that moment in time. The stock of official reserves will typically also be growing or declining at some rate through time---it is this flow of increases or decreases in the stock of reserves that is commonly referred to as the balance of payments surplus or deficit, which can be expressed as

$$4. \quad \Delta R = \Delta[(1 / mm) P[\gamma - \theta(r^* + \tau) + \varepsilon Y]] - \Delta Dsc$$

where Δ is the change per unit time. Official reserve holdings change through time because the levels of income, prices, and the real interest rate and the money multiplier change through time---the effects of these changes are captured by the major collection of terms in the square brackets to the right of the equal sign. They also change as a result of a change in the domestic source component ΔDsc through time.

Notice that the presence of balance of payments equilibrium is completely independent of the condition of flow equilibrium---indeed, we did not have to include the IS equation in the above discussion. This is the case as long as people are free to buy and sell assets in the international market. There is no relationship of balance of payments equilibrium to equilibrium in the balance of trade---balance of payments equilibrium is entirely a monetary phenomenon. All this changes when we assume that there is zero private international mobility---that private residents are prohibited from purchasing assets from or selling them to foreign residents. In this case, the only domestically held foreign assets are official foreign exchange reserves and the condition of balance of payments equilibrium becomes

$$\Delta R = B_T$$

where B_T is the balance of trade---the balance of payments surplus or deficit becomes equal to the balance of trade surplus or deficit. To maintain balance of payments equilibrium the government has to bring about changes in the balance of trade by bringing about changes in the price level or income and employment or allowing the nominal exchange rate to change.

When there is international private capital mobility, the government can control the time-path of foreign exchange reserves simply by controlling the time-path of Dsc . But shocks to the demand for money are unpredictable and the main adjustment to these shocks will necessarily be the day-to-day purchases and sales of foreign exchange reserves in return for domestic currency necessary to keep the exchange rate at its fixed parity. Changes in the domestic source component perform the role of providing for long-run growth in the money supply to match the growth in demand as income and the volume of transactions rise with time.

Notes

Without growth in the domestic source component, the stock of foreign exchange reserves would grow without limit as the country's income and demand for money grows. This growth of reserves must be controlled because short-term foreign government securities, the main assets held as official reserves, are not a particularly good form for a country to hold large quantities of its wealth. Given the country's employed capital stock and the amount of wealth its residents possess, the bigger the fraction of that wealth held in the form of short-term foreign assets, the smaller will be the fraction held in equity and fixed income claims against domestically employed capital which will yield much higher returns than the treasury bills that form the greater part of the stock of official foreign exchange reserves.

The Canadian period of fixed exchange rates between late-1962 and mid-1970 provides an interesting example of the growth of official reserves in relation to base money. Figure 12.1 presents the two series expressed in millions of Canadian dollars.

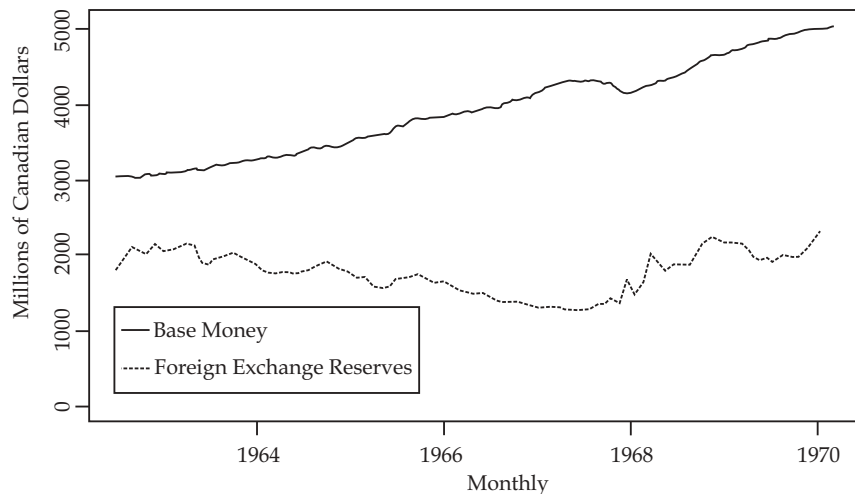


Figure 12.1 : Canada : Base Money and Foreign Exchange Reserves

Base money grew steadily in Canada except for a slight dip in late-1967 and early 1968. The Canadian stock of official foreign exchange reserves, on the other hand, declined very gradually until late-1967 and then trended upward thereafter, increasing sharply in 1970. The month-to-month changes in Canadian base money and official foreign exchange reserves are plotted in Figure 12.2.

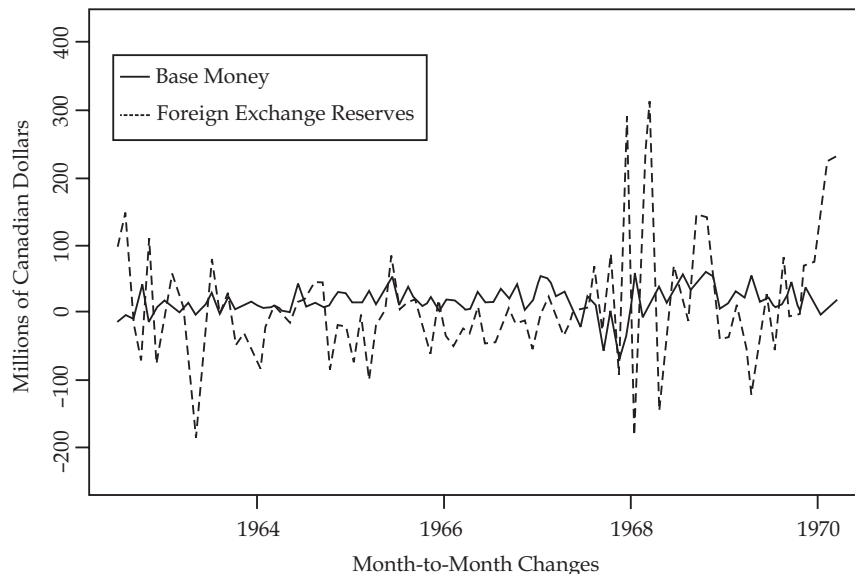


Figure 12.2 : Canada : Month-to Month Changes in Base Money and Official Reserves

Notes

The month-to-month changes in official foreign exchange reserves were much more variable than the month to month changes in base money, particularly in 1968, and reserves grew very sharply in early 1970. How do we explain this ?

The fact that reserves were more variable than base money suggests that these changes in official reserves were driven in considerable part by changes in the opposite direction in the domestic source component. Since H equals R plus Dsc , greater variability of R than H can only result from variability of Dsc in the opposite directions. An ordinary least squares regression of the month-to-month changes in foreign exchange reserves on the month-to-month changes in base money indicates no statistically significant relationship between them. The slope coefficient is negative with a P-Value of .23 --- indicating a 23 percent chance of observing a negative value of the magnitude observed purely on the basis of random chance when the true value is in fact zero---and the R-Square is only .01.

We have to conclude that much of the variability of the stock of official reserves was the result of the Bank of Canada's manipulation of the domestic source component but we should not venture a conclusion as to why the Bank was doing this without much more careful study. It is well-known that the Canadian Government abandoned the fixed exchange rate in mid-1970 in order to allow the government to control increasing upward domestic inflationary pressure which it was powerless to control under a fixed exchange rate. Accordingly, the observed escalating increases in the stock of official reserves in 1970 may well be the result of a fruitless attempt by the Bank of Canada to get a handle on domestic inflation by reducing the growth of the domestic source component of high-powered money. The only way to get control was to let the Canadian dollar float freely in the international market---only then could monetary policy become effective.

With respect to Canada's abandonment of the fixed exchange rate, it is useful to look at the movements in her real exchange rate with respect to the U.S., plotted in Figure 12.3.

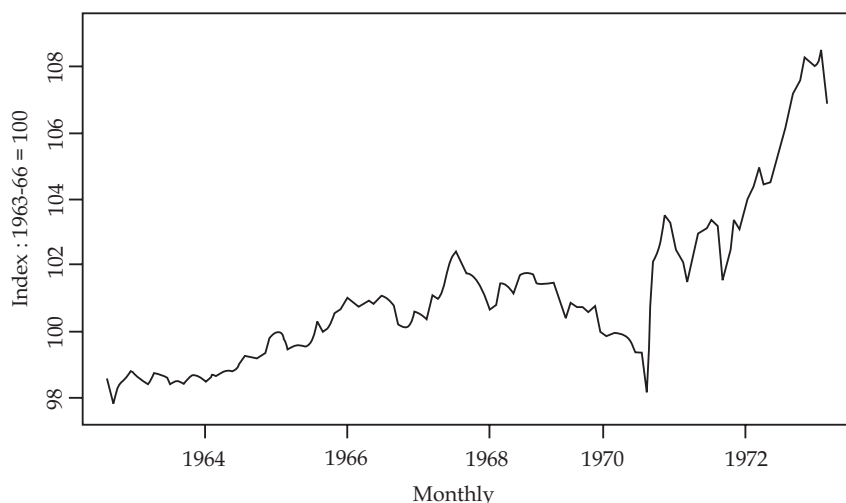


Figure 12.3: Canadian Real Exchange Rate With Respect to United States

Recall from the definition of the real exchange rate that

$$P = Q \Pi P^* .$$

If the government fixes the nominal exchange rate, the Canadian price level will vary up and down relative to the price level in the U.S. in response to movements in the equilibrium level of the real exchange rate Q arising from shifts in desired exports relative to imports, shifts in domestic relative to U.S. consumption and investment, changes in commodity prices, and so forth. When the exchange rate is fixed the Bank of Canada can not use monetary policy to avoid these price level changes.

Notice from Figure 12.3 that the real exchange rate increased by about 3.5 percent between mid-1962 and mid-1967--- an average rate of increase of a bit less than 3/4 of a percent per year. Then between mid-1967 and mid-1970 the real exchange rate fell by about the same amount---at an average

Notes

rate of about 1 percent per year. One would not be surprised if the Bank of Canada tried to offset this decline, particularly the sharp decline in late-1967 and early 1968, by manipulation of the domestic source component. In this respect, you should keep in mind that the basic theoretical framework that we are applying here was not understood at that time, apart from the special case where there was perfect capital mobility, then interpreted as an extreme situation where domestic and foreign assets are identical. The instability of the month-to-month changes in the stock of official foreign exchange reserves during 1968 may have reflected failed attempts by the Bank of Canada to control the stock of base money. Finally, notice the 5 percent increase in the real exchange rate that occurred over June, July and August of 1970. Were the nominal exchange rate held fixed, this would have implied a 5 percent increase in Canada's equilibrium price level over the three month period. It is not surprising that the country abandoned the fixed exchange rate. Indeed, the real exchange rate increased by an additional 5 to 6 percent between late-1970 and late-1972, making the abandonment of the fixed exchange rate a wise decision.

Despite these Canadian hassles, the above discussion of balance of payments disequilibrium seems tame in comparison to what one reads in the popular press. One reads about international currency crises as edgy investors shift funds from currency to currency, creating havoc with the payments system. In fact, most of the time things are very quiet. But occasionally the ability of a country to maintain its fixed exchange rate parity comes into question. Major movements in a country's real exchange rate, as demonstrated for Canada, particularly downward ones that by pressing down on the domestic price level will lead to increased unemployment, are a good reason to expect abandonment of a fixed exchange rate. Another very real possibility is that the government is under political pressure to finance some of its expenditures by printing money---that is, having the central bank buy bonds from the treasury which will use the money so obtained for public expenditure. Or it may be that the government is under pressure to expand the money supply to deal with a difficult domestic unemployment situation in the face of a forthcoming election. Whatever its cause, such monetary expansion is inconsistent with maintaining the nominal exchange rate fixed. It becomes a reasonable bet that the country's currency will devalue in the future.

The spectre of a potential future devaluation presents big expected profit opportunities. If the domestic currency in fact devalues there are enormous gains to having one's assets denominated in foreign currencies while if devaluation does not occur little is lost by holding these currencies. Not surprisingly, huge shifts of funds out of domestic currency denominated and into foreign currency denominated assets occur under these conditions. To maintain the exchange rate in the face of these speculative pressures, the authorities must sell large quantities of foreign exchange reserves. This seems to put them in danger of eventually running out of reserves, in which case devaluation becomes inevitable. As official reserve holdings continue to fall, the pressure mounts. Of course, the country's authorities can easily, and costlessly in terms of effects on employment and prices, avoid running out of reserves---all they have to do is reduce the domestic source component of the money supply, something they may be reluctant to do under less-than-full-employment conditions.

Although governments can borrow official reserves from the governments of other countries in emergency circumstances or, better still, costlessly create them by reducing the domestic source component of base money, they must eventually put their house in order. This means either abandoning the fixed exchange rate, thereby proving the speculators to be right, or establishing credibility in the eyes of asset holders that the domestic money supply will be allowed to be determined endogenously at the fixed exchange rate, regardless of the real exchange rate shocks and public finance demands that may arise.

Speculative pressures on the exchange rate sometimes also arise under flexible exchange rates. When investors think that a currency will depreciate in the future, they will shift funds out of assets denominated in that currency now. This means that the prices of those assets will fall and interest rates on them will rise to reflect a forward discount on the currency expected to depreciate. Under these circumstances, central banks may "lean against" movements in the external value of their currencies by purchasing and selling foreign exchange. Balance of payments disequilibria can thus arise even when the exchange rate is flexible although these are of minor consequence and probably should not even be referred to as disequilibria.

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An additional issue should be mentioned before we proceed to the test. It should be obvious that sterilization of the effects of changes in official holdings of foreign exchange reserves on the money supply is impossible under fixed exchange rates when assets can be freely bought and sold across international boundaries. Suppose that the demand for nominal money holdings declines and R falls. Any attempt of the authorities to offset this fall in R by an increase in D_{sc} will lead to a further fall in R equal to that increase in D_{sc} . The government has no control over the domestic money supply under fixed exchange rates.

It is time for a test. Figure out your own answers to the questions before looking at the ones provided.



Did u know?

The difference between speculative pressures under flexible and fixed exchange rates is that under flexible exchange rates it is harder to guess which way the rate is likely to move in the future. When speculative pressures arise under fixed exchange rates it is usually quite clear in which direction, if any, the exchange rate will move.

Types of BOP Equilibrium

There are two types of BOP equilibrium, i.e., static equilibrium and dynamic equilibrium :

- (a) **Static Equilibrium** : The distinction between static and dynamic equilibrium depends upon the time period. In static equilibrium, exports equal imports including exports and imports of services as well as goods and the other items on the BOPs – short term capital, long term capital and monetary gold are on balance, zero. Not only should the BOPs be in equilibrium, but also national money incomes should be in equilibrium vis-a-vis money incomes abroad. The foreign exchange rate must also be in equilibrium.
- (b) **Dynamic Equilibrium** : The condition of dynamic equilibrium for short periods of time is that exports and imports differ by the amount of short-term capital movements and gold (net) and there are no large destabilising short-term capital movements.

The **condition** for dynamic equilibrium in the long run is that exports and imports differ by the amount of long term autonomous capital movements made in a normal direction, i.e. from the low-interest rate country to those with high rates. When the BOP of a country is in equilibrium, the demand for domestic currency is equal to its supply. The demand and supply situation is thus neither favourable nor unfavourable. If the BOP moves against a country, adjustments must be made by encouraging exports of goods, services or other forms of exports or by discouraging imports of all kinds. No country can have a permanently unfavourable BOP, though it is possible – and is quite common for some countries – to have a permanently unfavourable balance of trade. Total liabilities and total assets of nations, as of individuals, must balance in the long-run.

12.2 Disequilibrium in Balance of Payments

Meaning of Disequilibrium in Balance of Payment

Though the credit and debit are written balanced in the balance of payment account, it may not remain balanced always. Very often, debit exceeds credit or the credit exceeds debit causing an imbalance in the balance of payment account. Such an imbalance is called the disequilibrium. Disequilibrium may take place either in the form of deficit or in the form of surplus.

Disequilibrium of **Deficit** arises when our receipts from the foreigners fall below our payment to foreigners. It arises when the effective demand for foreign exchange of the country exceeds its supply at a given rate of exchange. This is called an 'unfavourable balance'. Disequilibrium of **Surplus** arises when the receipts of the country exceed its payments. Such a situation arises when the effective demand for foreign exchange is less than its supply. Such a surplus disequilibrium is termed as 'favourable balance'.

Causes of Disequilibrium in Balance of Payment

Notes

1. Population Growth

Most countries experience an increase in the population and in some like **India** and **China** the population is not only large but increases at a faster rate. To meet their needs, imports become essential and the quantity of imports may increase as population increases.

2. Development Programmes

Developing countries which have embarked upon planned development programmes require to import capital goods, some raw materials which are not available at home and highly skilled and specialized manpower. Since development is a continuous process, imports of these items continue for the long time landing these countries in a balance of payment deficit.

3. Demonstration Effect

When the people in the less developed countries imitate the consumption pattern of the people in the developed countries, their import will increase. Their export may remain constant or decline causing disequilibrium in the balance of payments.

4. Natural Factors

Natural calamities such as the failure of rains or the coming floods may easily cause disequilibrium in the balance of payments by adversely affecting agriculture and industrial production in the country. The exports may decline while the imports may go up causing a discrepancy in the country's balance of payments.

5. Cyclical Fluctuations

Business fluctuations introduced by the operations of the **trade** cycles may also cause disequilibrium in the country's balance of payments. For example, if there occurs a business recession in foreign countries, it may easily cause a fall in the exports and exchange earning of the country concerned, resulting in a disequilibrium in the balance of payments.

6. Inflation

An increase in income and price level owing to rapid **economic development** in developing countries, will increase imports and reduce exports causing a deficit in balance of payments.

7. Poor Marketing Strategies

The superior marketing of the developed countries have increased their surplus. The poor marketing facilities of the developing countries have pushed them into huge deficits.

8. Flight of Capital

Due to speculative reasons, countries may lose foreign exchange or gold stocks. People in developing countries may also shift their capital to developed countries to safeguard against political uncertainties. These capital movements adversely affect the balance of payments position.

9. Globalisation

Due to globalisation there has been more liberal and open atmosphere for international movement of goods, services and capital. Competition has been increased due to the globalisation of international economic relations. The emerging new global economic order has brought in certain problems for some countries which have resulted in the balance of payments disequilibrium.

Types of BOP Disequilibrium

There are three main types of BOP Disequilibrium which are discussed below :

- (a) Cyclical disequilibrium,
- (b) Secular disequilibrium, and
- (c) Structural Disequilibrium.

Notes

(a) **Cyclical Disequilibrium** : Cyclical disequilibrium occurs because of **two** reasons. *First two countries may be passing through different paths of business cycle. Second, the countries may be following the same path but the income elasticities of demand or price elasticities of demand are different.* If prices rise in prosperity and decline in depression, a country with a price elasticity for imports greater than unity will experience a tendency for decline in the value of imports in prosperity; while those for which import price elasticity is less than one will experience a tendency for increase. (These tendencies may be overshadowed by the effects of income changes, of course. Conversely, as prices decline in depression, the elastic demand will bring about an increase in imports, the inelastic demand a decrease.)

(b) **Secular Disequilibrium** : *The secular or long-run disequilibrium in BOP occur because of long-run and deep seated changes in an economy as it advances from one stage of growth to another.* (The current account follows a varying pattern from one state to another. In the initial stages of development, domestic investment exceeds domestic savings and imports exceed exports.

Disequilibrium arises owing to lack of sufficient funds available to finance the import surplus, or the import surplus is not covered by available capital from abroad. Then comes a stage when domestic savings tend to exceed domestic investment and exports outrun imports. Disequilibrium may result, because the long-term capital outflow falls short of the surplus savings or because surplus savings exceed the amount of investment opportunities abroad. At a still later stage, domestic savings tend to equal domestic investment and long term capital movements are on balance, zero.)

(c) **Structural Disequilibrium** : Structural disequilibrium can be further bifurcated into :

(i) **Structural Disequilibrium at Goods Level** : *Structural disequilibrium at goods level occurs when a change in demand or supply of exports or imports alters a previously existing equilibrium, or when a change occurs in the basic circumstances under which income is earned or spent abroad, in both cases without the requisite parallel changes elsewhere in the economy.* (Suppose the demand for Pakistani handicrafts falls off. The resources engaged in the production of these handicrafts must shift to some other line or the country must restrict imports, otherwise the country will experience a structural disequilibrium.

A deficit arising from a structural change can be filled by increased production or decreased expenditure, which in turn affect international transactions in increased exports or decreased imports. Actually it is not so easy, because the resources are relatively immobile and expenditure not readily compressible. Disinflation or depreciation may be called for to correct a serious disequilibrium.)

(ii) **Structural Disequilibrium at Factors Level** : *Structural disequilibrium at the factor level results from factor prices which fail to reflect accurately factor endowments, i.e., when factor prices are out of line with factor endowments, distort the structure of production from the allocation of resources which appropriate factor prices would have indicated.* If, for instance, the price of labour is too high, it will be used more sparingly and the country will import goods with a higher labour content. This will lead to unemployment, upsetting the balance in the economy.

Self-Assessment

1. Choose the correct options:

- (i) Which of the following would be one of the results associated with the use of freely floating foreign exchange rates to correct a nation's balance of payments surplus?
 - (a) The nation's terms of trade with other nations would be worsened.
 - (b) Importers in the nation who had made contracts for the future delivery of goods would find that they had to pay a higher price than expected for the goods.
 - (c) If the nation were at full employment, the decrease in exports and the increase in imports would be inflationary.
 - (d) Exporters in the nation would find their sales abroad had decreased.

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- (ii) When exchange rates are fixed and a nation at full employment has a balance of payments surplus, the result in that nation will be
 - (a) a declining price level
 - (b) falling currency income
 - (c) inflation
 - (d) rising real income
- (iii) The use of exchange controls to eliminate a nation's balance of payments deficit results in decreasing the nation's
 - (a) imports
 - (b) exports
 - (c) price level
 - (d) income
- (iv) Which condition did a nation have to fulfill if it were to be under the gold standard?
 - (a) use only gold as a medium of exchange
 - (b) maintain a flexible relationship between its gold stock and its currency supply
 - (c) allow gold to be freely exported from and imported into the nation
 - (d) define its monetary unit in terms of a fixed quantity of dollars
- (v) If the nations of the world were on the gold standard and one nation has a balance of payments surplus,
 - (a) foreign exchange rates in that nation would rise
 - (b) gold would tend to be imported into that country
 - (c) the level of prices in that country would fall
 - (d) employment and output in that country would fall
- (vi) Which was the principal disadvantage of the gold standard?
 - (a) unstable foreign exchange rates
 - (b) persistent payments imbalances
 - (c) the uncertainties and decreased trade that resulted from the depreciation of gold
 - (d) the domestic macroeconomic adjustments experienced by a nation with a payments deficit or surplus

12.3 Summary

- The main purpose of this unit is to arrive at definitions of balance of payments equilibrium sufficiently precise to furnish policy-makers with meaningful guides.
- There is no doubt that a study of country's balance of payment reveals much information about its economic position and development of the country. But when we are to see that a country is heading towards financial bankruptcy or higher standard of living, we are to examine the balance of payments of many years of that country.
- Balance of payments equilibrium occurs when induced balance of payments transactions---those engineered by the government to influence the nominal exchange rate---are zero. This implies that autonomous receipts from exports and the sale of securities abroad equal autonomous payments for imports and the purchase of securities from foreign residents. Since changes in the stock of official reserves of foreign exchange are the method used by the authorities to fix or otherwise manipulate the exchange rate, balance of payments equilibrium requires that the stock of foreign exchange reserves be constant.
- **Static Equilibrium :** The distinction between static and dynamic equilibrium depends upon the time period. In static equilibrium, exports equal imports including exports and imports of services as well as goods and the other items on the BOPs – short term capital, long term capital and monetary gold are on balance, zero.
- **Dynamic Equilibrium :** The condition of dynamic equilibrium for short periods of time is that exports and imports differ by the amount of short-term capital movements and gold (net) and there are no large destabilising short-term capital movements.

Notes

- Though the credit and debit are written balanced in the balance of payment account, it may not remain balanced always. Very often, debit exceeds credit or the credit exceeds debit causing an imbalance in the balance of payment account. Such an imbalance is called the disequilibrium. Disequilibrium may take place either in the form of deficit or in the form of surplus.

12.4 Key-Words

1. Equilibrium : In economics, economic equilibrium is a state of the world where economic forces are balanced and in the absence of external influences the (equilibrium) values of economic variables will not change. For example, in the standard text-book model of perfect competition, equilibrium occurs at the point at which quantity demanded and quantity supplied are equal.
2. Structural Disequilibrium : A situation where internal and/or external forces prevent market equilibrium from being reached or cause the market to fall out of balance. This can be a short-term byproduct of a change in variable factors or a result of long-term structural imbalances.

12.5 Review Questions

1. Write a short note on the equilibrium of balance of payments.
2. What are the types of balance of payment equilibrium? Discuss.

Answers: Self-Assessment

1. (i) (d) (ii) (c) (iii) (a) (iv) (c) (v) (b)
(vi) (d)

12.6 Further Readings



1. Adapted, with slight modifications, from the definition given in the International Monetary Fund *Balance of Payments Manual*, 2nd edn., January 1950, p. 1.
2. Leland B. Yeager, *International Monetary Relations* (New York : Harper & Row, 1966), p. 36.
3. J.E. Meade, *The Theory of International Economic Policy, Vol. I : The Balance of Payments*, (1951) p. 7. See also Yeager, *op. cit.*, p. 452.
4. W.M. Scammel, *International Trade and Payments* (Toronto : The Macmillan Company, 1974) p. 272.
5. J.E. Meade, *op. cit.*, p. 11.

Unit 13: BOP Adjustment : Monetary Approach

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Objectives

After reading this Unit students will be able to:

- Understand BOP Adjustment.
- Explain the Monetary Approach to BOP Adjustment.

Introduction

The BOP adjustment has been a theoretically complex and practically complicated issue for both the economists and the policy maker. The economists have suggested variety of approaches and measures to correct the BOP disequilibrium. Correcting disequilibrium in the BOP has been, as noted above, a knotty problem for both economists and policy-makers. However, efforts continued to find a general solution to the problem of BOP adjustment. In the process, there emerged another important approach to BOP adjustment, called *monetary approach*. It must be borne in mind that the monetary approach developed by these economists is different from monetary-policy approach. The monetary approach to BOP adjustments is discussed below.

13.1 Monetary Approach to BOP Adjustments

According to the modern monetary approach, BOP, *disequilibrium is a monetary phenomenon*. The BOP disequilibrium (deficit or surplus) arises because of imbalance between the demand for and supply of money. The BOP **deficits** arise because money supply exceeds the demand for money and BOP **surplus** is the outcome of the excess of demand for money over the supply of money. The monetary approach is based on the premise that BOP disequilibrium arising out of discrepancy between the demand for and supply of money is a transitory phenomenon and is self-correcting in the long run.

Another important feature of the monetary approach is that it looks at the BOP “bottoms up.” That is, it begins the analysis of BOP disequilibrium by looking at the bottom of the BOP accounts, *i.e.*, the change in the official foreign exchange reserves. Rather than analyzing ‘above the line’ entries in the BOP accounts, monetary approach lumps together all the transactions in the current and capital accounts and looks at the changes in the final outcome of the international transactions. The final outcome is reflected by the change in the official reserves of foreign exchange.

Pending the details, let us first look at the process of *self-correction*. The self-correction process begins with the change in the *official reserves*. In case there is deficit in the BOP, it causes a decline in the official reserves of foreign exchange. Decline in the foreign exchange reserves leads to a decline in the money supply. The decrease in money supply leads to decrease in domestic prices, increase in exports, decrease in imports, and decrease in trade deficits. These trends automatically correct the BOP disequilibrium. On the other hand, a surplus in the BOP increases money supply which causes rise in

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prices, decrease in exports, and rise in imports. This decreases the trade surplus. Thus, the surplus in BOP is automatically eliminated and BOP disequilibrium is corrected. These conclusions can be established through the basic model of the monetary approach.



Did u know? The monetary approach was developed by Robert A. Mundell in 1968 and 1971 and Harry G. Johnson in 1972.

The Model of Monetary Approach

According to the monetary approach, BOP imbalance (B) equals the difference between the demand for money (M_d) and the supply of money (M_s).

$$B = M_d - M_s \quad \dots (1)$$

The relationship between the BOP and money demand and supply is illustrated in Figure 1. In this figure, the demand for money, M_d , is assumed to be exogenously determined and to remain constant. This assumption can be explained as follows. We know that,

$$M_d = M_t + M_{sp} \quad \dots (2)$$

where, M_t = transaction demand, and M_{sp} = speculative demand for money.

We know also that $M_t = f(Y)$ and $M_{sp} = f(i)$, where Y = national income, and i = interest rate. The monetary approach to BOP adjustment assumes that both Y and i are exogenously determined. It implies that so long as Y and i remain constant, the demand for money remains constant as shown by the schedule M_d in Figure 1.

As regards the supply of money, monetary approach assumes that money supply in an open economy equals *domestic component of money supply plus external component of money supply*. The domestic component of money supply equals *money multiplier times the commercial bank reserves with the central bank (i.e., the domestic component of the monetary base)*. The external component of money supply equals money multiplier times the 'international reserves' (i.e., the external component of the monetary base). Given these components of money supply, M_s , in Eq. 1 can be defined as :

$$M_s = m (DB + IB) \quad \dots (3)$$

where, m = money multiplier; DB = domestic base (commercial banks' deposits with the central bank); and IB = international base (international reserves).

The monetary approach to BOP adjustment assumes DB and money multiplier (m) to remain constant. Therefore, domestic component of money supply remains constant. The constant domestic component of money supply has been shown in Figure 13.1 by the horizontal schedule $m(DB)$ by assuming $mDB =$ Rs. 100 billion. The schedule $m(DB)$ has been drawn by assuming $m = 5$ and DB = Rs. 20 billion (constant).

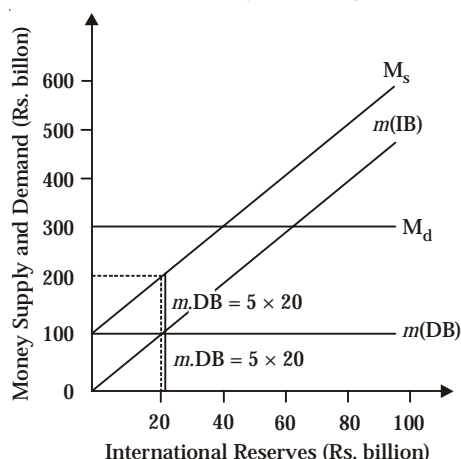


Figure 13.1 : Money Demand and Supply and International Balance

On the other hand, the international balance (IB) is supposed to be a variable factor. Therefore, the international component of money supply changes with the change in the international balance (IB). It equals $m \times IB$. The international component of money supply schedule thus obtained is given by the schedule $m(IB)$. The $m(IB)$ schedules in our example is based on $s(IB)$. The aggregate money supply schedule, M_s , is the vertical sum of schedules $m(DB)$ and $m(IB)$. This is precisely the *monetary approach* model. Let us now look at the self-correcting mechanism of the BOP disequilibrium as envisaged by the monetary approach to the problem.

The Self-Correcting Mechanism

The self-correcting mechanism under monetary approach is illustrated in Figure 13.2 assuming a fixed exchange rate. Panel (a) of this figure is reproduction of Figure 13. 1 and panel (b) is a derivation from panel (a). As shown in panel (a) the total money supply schedule (M_s) and the total money demand schedule (M_d) intersect at point E where M_d equals M_s at Rs. 300 billion and, at the equilibrium, international reserves equals Rs. 40 billion. It implies that if international reserves equal Rs. 40 billion, then M_d will always be equal to M_s and the monetary sector will be in equilibrium.

The point that needs to be noted here is that, according to the monetary approach, when total demand for money equals total money supply, then BOP is in equilibrium—there is neither surplus nor deficit in the BOP. As shown in panel (a) of Figure 13.2, at no point other than point E money supply equals money demand. Therefore, at all other points along the M_s and M_d schedules, there is either deficit or surplus in the BOP. This phenomenon is illustrated in panel (b) of Figure 13. 2. The *payments imbalance schedule* represents the vertical difference between the M_d and M_s schedules in panel (a). Point E' in panel (b) shows zero BOP balance corresponding to point E in panel (a).

The Self-Correcting Process : According to the monetary approach, the self-correcting process is an in-built system. When demand for money exceeds the supply of money, it means that there is surplus in the BOP. As Figure 13. 2 shows, at all the points below point E along the schedule M_s in panel (a), demand for money exceeds supply of money. It means that, in accordance with Eq. 1, there is BOP surplus, that is, increase in the foreign exchange reserves. For example, at foreign exchange reserves of Rs. 20 billion, the demand for money equals Rs. 300 billion and money supply equals Rs. 200 billion. It means that money demand exceeds money supply by $JK = \text{Rs. } 100$ billion. This means a BOP surplus of Rs. 100 billion, which enhances the foreign exchange reserves. This rise in the foreign exchange reserves pushes the money supply up over time along the schedule M_s towards point E. At point E, demand for money equals the supply of money. Therefore, there is neither surplus nor deficit in the BOP. That is, the BOP is automatically restored to equilibrium.

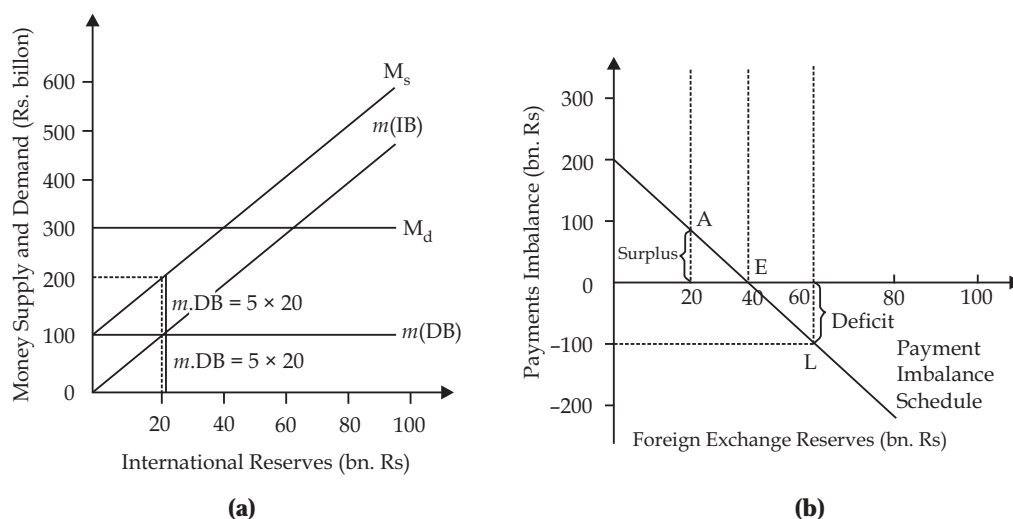


Figure 13.2 : Self-Correcting Monetary Mechanism

Notes

Similarly, when money supply exceeds money demand, BOP shows a deficit. For example, at foreign exchange reserves of Rs. 60 billion, money supply exceeds money demand by $LM = \text{Rs. } 400 \text{ billion} - \text{Rs. } 300 \text{ billion} = \text{Rs. } 100 \text{ billion}$. This means a BOP deficit of Rs. 100 billion. The deficit in the BOP decreases the money supply over time. The decrease in money supply makes the system move back to point E. This process continues until the money supply falls to Rs. 400 billion to equal the money demand. At point E, the demand for money equals the supply of money. It means $B = 0$ [in Eq. (1)] and there is neither deficit nor surplus in the balance of payment. This is how the BOP equilibrium is automatically restored.

13.2 Elasticity Approach

The elasticity approach, which has been associated with Robinson (1937), places its emphasis on the effects of exchange rate changes on the exports and imports of a country and, hence, on the trade account balance, whilst ignoring all other variables such as income. The elasticity approach applies the Marshall-Lerner condition, which states that the sum of the elasticities of demand for imports and exports must be greater than unity in absolute terms for a devaluation to improve the balance of payments (Du Plessis et al., 1998).

The logic behind this condition is as follows. Suppose the elasticity of demand for exports is zero. In this case exports in domestic currency are the same as before devaluation. If the sum of the elasticities is greater than one, the elasticity of demand for imports must be greater than one, so that the value of imports falls. With no fall in the value of exports and a fall in the value of imports, the balance of payments improves. Now, suppose the demand for imports has zero elasticity. The value of imports will rise by the full percentage of devaluation. If the elasticity of demand for exports is greater than unity, the value of exports will expand by more than the percentage of devaluation. Therefore, the balance of payments will improve. If each element of the elasticity of demand is less than unity, but the sum is greater than unity, the balance of payments will improve because expansion of exports in domestic currency will exceed the value of imports.

Absorption Approach

The absorption approach was first presented by Alexander (1952). He sought to look at the balance of trade from the point of view of national income accounting. It is useful in pointing out that an improvement in the balance of trade calls for an increase in production relative to absorption. The absorption approach intends to show how devaluation might change the relationship between expenditures or between absorption and income - in both nominal and real terms. It is worth noting that great emphasis is laid on the current account balance. This approach contends that the devaluation of a currency would lead to an increase in inflationary prices, which would in turn revoke the initial effect of an increase in prices.

The starting point of the absorption approach is the national income identity: $Y = C + I + G + X - M$ (5) Where Y = national income; C = private consumption of goods and services purchased at home and from abroad; I = total investment, by firms as well as by government; G = government expenditure on goods and services; X = exports of goods and services; and M = imports of goods and services. Combining $C + I + G$ expenditure terms into a single term, A , representing domestic absorption (i.e., total domestic expenditure) and $X - M$ terms into B , net exports/trade balance, we get: $Y = A + B$ (6) equation 6 states that national income equals absorption plus the trade balance, or alternatively $B = Y - A$ (7) Equation 7 states that the trade balance is equal to the difference between domestic income and total absorption. Equation (7) is the fundamental equation of the absorption approach. It implies that, if total absorption (expenditure) exceeds income (production), then imports will exceed exports, resulting in a balance of payments deficit. If the opposite occurs, i.e. where income exceeds absorption, then the balance of payments will be in surplus. A balance of payments deficit can, therefore, only be corrected if the level of absorption changes relative to the level of income (Du Plessis et al., 1998:251). The empirical literature is replete with studies on the monetary approach to balance of payment. Mixed results were obtained from the different studies on the MABP. Obioma (1998) used data for 1960-1993 to test the validity of monetary approach to the balance-of-payments adjustment for Nigeria

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under fixed and flexible exchange regimes. He found that an increase in domestic credit or money stock leads to external reserves outflow or adverse balance of payments during the fixed exchange rate regime. But in the flexible exchange rate era, an increase in domestic credit brings about exchange rate depreciation. Using data for 1960-1995, Jimoh (1990) also found that the monetary approach is relevant in analyzing balance-of-payments adjustments in Nigeria.

The empirical results validate the MABP in Zimbabwe. The implication of such result is that money played a significant role in the determination of deficits in the balance of payments. In a related development, Coppin (1994:83) carried out a study for Barbados to test the validity of the MABP. It was evident from his results that the degree of openness of an economy played a particularly important role in determining international reserves. He found strong evidence in support of the MABP in Barbados. Specifically, the result revealed that expansionary fiscal policy played a vital role over monetary factors in determining international reserves. Furthermore, Aghevli and Khan (1977) performed an empirical test on the MABP for 39 developing countries and found highly significant results, maintaining that the mechanisms underlying the MABP held strongly for these countries.

Lachman (1975) conducted a study to test the validity of the MABP for South Africa. His results found strong evidence in favour of the MABP, and concluded that monetary authorities would definitely be able to predict the extent to which increases in money supply would augment imports. Leon (1988), also examined the applicability of the MABP in Jamaica. He used the reserve-flow and sterilization equations using both single and simultaneous equations. The results found strong evidence in favour of the reserve-flow equation, and that the MABP's predictions were not rejected. The results also revealed that monetary authorities were in fact sterilising reserves in Jamaica. Watson (1990), also conducted a study on Trinidad and Tobago in assessing the MABP, using data for the period 1965-1985. The results did not find any support in favour of the MABP, indicating that balance of payment problems in Trinidad and Tobago is not a monetary policy issue.

In summary, there is convincing evidence that the MABP in fact is an important concept in the literature and an unresolved issue. While some studies found evidence of the MABP (see Lachman (1975), Dhliwayo (1996)), others including Watson (1990), did not find any support in favour of the MABP. Most parts of the empirical literature were based on the 'reserve-flow equation', where a country's international reserves, or the rates of change in reserves, are regarded as the dependent variable. On the other hand, the independent variables vary in the different studies. They can include domestic income, prices, the interest rate, government expenditure, money multiplier, money stock, the exchange rate, and demand for nominal and real money balances. Thus, given the conflicting evidence in the literature and the prevalence of the BOP deficit in the WAMZ countries, it is necessary to undertake an empirical study in order to validate the MABP.



Notes

Dhliwayo (1996) used data for the period 1980-1991 to investigate the MABP in Zimbabwe. His findings indicate a one-to-one negative relationship between domestic credit and the flow of international reserves.

Self-Assessment

1. Choose the correct options:

- (i) Balance of Payments equilibrium means
 - (a) the balance of trade equals zero
 - (b) the current account balance equals zero
 - (c) the capital account balance equals zero
 - (d) the current account balance is exactly offset by the capital account balance

Notes

- (ii) Macroeconomic equilibrium in an open economy requires
 - (a) goods market equilibrium
 - (b) money market equilibrium
 - (c) balance of payments equilibrium
 - (d) all of the above
 - (e) only (a) and (b) above
- (iii) An implication of the asset approach is that
 - (a) since financial asset prices change rapidly, exchange rate should vary more than goods prices
 - (b) since PPP holds even in the short-run, goods prices should change as rapidly as the exchange rate
 - (c) covered interest parity will rarely hold if there is perfect capital mobility
 - (d) goods prices will be largely unaffected by exchange rate changes in the long run
- (iv) Suppose the U.S. fixes the price of gold at \$2.00 per ounce, and Germany fixes the price of gold at €4.00 per ounce. The \$/€ exchange rate is
 - (a) 1:2
 - (b) 2:1
 - (c) 1:1
 - (d) 1:4
- (v) The elasticity approach to the balance of trade
 - (a) focuses on the effects of changing relative prices of domestic and foreign goods on the balance of trade
 - (b) is only applicable with a floating exchange rate system
 - (c) is based on an analysis of the absolute prices of a country's exports in world markets
 - (d) indicates that the demand elasticity for exports is always inelastic
- (vi) The J-curve
 - (a) only occurs under fixed exchange rates
 - (b) occurs when a currency is appreciated
 - (c) shows the initial worsening of the balance of trade with a devaluation
 - (d) shows how the balance of trade immediately improves after a devaluation
- (vii) The monetary approach to the balance of payments
 - (a) focuses on the importance of the current account balance
 - (b) views exchange rate variations as the sole adjustment mechanism
 - (c) highlights the role of financial assets of payments adjustment
 - (d) implies that the price level and exchange rate can both be determined by the central bank

13.3 Summary

- The main aim of this paper was to determine the dynamics of balance of payments adjustment in the countries of the West African Monetary Zone (WAMZ). Specifically, the study seeks to examine the MABP theory and its implication for the WAMZ countries. This entails estimating a net foreign asset equation and testing if the estimated partial coefficient of changes in domestic credit with respect to net foreign asset is not significantly different from minus one. If the condition is satisfied, the inference is that the money plays a role in the determination of balance of payments deficits. The empirical results confirm that money has played a significant role in the determination of deficits in the balance of payments. Thus, the findings from both the within-country and cross-country effects suggest that the monetary approach to the WAMZ countries balance of payments is indeed applicable. Specifically, the findings indicate that both interest

Notes

rate and domestic credit had negative relationship with net foreign asset with statistically significant coefficients. In addition, the result established a positive relationship between log of GDP and net foreign asset with statistically significant coefficients.

- A major policy implication of this study is that the monetary approach to the balance of payments holds in the WAMZ countries studied, since growth in domestic credit is an important determinant of their balance of payments position. Therefore, a tight rein on domestic credit creation is a necessary condition for maintaining stability in the balance of payments over time. Thus, monetary authorities should pay special attention to domestic credit creation when controlling the country's balance of payments. It is important that the country achieves sufficient economic growth through money demand to correct the balance of payments deficit. Authorities of the WAMZ countries should also look at the increased budget deficit, which is mostly financed through borrowing from the central bank. The expansion in the fiscal deficit caused the increases in domestic credit.
- Another policy implication is the need to manage domestic liquidity wisely in view of the tremendous pressure on the balance of payments of excess money. A determined effort to mobilize resources through private saving and the implementation of a prudent fiscal policy through efficient collection of tax revenues, rationalization of government expenditure towards growth enhancing and poverty reduction programmes will also enable the government to pursue its development programs without having to rely on the monetization of its budget deficit.

13.4 Key-Words

1. Monetary Approach : A framework for analyzing exchange rates and the balance of payments that focuses on supply and demand for money in different countries.
2. Deficit : A deficit is the amount by which a sum falls short of some reference amount. In economics, a deficit is a shortfall in revenue

13.5 Review Questions

1. What is the monetary approach to BOP Adjustments?
2. Discuss the model of Monetary approach.
3. Distinguish between elasticity and absorption approach.

Answers: Self-Assessment

1. (i) (d) (ii) (d) (iii) (a) (iv) (a) (v) (a)
(vi) (c) (vii) (c)

13.6 Further Readings



1. Alexander, S. S., "Effects of Devaluation on the Trade Balance," *IMF Staff Papers*, Vol.2, April 1952, reprinted in H.G. Johnson and R. E. Caves (eds). *Readings in International Economics*, (Richard D. Irwin, Homewood, Ill., 1968).
2. Chacholiades, M., *International Economics*, (McGraw-Hill, New York, 1990), Chs. 12-15 and 19.
3. Demburg, Thomas, F., *Macroeconomics : Concepts, Theories and Policies*, (McGraw-Hill, New York, 1985). Chs. 15 and 16.
4. Dornbusch, D, Fischer, S., and Startz, R., *Macroeconomics*, (McGraw-Hill, New York, 7th edn.), Ch. 12. International Monetary Fund (IMF), *Balance of Payments Manual*, 4th Edn.(1977).

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Unit 14 : Exchange Rate : Meaning and Components**CONTENTS**

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Introduction

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14.4 Key-Words

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Objectives

After reading this Unit students will be able to:

- Know the Meaning of Exchange Rate.
- Discuss the Components of Exchange Rate.

Introduction

In virtually all modern economies, money (i.e. currency) is created and controlled by a central governing authority. In most cases, currencies are developed by individual countries, though this need not be the case. (One notable exception is the Euro, which is the official currency for most of Europe.) Because countries buy goods and services from other countries (and sell goods and service to other countries), it's important to think about how currencies of one country can be exchanged for currencies of other countries.

Like other markets, foreign-exchange markets are governed by the forces of supply and demand. In such markets, the "price" of a unit of currency is the amount of another currency that is needed to purchase it. For example, the price of one Euro is, as of the time of writing, about 1.25 US dollars, since currency markets will exchange one Euro for 1.25 US dollars.

These currency prices are referred to as exchange rates. More specifically, these prices are *nominal exchange rates* (not to be confused with real exchange rates). Just as the price of a good or service can be given in dollars, in Euro, or in any other currency, an exchange rate for a currency can be stated relative to any other currency. You can see a variety of such exchange rates by going to various finance web sites.

A US Dollar/Euro (USD/EUR) exchange rate, for example, gives the number of US dollars than can be bought with one Euro, or the number of US dollars per Euro. In this way, exchange rates have a numerator and a denominator, and the exchange rate represents how much numerator currency can be exchanged for one unit of denominator currency.

Because currency prices are stated relative to another currency, economists say that currencies appreciate and depreciate specifically relative to other currencies.

Appreciation and depreciation can be inferred directly from exchange rates. For example, If the USD/EUR exchange rate were to go from 1.25 to 1.5, the Euro would buy more US dollars than it did before. Therefore, the Euro would appreciate relative to the US dollar. In general, if an exchange rate increases, the currency in the denominator (bottom) of the exchange rate appreciates relative to the currency in the numerator (top).



Changes in the price of a currency are referred to as appreciation and depreciation. Appreciation occurs when a currency becomes more valuable (*i.e.* more expensive), and depreciation occurs when a currency becomes less valuable (*i.e.* less expensive).

Similarly, if an exchange rate decreases, the currency in the denominator of the exchange rate depreciates relative to the currency in the numerator. This concept can be a little tricky, since it's easy to get backwards, but it makes sense : for example, if the USD/EUR exchange rate were to go from 2 to 1.5, a Euro buys 1.5 US dollars rather than 2 US dollars. The Euro therefore depreciates relative to the US dollar, since a Euro doesn't trade for as many US dollars as it used to.

14.1 Meaning of Exchange Rate

The foreign exchange rate or exchange rate is the rate at which one currency is exchanged for another. It is the price of one currency in terms of another currency. It is customary to define the exchange rate as the price of one unit of the foreign currency in terms of the domestic currency. The exchange rate between the dollar and the pound refers to the number of dollars required to purchase a pound. Thus the exchange rate between the dollar and the pound from the US viewpoint is expressed as \$ 2.50 = £ 1. The Britishers would express it as the number of pounds required to get one dollar, and the above exchange rate would be shown as £ 0.40 = \$ 1.

The exchange rate of \$ 2.50 = £ 1 or £ 0.40 = \$ 1 will be maintained in the world foreign exchange market by arbitrage. *Arbitrage refers to the purchase of a foreign currency in a market where its price is low and to sell it in some other market where its price is high.* The effect of arbitrage is to remove differences in the foreign exchange rate of currencies so that there is a single exchange rate in the world foreign exchange market. If the exchange rate is \$ 2.48 in the London exchange market and \$ 2.50 in the New York exchange market, foreign exchange speculators, known as arbitrageurs, will buy pounds in London and sell them in New York, thereby making a profit of 2 cents on each pound. As a result, the price of pounds in terms of dollars rises in the London market and falls in the New York market. Ultimately, it will equal in both the markets and arbitrage comes to an end. If the exchange rate between the dollar and the pound rises to \$ 2.60 = £ 1 through time, the dollar is said to depreciate with respect to the pound, because now more dollars are needed to buy one pound. When the rate of exchange between the dollar and the pound falls to \$ 2.40 = £ 1, the value of the dollar is said to appreciate because now less dollars are required to purchase one pound. If the value of the first currency depreciates that of the other appreciates, and vice versa. Thus a depreciation of the dollar against the pound is the same thing as the appreciation of the pound against the dollar, and vice versa.

14.2 Components of Exchange Rate

Forward and Spot Exchange Rates

There is much empirical work on forward foreign exchange rates as predictors of future spot exchange rates. There is also a growing literature on whether forward rates contain variation in premiums. There is a general consensus that forward rates have little if any power to forecast changes in spot rates. There is less consensus on the existence of time varying premiums in forward rates. Frankel (1982) and Domowitz and Hakkio (1983) fail to identify such premiums, while Hsieh (1982). Hansen and Hodrick (1983), Hodrick and Srivastava (1984), and Korajczyk (1983) find evidence consistent with time varying premiums.

This unit tests a model for joint measurement of variation in the premium and expected future spot rate components of forward rates. Conditional on the hypothesis that the forward market is efficient or rational, we find reliable evidence that both components of forward rates vary through time. More startling are the conclusions that (a) most of the variation in forward rates is variation in premiums, and (b) the premium and expected future spot rate components of forward rates are negatively correlated.

Notes

Theoretical framework

The forward exchange rate f_t observed at time t for an exchange at $t + 1$ is the market determined certainty equivalent of the future spot exchange rate s_{t+1} . One way to split this certainty equivalent into an expected future spot rate and a premium is

$$F_t = E(S_{t+1}) + P_t \quad \dots (1)$$

where $F_t = \ln f_t$, $S_{t+1} = \ln s_{t+1}$, and the expected future spot rate, $E(S_{t+1})$, is the rational or efficient forecast, conditional on all information available at t . Logs are used (a) to make the analysis independent of whether exchange rates are expressed as units of currency i per unit of currency j or units of j per unit of i , and (b) because some models for the premium can be stated in logs.

Eq. (1) is no more than a particular definition of the premium component of the forward rate. To give the equation economic content, a model that describes the determination of P , is required. Examples of such models are discussed later. For the statistical analysis of the premium and expected future spot rate components of the forward rate, however, it suffices that the forward rate is the market determined certainty equivalent of the future spot rate.

Statistics

From (1) the difference between the forward rate and the current spot rate is

$$F_t - S_t = P_t + E(S_{t+1} - S_t). \quad \dots (2)$$

Consider the regressions of $F_t - S_{t+1}$ and $S_{t+1} - S_t$ (both observed at $t + 1$) on $F_t - S_t$ (observed at t),

$$F_t - S_{t+1} = \alpha_1 + \beta_1(F_t - S_t) + \varepsilon_{1,t+1}, \quad \dots (3)$$

$$S_{t+1} - S_t = \alpha_2 + \beta_2(F_t - S_t) + \varepsilon_{2,t+1}. \quad \dots (4)$$

Estimates of (4) tell us whether the current forward-spot differential, $F_t - S_t$ has power to predict the future change in the spot rate, $S_{t+1} - S_t$. Evidence that β_2 is reliably non-zero means that the forward rate observed at t has information about the spot rate to be observed at $t + 1$. Likewise, since $F_t - S_{t+1}$ is the premium P_t plus $E(S_{t+1}) - S_{t+1}$, the random error of the rational forecast $E(S_{t+1})$, evidence that β_1 in (3) is reliably non-zero means that the premium component of $F_t - S_t$ has variation that shows up reliably in $F_t - S_{t+1}$.

With the assumption that the expected future spot rate in the forward rate is efficient or rational, the regression coefficients in (3) and (4) are

$$\begin{aligned} \beta_1 &= \frac{\text{cov}(F_t - S_{t+1}, F_t - S_t)}{\sigma^2(F_t - S_t)}, \\ &= \frac{\sigma^2(P_t) + \text{cov}(P_t, E(S_{t+1} - S_t))}{\sigma^2(P_t) + \sigma^2(E(S_{t+1} - S_t)) + 2\text{cov}(P_t, E(S_{t+1} - S_t))}, \quad \dots (5) \end{aligned}$$

$$\begin{aligned} \beta_2 &= \frac{\text{cov}(S_{t+1} - S_t, F_t - S_t)}{\sigma^2(F_t - S_t)} \\ &= \frac{\sigma^2(E(S_{t+1} - S_t)) + \text{cov}(P_t, E(S_{t+1} - S_t))}{\sigma^2(P_t) + \sigma^2(E(S_{t+1} - S_t)) + 2\text{cov}(P_t, E(S_{t+1} - S_t))} \quad \dots (6) \end{aligned}$$

Notes

In the special case where P_t and $E(S_{t+1} - S_t)$ are uncorrected, the regression coefficients β_1 and β_2 split the variance of $F_t - S_t$ into two parts : the proportion due to the variance of the premium and the proportion due to the variance of the expected change in the spot rate. When the two components of $F_t - S_t$ are correlated, the contribution of covariation between P_t and $E(S_{t+1} - S_t)$ to $\sigma^2(F_t - S_t)$ is divided equally between β_1 and β_2 . The regression coefficients still include the proportions of $\sigma^2(F_t - S_t)$ due to $\sigma^2(P_t)$ and $\sigma^2(E(S_{t+1} - S_t))$, but the simple interpretation of β_1 and β_2 obtained when P_t and $E(S_{t+1} - S_t)$ are uncorrected is lost. The troublesome $\text{cov}(P_t, E(S_{t+1} - S_t))$ in (5) and (6) is a central issue in the empirical tests.

Since $F_t - S_{t+1}$ and $S_{t+1} - S_t$, sum to $F_t - S_t$, the sum of the intercepts in (3) and (4) must be zero, the sum of the slopes must be 1.0, and the disturbances, period-by-period, must sum to 0.0. In other words, regressions (3) and (4) contain identical information about the variation of the P_t and $E(S_{t+1} - S_t)$ components of $F_t - S_t$, and in principle there is no need to show both. I contend, however, that joint analysis of the regressions is what makes clear the information that either contains. Thus, regression (4) of the change in the spot rate, $S_{t+1} - S_t$, on the forward rate minus the current spot rate, $F_t - S_t$, is common in the literature. It is also widely recognized that deviations of β_2 in (4) from 1.0 can somehow be due to a time varying premium in the forward rate. To my knowledge, however, the explicit interpretation of the regression coefficients provided by (5) and (6) is not well known. In particular, it is not widely recognized that, given an efficient or rational exchange market, the deviation of β_2 from 1.0 is a direct measure of the variation of the premium in the forward rate. The complementarity of the regression coefficients in (3) and (4) which is described in (5) and (6) helps us to interpret some of the anomalous results observed for estimates of (4).

Economics

Since a major conclusion of the empirical work is that variation in forward rates is mostly variation in premiums, some discussion of the economics of premiums is warranted. Using more precise notation, let f_t^{ij} and s_t^{ij} be the forward and spot exchange rates (units of currency i per unit of currency j) observed at t , and let R_{it} and R_{jt} be the nominal interest rates observed at t on discount bonds denominated in currencies i and j . The bonds have either zero or identical default risks, and they have the same maturity as f_t^{ij} .

With open international bond markets, the no arbitrage condition of interest rate parity (IRP) implies

$$f_t^{ij} / s_t^{ij} = (1 + R_{it}) / (1 + R_{jt}). \quad \dots (7)$$

Thus, the difference between the forward and spot exchange rates observed at t is directly related to the difference between the interest rates on nominal bonds denominated in the two currencies. Any premium in the forward rate must be explainable in terms of the interest rate differential.

For example (and keep in mind that it is just an example), suppose (a) that exchange rates are characterized by complete purchasing power parity (PPP), and (b) that the Fisher equation holds for nominal interest rates. Let V_{it} and V_{jt} be the price levels in the two countries, let $\Delta_{i,t+1} = \ln(V_{i,t+1} / V_{it})$ and $\Delta_{j,t+1} = \ln(V_{j,t+1} / V_{jt})$ be their inflation rates, and let $r_{i,t+1}$ and $r_{j,t+1}$ be the *ex post* continuously compounded real returns on their nominal bonds. Taking logs in (7) and applying the Fisher equation to the resulting continuously compounded nominal interest rates, we have

Notes

$$\begin{aligned}
F_t^{ij} - S_t^{ij} &= [E(r_{i,t+1}) + E(\Delta_{i,t+1})] - [E(r_{j,t+1}) + E(\Delta_{j,t+1})] \\
&= [E(r_{i,t+1}) - E(r_{j,t+1})] + [E(\ln V_{i,t+1}) - E(\ln V_{j,t+1})] \\
&\quad - [\ln V_{it} - \ln V_{jt}] \quad \dots (8)
\end{aligned}$$

With complete PPP, $S_t^{ij} = V_{it} / V_{jt}$, that is, the spot exchange rate is the ratio of the price levels in the two countries, and (11) reduces to

$$F_t^{ij} = [E(r_{i,t+1}) - E(r_{j,t+1})] + E(S_{t+1}^{ij}) \quad \dots (9)$$

In words, with the Fisher equation, interest rate parity and purchasing power parity, the premium P_t in the forward rate expression (1) is just the difference between the expected real returns on the nominal bonds of the two countries. Thus, the variables that determine the difference between the expected real returns on the nominal bonds (for example, differential purchasing power risks of their nominal payoffs) also explain the premium in the forward rate. This interpretation applies to any model of international capital market equilibrium characterized by IRP, PPP, and the Fisher equation for nominal interest rates. Examples are the international version of the Sharpe (1964) and Lintner (1965) model discussed by Fama and Farber (1979) or the version of the Lucas (1978) model discussed by Hodrick and Srivastava (1984).

The lock between the premium in the forward exchange rate and the interest rates on the nominal bonds of two countries is the direct consequence of the interest rate parity condition (7) of an open international bond market. For example, using IRP and an international version of the Breeden (1979) model, Stulz (1981) derives an expression for the forward rate similar to (1) or (9), but for a world in which (a) complete PPP does not hold, and (b) differential tastes for consumption goods combine with uncertainty about relative prices to strip the Fisher equation of its meaning.

Data and summary statistics

Spot exchange rates and thirty-day forward rates for nine major currencies are taken from the Harris Bank Data Base supported by the Center for Studies in International Finance of the University of Chicago. The rates are Friday closes sampled at four-week intervals. There are 122 observations covering the period August 31, 1973, to December 10, 1982. All rates are U.S. dollars per unit of foreign currency.

Table 1 shows means, standard deviations, and autocorrelations of $S_{t+1} - S_t$ (the four-week change in the spot rate), $F_t - S_{t+1}$ (the thirty-day forward rate minus the spot rate observed four weeks later), and $F_t - S_t$ (the forward rate minus the current spot rate). Since the forward and spot rates are in logs and the differences are multiplied by 100, the three variables are on a percent per month basis.

The standard deviations of $F_t - S_{t+1}$ in table 1 are larger than the standard deviations of $S_{t+1} - S_t$. Thus, in terms of standard deviation of forecast errors, the current spot rate is a better predictor of the future spot rate than the current forward rate. However, variation in the premium component of the forward rate can obscure the power of the prediction of the future spot rate in the forward rate. This is the problem that the complementary regressions (3) and (4) are meant to alleviate.

Consistent with the previous literature, the autocorrelations of changes in spot rates, $S_{t+1} - S_t$, are close to zero. Thus, if the expected component of the changes, $E(S_{t+1} - S_t)$, varies in an autocorrelated way, this is not evident in the behavior of the observed changes. The $F_t - S_{t+1}$ for different countries also show little autocorrelation. $F_t - S_{t+1}$ is the premium, P_t , plus the forecast error, $E(S_{t+1}) - S_{t+1}$,

Table 1: Autocorrelations, means, and standard deviations : 8/31/73-12/10/82, N = 122.*

| Country | Autocorrelations | | | | | | | | | | | | Std. | |
|----------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|-------------|-------------|-------------|-------|------|
| | ρ_1 | ρ_2 | ρ_3 | ρ_4 | ρ_5 | ρ_6 | ρ_7 | ρ_8 | ρ_9 | ρ_{10} | ρ_{11} | ρ_{12} | Mean | dev. |
| | $S_{t+1} - S_t$ | | | | | | | | | | | | | |
| Belgium | 0.05 | 0.08 | 0.07 | -0.03 | 0.02 | -0.03 | -0.01 | 0.06 | 0.14 | -0.07 | 0.20 | 0.01 | -0.25 | 3.11 |
| Canada | 0.13 | -0.24 | 0.08 | 0.05 | 0.03 | 0.00 | -0.16 | 0.06 | 0.07 | -0.15 | 0.16 | 0.03 | -0.17 | 1.12 |
| France | -0.04 | 0.06 | 0.14 | -0.02 | 0.14 | 0.04 | 0.01 | -0.02 | 0.10 | -0.12 | 0.11 | -0.01 | -0.43 | 3.01 |
| Italy | 0.01 | 0.15 | -0.03 | -0.11 | 0.09 | -0.01 | 0.09 | 0.04 | 0.14 | -0.17 | 0.12 | -0.01 | -0.73 | 2.80 |
| Japan | 0.16 | -0.11 | 0.03 | 0.13 | 0.15 | -0.09 | -0.04 | 0.07 | 0.05 | -0.09 | -0.10 | 0.11 | 0.07 | 3.05 |
| Netherlands | 0.02 | 0.05 | 0.05 | -0.14 | -0.01 | -0.01 | -0.01 | 0.04 | 0.04 | -0.06 | 0.17 | -0.02 | -0.04 | 3.01 |
| Switzerland | 0.01 | 0.08 | 0.03 | -0.11 | 0.09 | 0.01 | -0.05 | -0.08 | 0.01 | -0.04 | 0.07 | -0.01 | 0.26 | 3.76 |
| United Kingdom | 0.15 | 0.04 | 0.10 | -0.07 | 0.09 | 0.04 | 0.16 | 0.01 | 0.02 | 0.07 | 0.05 | 0.14 | -0.36 | 2.58 |
| West Germany | 0.01 | 0.08 | 0.01 | -0.13 | 0.00 | -0.04 | 0.02 | 0.06 | 0.07 | -0.05 | 0.17 | -0.00 | -0.03 | 3.08 |
| | $F_t - S_{t+1}$ | | | | | | | | | | | | | |
| Belgium | 0.11 | 0.10 | 0.08 | -0.02 | 0.02 | -0.05 | -0.03 | 0.04 | 0.11 | -0.08 | 0.19 | 0.00 | 0.09 | 3.22 |
| Canada | 0.17 | -0.21 | 0.07 | 0.04 | 0.01 | -0.01 | -0.16 | 0.04 | 0.06 | -0.14 | 0.15 | 0.02 | 0.08 | 1.16 |
| France | 0.01 | 0.09 | 0.16 | -0.01 | 0.14 | 0.04 | 0.00 | -0.02 | 0.06 | -0.10 | 0.12 | -0.01 | 0.17 | 3.10 |
| Italy | 0.08 | 0.17 | -0.02 | -0.11 | 0.07 | -0.03 | 0.08 | 0.03 | 0.11 | -0.17 | 0.07 | -0.03 | -0.07 | 2.95 |
| Japan | 0.21 | -0.05 | 0.07 | 0.13 | 0.14 | -0.09 | -0.05 | 0.05 | 0.05 | -0.07 | -0.08 | 0.12 | 0.10 | 3.15 |
| Netherlands | 0.07 | 0.08 | 0.07 | -0.11 | 0.01 | -0.00 | -0.00 | 0.04 | 0.04 | -0.05 | 0.19 | 0.01 | 0.21 | 3.08 |
| Switzerland | 0.05 | 0.10 | 0.06 | -0.09 | 0.09 | 0.01 | -0.04 | -0.08 | 0.01 | -0.02 | 0.08 | 0.01 | 0.23 | 3.82 |
| United Kingdom | 0.19 | 0.08 | 0.12 | -0.06 | 0.09 | 0.03 | 0.15 | 0.01 | 0.01 | 0.05 | 0.07 | 0.13 | 0.13 | 2.65 |
| West Germany | 0.03 | 0.09 | 0.03 | -0.12 | 0.00 | -0.04 | 0.02 | 0.05 | 0.07 | -0.04 | 0.18 | 0.02 | 0.33 | 3.12 |

Notes

Notes

| | $F_t - S_t$ | | | | | | | | | | | | | |
|----------------|-------------|------|------|------|------|------|-------|------|------|-------|------|-------|-------|------|
| Belgium | 0.67 | 0.44 | 0.33 | 0.33 | 0.18 | 0.04 | -0.01 | 0.01 | 0.00 | -0.01 | 0.00 | -0.01 | -0.16 | 0.41 |
| Canada | 0.82 | 0.63 | 0.49 | 0.38 | 0.36 | 0.32 | 0.33 | 0.36 | 0.36 | 0.35 | 0.26 | 0.23 | -0.09 | 0.17 |
| France | 0.65 | 0.45 | 0.36 | 0.28 | 0.24 | 0.18 | 0.17 | 0.18 | 0.23 | 0.28 | 0.26 | 0.23 | -0.25 | 0.44 |
| Italy | 0.68 | 0.47 | 0.37 | 0.28 | 0.23 | 0.19 | 0.18 | 0.19 | 0.19 | 0.14 | 0.03 | 0.04 | -0.80 | 0.66 |
| Japan | 0.85 | 0.69 | 0.61 | 0.47 | 0.34 | 0.30 | 0.22 | 0.16 | 0.21 | 0.24 | 0.22 | 0.20 | 0.17 | 0.64 |
| Netherlands | 0.72 | 0.55 | 0.40 | 0.28 | 0.24 | 0.20 | 0.20 | 0.23 | 0.22 | 0.21 | 0.15 | 0.09 | 0.17 | 0.32 |
| Switzerland | 0.86 | 0.73 | 0.61 | 0.52 | 0.47 | 0.46 | 0.48 | 0.49 | 0.50 | 0.49 | 0.44 | 0.40 | 0.48 | 0.37 |
| United Kingdom | 0.87 | 0.75 | 0.64 | 0.51 | 0.43 | 0.36 | 0.31 | 0.28 | 0.25 | 0.20 | 0.16 | 0.15 | -0.23 | 0.35 |
| West Germany | 0.78 | 0.56 | 0.39 | 0.26 | 0.20 | 0.20 | 0.26 | 0.34 | 0.42 | 0.46 | 0.40 | 0.33 | 0.30 | 0.24 |

*All exchange rates are U.S. dollars per unit of foreign currency. $S_{t+1} - S_t$ is the four-week change in the spot exchange rate; $F_t - S_{t+1}$ is the thirty-day forward rate minus the spot rate observed four weeks later, $F_t - S_t$ is the forward rate minus the current spot rate. The means and standard deviations of the variables are on a percent per month basis. Under the hypothesis that the true autocorrelations are 0.0, the standard error of the sample autocorrelations is about 0.09.

which should be white noise. Thus, any autocorrelation of the premium is not evident in the time series behavior of $F_t - S_{t+1}$.

The autocorrelations of $F_t - S_t$ tell a different story. The first-order autocorrelations are 0.65 or greater, and the decay of the autocorrelations at successive lags suggests a first-order autoregressive process. This is confirmed by the partial autocorrelations (not shown) which are large at lag 1 but close to zero at higher-order lags. Since $F_t - S_t$ is the premium, P_t , plus the expected change in the spot rate, $E(S_{t+1} - S_t)$, the autocorrelations of $F_t - S_t$ indicate that P_t and/or $E(S_{t+1} - S_t)$ vary in an autocorrelated way.

The difference between the behavior of the autocorrelations of $F_t - S_t$ and those of $E(S_{t+1} - S_t)$ and $F_t - S_{t+1}$ is easily explained. The standard deviations of $F_t - S_t$ are between 0.17 and 0.66 percent per month, whereas those of either $S_{t+1} - S_t$ or $F_t - S_{t+1}$ are typically greater than 3.0 percent per month. Thus, the autocorrelation of P_t and/or $E(S_{t+1} - S_t)$, which shows up in the time series behavior of $F_t - S_t$, is buried in the high variability of the unexpected components of $F_t - S_{t+1}$ and $S_{t+1} - S_t$.

Regression tests

OLS estimates

Table 2 shows the estimated regressions of $F_t - S_{t+1}$ and $S_{t+1} - S_t$ on $F_t - S_t$. Only one set of coefficient standard errors, residual standard errors and residual autocorrelations is shown for each country. This reflects the complementarity of the $F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions for each country. The intercept estimates in the two regressions sum to zero, the slope coefficients sum to one, and the sum of the two residuals is zero on a period-by-period basis.

Since the regressor $F_t - S_t$ has low variation relative to $F_t - S_{t+1}$ and $S_{t+1} - S_t$, the coefficients of determination (R_1^2 and R_2^2) for the regressions are small, and they are smaller for the $S_{t+1} - S_t$ regressions than for the $F_t - S_{t+1}$ regressions. The regression residuals, like the dependent variables, show little autocorrelation.

The anomalous numbers in table 2 are the estimates of the regression slope coefficients, β_1 and β_2 . According to (5) and (6), the slope coefficient in the regression of $F_t - S_{t+1}$ on $F_t - S_t$ contains the proportion of the variance of $F_t - S_t$ due to variation in its premium component, P_t , while the slope coefficient in the regression of $S_{t+1} - S_t$ on $F_t - S_t$ contains the proportion of the variance of $F_t - S_t$ due to variation in the expected change in the spot rate, $E(S_{t+1} - S_t)$. The coefficients clearly cannot be interpreted in terms of these

proportions alone, since the coefficients in the $S_{t+1} - S_t$ regressions are always negative so that those in the $F_t - S_{t+1}$, regressions are greater than 1.0.

Inspection of (5) and (6) indicates an explanation for the strange estimates of β_1 and β_2 . Since $\sigma^2(E(S_{t+1} - S_t))$ in (6) must be non-negative, a negative estimate of β_2 implies that

Notes

Table 2: OLS regressions : 8/31/73-12/10/82. N = 122.*

$$F_t - S_{t+1} = \hat{\alpha}_1 + \hat{\beta}_1(F_t - S_t) + \hat{\varepsilon}_{1,t+1} \quad S_{t+1} - S_t = \hat{\alpha}_2 + \hat{\beta}_2(F_t - S_t) + \hat{\varepsilon}_{2,t+1}$$

| Country | $\hat{\alpha}_1$ | $\hat{\beta}_1$ | $\hat{\alpha}_2$ | $\hat{\beta}_2$ | $s(\hat{\alpha})$ | $s(\hat{\beta})$ | R_1^2 | R_2^2 | $s(\hat{\varepsilon})$ | Residual autocorrelations | | | | | |
|----------------|------------------|-----------------|------------------|-----------------|-------------------|------------------|---------|---------|------------------------|---------------------------|----------|----------|----------|----------|----------|
| | | | | | | | | | | ρ_1 | ρ_2 | ρ_3 | ρ_4 | ρ_5 | ρ_6 |
| Belgium | 0.50 | 2.58 | -0.50 | -1.58 | 0.30 | 0.68 | 0.11 | 0.04 | 3.05 | 0.01 | 0.06 | 0.06 | -0.03 | 0.02 | 0.02 |
| Canada | 0.25 | 1.87 | -0.25 | -0.87 | 0.11 | 0.61 | 0.07 | 0.01 | 1.12 | 0.12 | -0.23 | 0.10 | 0.07 | 0.06 | 0.03 |
| France | 0.64 | 1.87 | -0.64 | -0.87 | 0.31 | 0.63 | 0.07 | 0.01 | 3.00 | -0.07 | 0.04 | 0.13 | -0.03 | 0.15 | 0.04 |
| Italy | 1.14 | 1.51 | -1.14 | -0.51 | 0.40 | 0.38 | 0.11 | 0.01 | 2.79 | -0.00 | 0.16 | -0.01 | -0.09 | 0.10 | 0.01 |
| Japan | -0.12 | 1.29 | 0.12 | -0.29 | 0.29 | 0.43 | 0.07 | 0.00 | 3.06 | 0.15 | -0.12 | 0.03 | 0.13 | 0.16 | -0.08 |
| Netherlands | -0.21 | 2.43 | 0.21 | -1.43 | 0.31 | 0.86 | 0.06 | 0.01 | 2.99 | -0.03 | 0.03 | 0.02 | -0.17 | -0.01 | -0.02 |
| Switzerland | -0.81 | 2.14 | 0.81 | -1.14 | 0.56 | 0.92 | 0.04 | 0.00 | 3.75 | -0.02 | 0.06 | 0.01 | -0.12 | 0.10 | 0.02 |
| United Kingdom | 0.57 | 1.90 | -0.57 | -0.90 | 0.28 | 0.66 | 0.06 | 0.01 | 2.57 | 0.13 | 0.03 | 0.11 | -0.06 | 0.10 | 0.05 |
| West Germany | -0.36 | 2.32 | 0.36 | -1.32 | 0.44 | 1.15 | 0.03 | 0.00 | 3.08 | -0.01 | 0.07 | 0.00 | -0.13 | 0.01 | -0.03 |

* R_1^2 and R_2^2 are the coefficients of determination (regression R^2) for the $F_t - S_{t+1}$ and $S_{t+1} - S_t$, regressions. The complete complementarity of the

$F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions for each country means that the standard errors $s(\hat{\alpha})$ and $s(\hat{\beta})$ of the estimated regression coefficients, the residual standard error $s(\hat{\varepsilon})$, and the residual autocorrelations, ρ_t , are the same for the two regressions. Under the hypothesis that the true autocorrelations are zero, the standard error of the estimated residual autocorrelations is about 0.09.

Notes

$\text{cov}(P_t, E(S_{t+1} - S_t))$ is negative and larger in magnitude than $\sigma^2(E(S_{t+1} - S_t))$. The complementary estimate of $\beta_1 > 1$ then implies that $\text{cov}(P_t, E(S_{t+1} - S_t))$ is smaller in absolute magnitude than $\sigma^2(P_t)$, and thus that $\sigma^2(P_t)$ is larger than $\sigma^2(E(S_{t+1} - S_t))$.

The non-zero covariance between P_t and $E(S_{t+1} - S_t)$ prevents us from using the regression coefficients to estimate the levels of $\sigma^2(P_t)$ and $\sigma^2(E(S_{t+1} - S_t))$. With (5) and (6), however, we can estimate the difference between the two variances as a proportion of $\sigma^2(F_t - S_t)$.

$$\beta_1 - \beta_2 = \frac{\sigma^2(P_t) - \sigma^2(E(S_{t+1} - S_t))}{\sigma^2(F_t - S_t)} \quad \dots (10)$$

The differences between the estimates of β_1 and β_2 in table 2 range from 1.58 (Japan) to 4.16 (Belgium). Except for Japan, all the differences between the estimated coefficients are greater than 2.0. Thus, the point estimates are that the difference between the variance of the premium, P_t , and the variance of the expected change in the spot rate, $E(S_{t+1} - S_t)$, in $F_t - S_t$ is typically more than twice the variance of $F_t - S_t$. Moreover, since β_1 and β_2 sum to 1.0, the estimates of the regression coefficients are perfectly negatively correlated, and the standard error of their difference is twice their common standard error. Only the estimates of $\beta_1 - \beta_2$ for Japan, Switzerland, and West Germany are less than two standard errors from zero, and all are more than 1.5 standard errors from zero. Thus, we can conclude that $\sigma^2(P_t)$ is reliably greater than $\sigma^2(E(S_{t+1} - S_t))$.

In short, negative covariation between P_t and $E(S_{t+1} - S_t)$ attenuates the variability of $F_t - S_t$, and obscures the interpretation of the regression slope coefficients in (3) and (4). Nevertheless the regression slope coefficients provide the interesting information that both the premium, P_t , and the expected change in the spot rate, $E(S_{t+1} - S_t)$, in $F_t - S_t$, vary through time, and $\sigma^2(P_t)$ is large relative to $\sigma^2(E(S_{t+1} - S_t))$.

A good story for negative covariation between P_t and $E(S_{t+1} - S_t)$ is difficult to tell. For example, in the PPP model for the exchange rate underlying (9), the dollar is expected to appreciate relative to a foreign currency, that is, $E(S_{t+1} - S_t)$ is negative, when the expected inflation rate in the U.S. is lower than in the foreign country. (Remember that the exchange rates are all expressed as dollars per unit of foreign currency.) A negative $\text{cov}(P_t, E(S_{t+1} - S_t))$ then implies a higher purchasing power risk premium in the expected real returns on dollar denominated bonds relative to foreign currency bonds when the anticipated U.S. inflation rate is low relative to the anticipated foreign inflation rate. We return to economic interpretations of the negative covariance between the P_t and $E(S_{t+1} - S_t)$ components of $F_t - S_t$ after exploring some purely statistical possibilities.

SUR estimates

The apparent negative covariation between P_t and $E(S_{t+1} - S_t)$ may be sampling error. All the slope

Notes

coefficients in the $F_t - S_{t+1}$ regressions are more than two standard errors above 0.0, but only one (Belgium) is more than two standard errors above 1.0. Equivalently, only one of the negative slope coefficients in the $S_{t+1} - S_t$ regressions (Belgium) is more than two standard errors below zero. Perhaps the appropriate conclusion is that all variation through time in $F_t - S_t$ is variation in premiums, and there is no variation in expected changes in spot rates.

Individually testing the β_1 coefficients in table 2 against 1.0 (or the β_2 coefficients against 0.0) does not provide the appropriate joint test that all $\beta_1 = 1.0$ (or all $\beta_2 = 0$). An appropriate joint test takes into account the high correlation of $F_t - S_{t+1}$ (or $S_{t+1} - S_t$) across currencies, documented in table 3. Such cross-correlation is to be expected given that (a) all exchange rates are measured relative to the U.S. dollar, and (b) most of the European countries are involved in attempts to control the movements of their exchange rates relative to one another during the sample period. Table 3 also indicates that, with the possible exception of Canada, the correlations of the regressor variable $F_t - S_t$ across countries are generally lower than the correlations of $S_{t+1} - S_t$ or $F_t - S_{t+1}$ across the countries. Thus, there is reason to suspect that joint estimation of the $F_t - S_{t+1}$ (or the $S_{t+1} - S_t$) regressions for different countries will improve the precision of the coefficient estimates.

The coefficient estimates obtained when Zellner's (1962) 'seemingly unrelated regression' (SUR) technique is used to estimate either the $F_t - S_{t+1}$ regressions for different countries or the $S_{t+1} - S_t$ regressions are summarized in part A of table 4. As anticipated, joint estimation substantially improves the precision of the estimated slope coefficients. The $s(\beta)$ in table 4 are often less than half those for the OLS estimates in table 2. Moreover, the slope coefficients in the SUR versions of the $S_{t+1} - S_t$ regressions are generally closer to zero than in the OLS regressions which means that the coefficients in the complementary $F_t - S_{t+1}$ regressions are generally closer to 1.0. (Canada and Switzerland are exceptions.)

Table 4 also shows F tests on various joint hypotheses on the coefficients. The hypothesis that all the slope coefficients β_2 in the $S_{t+1} - S_t$ regressions (or all the slope coefficients β_1 in the $F_t - S_{t+1}$ regressions) are equal is consistent with the data. However, the hypothesis that all $\beta_2 = 0.0$ (or all $\beta_1 = 1.0$) yields

Table 3: Correlations of $S_{t+1} - S_t$, $F - S_{t+1}$ and $F_t - S_t$ across countries.

| | Belgium | Canada | France | Italy | Japan | Netherlands | Switzer- land | United Kingdom | West Germany |
|-----------------|---------|--------|--------|-------|-------|-------------|------------------|-------------------|-----------------|
| $S_{t+1} - S_t$ | | | | | | | | | |
| Belgium | 1.00 | | | | | | | | |
| Canada | 0.19 | 1.00 | | | | | | | |
| France | 0.84 | 0.18 | 1.00 | | | | | | |
| Italy | 0.69 | 0.10 | 0.77 | 1.00 | | | | | |
| Japan | 0.52 | 0.04 | 0.56 | 0.48 | 1.00 | | | | |
| Netherlands | 0.94 | 0.19 | 0.85 | 0.72 | 0.50 | 1.00 | | | |
| Switzerland | 0.81 | 0.13 | 0.76 | 0.64 | 0.53 | 0.81 | 1.00 | | |
| United Kingdom | 0.57 | 0.18 | 0.54 | 0.54 | 0.46 | 0.56 | 0.51 | 1.00 | |
| West Germany | 0.94 | 0.17 | 0.84 | 0.71 | 0.54 | 0.96 | 0.85 | 0.53 | 1.00 |
| $F_t - S_{t+1}$ | | | | | | | | | |
| Belgium | 1.00 | | | | | | | | |
| Canada | 0.20 | 1.00 | | | | | | | |
| France | 0.85 | 0.16 | 1.00 | | | | | | |

Notes

| | | | | | | | | | |
|----------------|------|------|------|-------------|------|------|------|------|------|
| Italy | 0.69 | 0.07 | 0.74 | 1.00 | | | | | |
| Japan | 0.51 | 0.07 | 0.55 | 0.46 | 1.00 | | | | |
| Netherlands | 0.94 | 0.20 | 0.85 | 0.71 | 0.51 | 1.00 | | | |
| Switzerland | 0.80 | 0.14 | 0.76 | 0.61 | 0.55 | 0.80 | 1.00 | | |
| United Kingdom | 0.55 | 0.16 | 0.51 | 0.51 | 0.47 | 0.56 | 0.50 | 1.00 | |
| West Germany | 0.93 | 0.18 | 0.84 | 0.69 | 0.56 | 0.96 | 0.85 | 0.53 | 1.00 |
| | | | | $F_t - S_t$ | | | | | |
| Belgium | 1.00 | | | | | | | | |
| Canada | 0.55 | 1.00 | | | | | | | |
| France | 0.57 | 0.43 | 1.00 | | | | | | |
| Italy | 0.59 | 0.43 | 0.51 | 1.00 | | | | | |
| Japan | 0.31 | 0.12 | 0.36 | 0.32 | 1.00 | | | | |
| Netherlands | 0.54 | 0.40 | 0.31 | 0.49 | 0.49 | 1.00 | | | |
| Switzerland | 0.38 | 0.25 | 0.51 | 0.43 | 0.77 | 0.59 | 1.00 | | |
| United Kingdom | 0.45 | 0.36 | 0.31 | 0.47 | 0.65 | 0.74 | 0.63 | 1.00 | |
| West Germany | 0.49 | 0.50 | 0.52 | 0.49 | 0.73 | 0.69 | 0.88 | 0.72 | 1.00 |

^a $S_{t+1} - S_t$ is the four-week change in the spot exchange rate : $F_t - S_{t+1}$ is the thirty-day forward rate minus the spot rate observed four weeks later; $F_t - S_t$ is the forward rate minus the current spot rate.

Table 4: SUR regressions : 8/31/73–12/10/82, N = 122.^a

| $F_t - S_{t+1} = \hat{\alpha}_1 + \hat{\beta}_1 (F_t - S_t) + \hat{\varepsilon}_{1,t+1}, S_{t+1} - S_t = \hat{\alpha}_2 + \hat{\beta}_2 (F_t - S_t) + \hat{\varepsilon}_{2,t+1}.$ | | | | |
|---|---|---------------------------------------|-------------------|------------------|
| Part A : Unconstrained | | | | |
| Country | $\hat{\alpha}_2 (= -\hat{\alpha}_1)$ | $\hat{\beta}_2 (= 1 - \hat{\beta}_1)$ | $s(\hat{\alpha})$ | $s(\hat{\beta})$ |
| Belgium | -0.36 | -0.72 | 0.28 | 0.24 |
| Canada | -0.26 | -1.04 | 0.11 | 0.59 |
| France | -0.48 | -0.21 | 0.28 | 0.30 |
| Italy | -1.08 | -0.44 | 0.32 | 0.24 |
| Japan | 0.12 | -0.28 | 0.28 | 0.35 |
| Netherlands | 0.10 | -0.78 | 0.27 | 0.25 |
| Switzerland | 0.81 | -1.15 | 0.42 | 0.50 |
| United Kingdom | -0.52 | -0.69 | 0.26 | 0.51 |
| West Germany | 0.23 | -0.89 | 0.29 | 0.32 |
| F tests | 1. All β_2 (or β_1) equal F = 0.73 P level = 0.66 2. All α_2 (or α_1) equal F = 5.14 P level = 0.0001 3. All $\beta_2 = 0.0$ (or $\beta_1 = 1.0$) F = 2.81 P level = 0.003 | | | |

Notes

| Part B : Constrained | | | | | | | | | | |
|----------------------|-------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|-----------------------|-----------------------|
| $S_{t+1} - S_t =$ | $\hat{\alpha}_B +$ | $\hat{\alpha}_C +$ | $\hat{\alpha}_F +$ | $\hat{\alpha}_I +$ | $\hat{\alpha}_J +$ | $\hat{\alpha}_N +$ | $\hat{\alpha}_S +$ | $\hat{\alpha}_{UK} +$ | $\hat{\alpha}_{WG} +$ | $\beta_2 (F_t - S_t)$ |
| | - 0.34 | - 0.22 | - 0.57 | - 1.20 | 0.17 | 0.07 | 0.54 | - 0.49 | 0.14 | - 0.58 |
| | (0.28) | (0.10) | (0.27) | (0.27) | (0.28) | (0.27) | (0.35) | (0.23) | (0.28) | (0.13) |
| <i>F test</i> | All α equal $F = 5.68$ | | | | | P level = 0.0001 | | | | |

^aLike the OLS regressions in table 2, the SUR regressions are completely complementary; that is, the intercepts in the $F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions sum to 0.0, the slopes sum to 1.0, and the residuals sum to 0.0 period-by-period. The subscripts on the $\hat{\alpha}$ in the constrained $S_{t+1} - S_t$ regressions indicate countries.

a test statistic far out in the tail of the F distribution (beyond the 0.997 fractile) which suggests rejection of the hypothesis. Thus, we are left with the uncomfortable conclusion that the negative estimates of β_2 in the regressions of $S_{t+1} - S_t$ on $F_t - S_t$ are the result of negative covariation between the P_t and $E(S_{t+1} - S_t)$ components of $F_t - S_t$.

Finally, since the hypothesis that the slope coefficients in the $S_{t+1} - S_t$ (or $F_t - S_{t+1}$) regressions are equal across countries is consistent with the data, we can use the SUR technique to estimate the regressions subject to the equality constraint. The results for the $S_{t+1} - S_t$ regressions are shown in part B of table 4. For all but three countries (France, Italy and Japan) the constrained estimate of β_2 , - 0.58, is closer to 0.0 than the unconstrained estimate in part A of the table. However, constraining the estimate of β_2 to be equal across countries so lowers the standard error of the estimate that β_2 is now more than four standard errors from 0.0.

Subperiod results

Some argue that the nature of the flexible exchange rate system during our sample period is not well understood by market participants until the late 1970's. [See, for example, Hansen and Hodrick (1983).] Thus, the properties of forward exchange rates as predictors of future spot rates may be different during later years. To check on this possibility, the tests in tables 1 to 4 are replicated for the two 61-month subperiods covered by the data. The results are summarized in tables 5 to 7. The subperiod results also help to alleviate any statistical problems caused by changes in variance during the sample period.

There are some differences between the two subperiods. For example, the summary statistics of table 5 document an increase in the variability of $S_{t+1} - S_t$ and $F_t - S_{t+1}$ for the later period. There is no corresponding increase in the variability of $F_t - S_t$. The implied conclusion is that the higher variability of $S_{t+1} - S_t$ and $F_t - S_{t+1}$ in later years reflects increased uncertainty about the *ex post* change in the spot rate with no corresponding increase in the variability of the *ex ante* $E(S_{t+1} - S_t)$ and P_t components of $F_t - S_t$.

The mean values of the variables do not suggest improved market forecasts of future spot rates during the later subperiod. The mean of $F_t - S_t$ more often has the same sign as the mean of $S_{t+1} - S_t$ during the earlier subperiod (seven of nine versus five of nine for the later period). Moreover, although the dollar appreciates relative to all nine currencies during the later period (the means of $S_{t+1} - S_t$ are all negative), all the means of $F_t - S_t$ move upward. Thus, either the forward rate on average becomes a less rational predictor of the future spot rate during the later period, or, as suggested by the regression results, there is opposite movement in the premium component of $F_t - S_t$ which more than offsets movement in the expected change in the spot rate.

Table 5: OLS regressions for 61-month subperiods.^a**Notes**

$$F_t - S_{t+1} = \hat{\alpha}_1 + \hat{\beta}_1 (F_t - S_t) + \hat{\varepsilon}_{1,t+1}, \quad S_{t+1} - S_t = \hat{\alpha}_2 + \hat{\beta}_2 (F_t - S_t) + \hat{\varepsilon}_{2,t+1}$$

| Country | $\hat{\alpha}_2 (= -\hat{\alpha}_1)$ | $\hat{\beta}_2 (= 1 - \hat{\beta}_1)$ | $s(\hat{\alpha})$ | $s(\hat{\beta})$ | R_1^2 | R_2^2 | $s(\hat{\varepsilon})$ | ρ_1 |
|--|--------------------------------------|---------------------------------------|-------------------|------------------|---------|---------|------------------------|----------|
| First subperiod : 8/31/ 73-4/ 7/ 78 | | | | | | | | |
| Belgium | - 0.20 | - 1.42 | 0.40 | 0.83 | 0.13 | 0.05 | 2.55 | 0.05 |
| Canada | - 0.25 | - 0.32 | 0.16 | 0.77 | 0.05 | 0.00 | 1.01 | 0.19 |
| France | - 0.79 | - 1.38 | 0.51 | 0.87 | 0.11 | 0.04 | 2.48 | 0.06 |
| Italy | - 1.17 | - 0.51 | 0.60 | 0.47 | 0.15 | 0.02 | 2.58 | 0.17 |
| Japan | 0.37 | 0.31 | 0.29 | 0.42 | 0.04 | 0.01 | 2.18 | 0.20 |
| Netherlands | 0.31 | - 1.22 | 0.34 | 1.14 | 0.06 | 0.02 | 2.68 | 0.04 |
| Switzerland | 0.52 | 0.81 | 0.47 | 1.40 | 0.00 | 0.01 | 2.88 | 0.10 |
| United Kingdom | - 0.47 | 0.02 | 0.52 | 1.04 | 0.02 | 0.00 | 2.35 | 0.14 |
| West Germany | 0.62 | - 2.60 | 0.45 | 2.12 | 0.05 | 0.03 | 2.65 | 0.14 |
| Second subperiod : 5/5/78-12/10/82 | | | | | | | | |
| Belgium | - 0.74 | - 1.32 | 0.45 | 1.18 | 0.06 | 0.02 | 3.50 | - 0.02 |
| Canada | - 0.23 | - 1.64 | 0.17 | 0.98 | 0.11 | 0.05 | 1.22 | 0.06 |
| France | - 0.70 | - 0.22 | 0.45 | 1.11 | 0.02 | 0.00 | 3.47 | - 0.12 |
| Italy | - 1.15 | - 0.60 | 0.58 | 0.80 | 0.06 | 0.01 | 3.04 | - 0.12 |
| Japan | 0.82 | - 1.84 | 0.92 | 1.46 | 0.06 | 0.03 | 3.72 | 0.11 |
| Netherlands | 0.02 | - 1.18 | 0.73 | 1.77 | 0.03 | 0.01 | 3.32 | - 0.06 |
| Switzerland | 1.66 | - 2.44 | 1.98 | 2.50 | 0.03 | 0.02 | 4.47 | - 0.06 |
| United Kingdom | - 0.36 | - 2.83 | 0.35 | 1.12 | 0.17 | 0.10 | 2.71 | - 0.03 |
| West Germany | - 0.30 | - 0.04 | 1.05 | 2.10 | 0.00 | 0.00 | 3.48 | - 0.09 |

^a R_1^2 and R_2^2 are the coefficients of determination (regression R^2) for the $F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions.

The complete complementarity of the $F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions for each country means that the standard errors $s(\hat{\alpha})$ and $s(\hat{\beta})$ of the estimated regression coefficients, the residual standard error

$s(\hat{\varepsilon})$, and the residual autocorrelation ρ_1 are the same for the two regressions.

On the other hand, the key aspects of the regression results in tables 6 and 7 are similar for the two subperiods. The slope coefficients in the regressions of $S_{t+1} - S_t$ on $F_t - S_t$ are generally negative, which means that the coefficients in the complementary regressions of $F_t - S_{t+1}$ on $F_t - S_t$ are generally greater than 1.0. In the SUR tests, the hypothesis that all the slope coefficients in the $S_{t+1} - S_t$ regressions are 0.0 (or that the coefficients in the $F_t - S_{t+1}$ regressions are 1.0) is easily rejected in either subperiod.

Under the maintained hypothesis that the market assessments of $E(S_{t+1} - S_t)$ in $F_t - S_t$ are efficient or rational, the subperiod results confirm the earlier conclusions that (a) there is variation in both the P_t and $E(S_{t+1} - S_t)$ components of $F_t - S_t$, (b) the variance of the premium component of $F_t - S_t$ is large relative to the variance of the expected change in the spot rate, and (c) negative covariation between P_t and $E(S_{t+1} - S_t)$ dominates the variance of $E(S_{t+1} - S_t)$ to produce negative slope coefficients in the regressions of $S_{t+1} - S_t$ on $F_t - S_t$.

Notes

Interpretations

Various explanations of the results are suggested by the existing literature and by readers of earlier versions of this paper. Some of these explanations are discussed now. No explanation is necessarily complete, and they are not mutually exclusive. Moreover, generous readers of earlier drafts are not responsible for my paraphrasing of their comments.

An inefficient foreign exchange market

The interpretation of the results above is based on the hypothesis that the assessment of $E(S_{t+1} - S_t)$ in $F_t - S_t$ is efficient or rational. An alternative hypothesis is that the negative slope coefficients in the regressions of $S_{t+1} - S_t$ on $F_t - S_t$ reflect assessments of $E(S_{t+1} | S_t)$ that are consistently perverse relative to the true expected value of the change in the spot rate. The large positive coefficients in the $F_t - S_{t+1}$ regressions are then a simple consequence of the complementarity of the $F_t - S_{t+1}$ and $S_{t+1} - S_t$ regressions rather than manifestation of movement in rationally determined premiums. Under this interpretation, the similarity of the regression results for the two subperiods indicates that market irrationality in forecasting exchange rates is not cured by continued experience with flexible exchange rates.

Government intervention in the spot exchange market

A kind of 'market inefficiency', suggested by Richard Roll, can result from government intervention in the spot foreign exchange market. For example, suppose forward rates are determined by the interest rate parity condition (7) and interest rates in different countries rationally reflect their expected inflation rates. Left to the open market forces suggested by purchasing power parity, spot exchange rates would tend to move in the direction implied by the forward-spot differential $F_t - S_t$. Government logic and obstinacy, however, may be inversely related to natural market forces. Governments may support their currencies more vigorously (through open market operations, trade restrictions, and restrictions on capital flows) the stronger are the market forces, like differential expected inflation rates, which indicate that the currency should depreciate. They may try to move back toward a free market equilibrium by changing the direction of the underlying factors pressuring the exchange rate, like differential inflation rates, rather than by letting adjustments take place through the exchange rate.

The doomsday theory

Michael Mussa suggests that there are episodes, often brief, during which the distribution of anticipated changes in exchange rates is highly skewed. For example, market participants may assess a small probability that a country will change its monetary policy so that its inflation rate will rise dramatically relative to other countries. The result may be a highly skewed distribution of anticipated inflation rates, which in turn increases interest rate differentials and forward-spot exchange rate differentials between this country and other countries. Since the phenomenon centers on skewness that exists for brief periods, the *ex post* drawings from the distributions of anticipated inflation rates and changes in exchange rates are likely to be below the *ex ante* means. This creates negative sample correlations between changes in exchange rates and forward-spot differentials which would not be observed if the skewed distributions were sampled over longer periods.

Stochastic deviations from purchasing power parity

Stockman (1980) and Lucas (1982) develop international models in which shocks to real activity work in part through money demand functions to drive changes in inflation and exchange rates. Fama (1982) also argues that through the workings of a standard money demand function and inertia in money supply, variation in anticipated real activity in the U.S. leads to variation in expected inflation of the opposite sign. Fama and Gibbons (1982) argue that expected real returns on U.S. nominal bonds are also driven by and move in the same direction as anticipated real activity. With a somewhat different story in which monetary shocks cause changes in real variables, Tobin (1965) and Mundell (1963) likewise conclude that the expected real and expected inflation components of nominal interest rates are negatively correlated.

Notes

Suppose (a) interest rate parity holds; (b) expected changes in exchange rates reflect expected inflation differentials; and (c) the expected real components of nominal interest rates can vary somewhat independently across countries in response to purely domestic factors. These conditions, along with either the Tobin-Mundell or Fama-Gibbons stories for negative correlation between the expected real and expected inflation components of nominal interest rates, imply negative correlation between the premium, P_t , and the expected change in the spot rate, $E(S_{t+1} - S_t)$, in the forward-spot differential, $F_t - S_t$.

To complete this story, however, we need a subplot to explain how the expected real returns on the nominal bonds of a country can vary in response to domestic factors that do not necessarily imply variation in the risks of the bonds. Segmented international capital markets can produce this result, but then the interest rate parity part of the story is likely to be lost. Alternatively, John Bilson suggests that such independent variation in the expected real returns on the nominal bonds of different countries can arise in open international capital markets when stochastic deviations from purchasing power parity (PPP) lead to strong preferences for borrowing and lending contracts denominated in one's domestic unit of account. Stulz (1981) provides a formal version of this kind of model in which deviations from PPP are due to the existence of nontraded goods. The Stulz model, in turn, can be viewed as a generalization of the Stockman (1980) and Lucas (1978, 1982) models.

Self-Assessment

1. Choose the correct options:

- (i) If the U.S. dollar depreciates in terms of the Euro:
 - (a) European goods would be cheaper for Americans.
 - (b) The relative price of U.S. exports would rise.
 - (c) Americans would have to pay fewer dollars for one Euro.
 - (d) American goods would be cheaper for Europeans.
- (ii) What accounts for most of the activity in the foreign exchange market?
 - (a) Trading by financial institutions
 - (b) Currency trade among central banks
 - (c) Trading currency between importers and exporters
 - (d) Interbank trading
- (iii) Which of the following is NOT a major currency trading center?

| | |
|---------------|------------|
| (a) Frankfurt | (b) Tokyo |
| (c) New York | (d) London |
| (e) Chicago | |
- (iv) If a contract contains a promise that a specified amount of foreign currency will be delivered on the specified date in the future, this is:

A swap.

| | |
|--------------------------------|-------------------------|
| (a) A foreign exchange option. | (b) A futures contract. |
| (c) A forward contract. | (d) A spot contract. |
- (v) A saver will prefer asset X to asset Y if:

| | |
|---|-----------------------------|
| (a) Asset X is less risky. | (b) Asset X is more liquid. |
| (c) Asset X has a higher expected return. | (d) All of the above. |
| (e) None of the above. | |

14.3 Summary

- Large positive autocorrelations of the difference between the forward rate and the current spot rate indicate variation through time in either the premium component of $F_t - S_t$ or in the

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assessment of the expected change in the spot rate. Moreover, slope coefficients in the regressions of $F_t - S_{t+1}$ and $S_{t+1} - S_t$ on $F_t - S_t$ that are reliably different from zero imply variation in both components of $F_t - S_t$. However, negative covariation between P_t and $E(S_{t+1} - S_t)$ leads to negative slope coefficients in the regressions of $F_t - S_t$ and preempts accurate measurement of the variances of P_t and $E(S_{t+1} - S_t)$. Given market efficiency or rationality, the only conclusion we can draw from the negative slope coefficients in the $S_{t+1} - S_t$ regressions and slope coefficients greater than 1.0 in the complementary regressions of $F_t - S_{t+1}$ on $F_t - S_t$ is that the variance of the P_t component of $F_t - S_t$ is much larger than the variance of $E(S_{t+1} - S_t)$.

- Any forward rate can be interpreted as the sum of a premium and an expected future spot rate. Thus, our regression approach to examining the components of forward rates has broad applicability to financial and commodity market data. In Fama (1984), I apply the approach to forward and spot interest rates on U.S. Treasury bills, with somewhat more success. For example, unlike the forward exchange rate, which seems primarily to reflect variation in its premium component, the difference between the forward one month interest rate for one month ahead and the current one month spot interest rate, $F_t - R_t$, splits roughly equally between variation in its premium component and variation in the expected change in the one month spot interest rate. Moreover, in the interest rate data, $F_t - R_t$ sometimes has a larger variance than the *ex post* change in the one month spot interest rate, $R_{t+1} - R_t$. Perhaps as a consequence, the *ex ante* $F_t - R_t$ explains from 15 to 70 percent of the variance of the *ex post* change in the spot interest rate, $R_{t+1} - R_t$. All of this is in striking contrast to the weak and somewhat perplexing picture that emerges from the exchange rate data, where variation in the *ex ante* forward-spot differential, $F_t - S_t$, is always small relative to the variation of the *ex post* change in the spot rate, $S_{t+1} - S_t$.

14.4 Key-Words

- Exchange rate : Rate at which one may be converted into another. The exchange rate is used when simply converting one currency to another (such as for the purposes of travel to another country), or for engaging in speculation or trading in the foreign exchange market. There are a wide variety of factors which influence the exchange rate, such as interest rates, inflation, and the state of politics and the economy in each country, also called rate of exchange or foreign exchange rate or currency exchange rate.

14.5 Review Questions

- What is the meaning of Exchange Rate? Explain.
- Discuss the components exchange rate.

Answers: Self-Assessment

- (i) (a) (ii) (d) (iii) (e) (iv) (b) (v) (d)

14.6 Further Readings

- Bilson, John F.O., 1981, The speculative efficiency hypothesis. Journal of Business 54, July, 435-451.
- Breeden, Douglas T., 1979, An intertemporal asset pricing model with stochastic consumption and investment opportunities, Journal of Financial Economics 7, Sept., 265-296.
- Domowitz, Ian and Craig S. Hakkio, 1983, Conditional variance and the risk premium on the foreign exchange market, Manuscript, Sept.
- Fama, Eugene F. 1982, Inflation, output and money, Journal of Business 55, April, 201-231.

Unit 15 : Theories of Determination of Exchange Rate (PPP, Monetary)

Notes

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Introduction

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Objectives

After reading this Unit students will be able to:

- Discuss the Purchasing Power Parity Theory.
- Explain the Monetary Models of Exchange Rate Determination.

Introduction

Many theories there have been written in respect to the main determinant of future exchange rates. Although the majority of these theories give adequate reasons in order to explain what actually determines the rates between the currencies, we can argue that there are many factors that may cause a currency fluctuation. Consequently, there is little that can be alleged in respect to the theory that better answers the question of what finally determines the exchange rates.

Here below, we will refer to the main theories regarding the determinants of the exchange rates.

15.1 The Purchasing Power Parity Theory

The purchasing power parity (PPP) theory was developed by Gustav Cassel in 1920 to determine the exchange rate between countries on inconvertible paper currencies. The theory states that equilibrium exchange rate between two inconvertible paper currencies is determined by the equality of their purchasing power. In other words, the rate of exchange between two countries is determined by their relative price levels. The theory can be explained with the help of an example.

Suppose India and England are on inconvertible paper standard and by spending Rs. 60, the same bundle of goods can be purchased in India as can be bought by spending £ 1 in England. Thus according to the purchasing power parity theory, the rate of exchange will be Rs. 60 = £ 1.

If the price levels in the two countries remain the same but the exchange rate moves to Rs. 50 = £ 1. This means that less rupees are required to buy the same bundle of goods in India as compared to £ 1 in England. It is a case of *overvaluation* of the exchange rate. This will encourage imports and discourage exports by India. As a result, the demand for pounds will increase and that of rupees will fall. This process will ultimately restore the normal exchange rate of Rs. 60 = £ 1. In the converse case, if the exchange rate moves to Rs. 70 = £ 1, the Indian currency become *undervalued*. As a result, exports are encouraged and imports are discouraged. The demand for rupees will rise and that for pounds will fall so that the normal exchange rate of Rs. 60 = £ 1 will be restored.

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According to the theory, the exchange rate between two countries is determined at a point which expresses the equality between the respective purchasing powers of the two currencies. This is the purchasing power parity which is a moving par and not fixed par (as under the gold standard). Thus with every change in price level, the exchange rate also changes. To calculate the equilibrium exchange rate, the following formula is used :

$$R = \frac{\text{Domestic Price of a Foreign Currency} \times \text{Domestic Price Index}}{\text{Foreign Price Index}}$$

This is what the formula does. Let us explain it in terms of our above example. Before the change in the price level, the exchange rate was Rs. 60 = £ 1. Suppose the domestic (Indian) price index rises to 300 and the foreign (England) price index rises to 200, thus the new equilibrium exchange rate will be

$$R = \frac{£1 \times 300}{200} = £ 1.5$$

or

$$\text{Rs. 60} = £ 1.5$$

This will be the purchasing power parity between the two countries. In reality, the parity will be modified by the cost of transporting goods including duties, insurance, banking and other charges. These costs of transporting goods from one country to another are, in fact, the limits within the exchange rate can fluctuate depending upon the demand and supply of a country's currency. There is the upper limit, called the commodity export point; and the lower limit, known as the commodity import point. (These limits are not as definite as the gold points under the mint par theory).

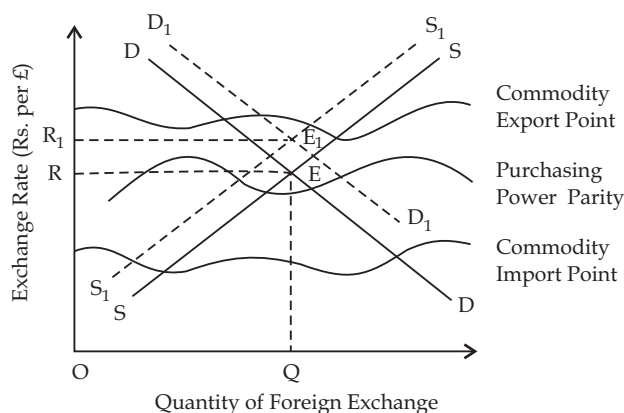


Figure 15.1

The purchasing power parity theory is illustrated in Figure 1 where DD is the demand curve for foreign currency (pound in our example) and SS is the supply curve of currency. OR is the rate to exchange of rupees per £, which is determined by their intersection at point E so that the demand for the supply of foreign exchange equals OQ quantity. Suppose the price level rises in India and remains constant in England. This makes Indian exports costly in England and imports from England relatively cheaper in India. As a result, the demand for pounds increases and the supply of pounds decreases. Now the DD curve shifts upward to the right to D_1D_1 and the SS curve to the left to S_1S_1 . The new equilibrium exchange rate is set at OR_1 rupees per pound, which represents the new purchasing power parity. The exchange rate rises by the same percentage as the India price level. The purchasing power curve shows that with relative change in the price levels, the exchange rate tends to fluctuate along this curve above or below the normal exchange rate. But there is a limit upto which the purchasing power parity curve can move up and down. The upper and lower limits are set by the commodity export point and the commodity import point respectively.



According to Cassel, the purchasing power parity is “determined by the quotients of the purchasing powers of the different currencies.”

Its Criticisms. Cassell's PPP theory became very popular among economists during 1914-24 and was widely accepted as a realistic explanation of the determination of foreign exchange rate under inconvertible paper currencies. But it has been severely criticised for its weak theoretical base. Some of the criticisms are discussed as under :

1. One of the serious defects of the theory is that of calculating the price levels in the two countries. The use of index number in calculations presents many difficulties such as the base year, coverage and method of calculation. These may not be the same in both countries. The two countries may not include the same types of commodities in calculating the index numbers. Such difficulties make the index numbers only a rough guide for measuring the price levels and thus fail to give the correct purchasing power parity between the two countries.
2. According to the theory, the purchasing power parity between two countries is determined by comparing their general price levels. But the price level may be made up of internally traded plus internationally traded goods, or of the internationally traded goods. If the price level is calculated in terms of the internally traded goods, then the prices tend to equality in both countries, even allowing for the cost of transportation, tariffs, etc. Thus, according to Keynes, “confined to internationally traded commodities, the purchasing power parity becomes an empty truism.” On the other hand, if the price level includes both internally and internationally traded goods, then price of internally traded goods may move in the opposite direction of internationally traded goods, at least in the short period. Thus the real exchange rate may not conform to the parities.
Further, if the price level includes both types of goods, there is technical difficulty of people spending their money differently in the two countries, so that the basis for complete and accurate comparisons of price levels is lacking.
3. Another weakness of the purchasing power parity theory is that it applies to countries whose balance of payments is determined by the merchandise trade account. It is, therefore, not applicable to such countries whose exchange rate is influenced more by capital account.
4. The theory assumes the balance of payments to be in equilibrium in the base period for the determination of the new equilibrium exchange rate. This is a serious defect, because it is difficult to find the base year when the exchange rate was initially in equilibrium.
5. The theory is also based on the assumption that there have been no structural changes in the factors underlying the equilibrium in the base period. Such factors are changes in technology, resources, tastes, etc. This assumption is highly unrealistic because changes are bound to take place in these factors which, in turn, are likely to affect exchange rate.
6. The theory is based on the assumption of zero-capital movements. There are many items in the balance of payments such as insurance, shipping, and banking transactions, capital movements, etc. which are not affected by changes in the general price level. But these items affect the exchange rate by influencing the demand for and supply of foreign currencies. The theory is thus weak for it neglects the influence of these factors in determining the exchange rate.
7. The theory further assumes that changes in the price level bring about changes in exchange rates. But changes in exchange rates do affect the price level. For instance, if the external value of rupee falls, imports will become dearer. As a result, the costs and prices of goods using imported materials will rise. On the other hand, exports will become cheaper with fall in the external value of the rupee. Consequently, their demand will increase which will raise the demand for factors used for producing exports, and their prices will also rise. Thus changes in exchange rate do influence the price level.
8. Again, the theory assumes that the barter terms of trade do not change between the two trading

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- countries. This assumption is unrealistic because the barter terms of trade constantly change due to changes in the demand for foreign goods, in the volume of external loans, in the supply of exported goods, in transport Costs etc.
9. The theory is based on the assumption of free trade and laissez faire policy. But governments do not follow these policies these days. Rather, they impose a number of restrictions on the movement of goods between countries. Such trade restrictions are tariff, import quotas, customs duties and various exchange control devices which tend to reduce the volume of imports. These, in turn, cause wide deviations between the actual exchange rate and the exchange rate set by the purchasing Power Parity.
 10. The equilibrium exchange rate may not be determined by the purchasing power parity between the two Countries. Rath, a sudden increase in the demand for goods of one country may raise the demand for its currency on the part of the other country. This will lead to a rise in the exchange rate.
 11. Ragner Nurkse points out that the theory is one sided in that it is based exclusively on change in relative prices and neglects all factors that influence the demand for foreign exchange. The theory treats demand as a function of price but neglects the influence of aggregate income and expenditure on the volume and value of foreign trade, these are important factors which affect the exchange rate of a country.



Notes

According to keynes, one of the serious defects of this theory is that it fails to consider the elasticities of reciprocal demand. In fact, the exchange rate is determined not only by changes in relative prices, but also by the elasticities of recipocal demand between the two trading countries.

15.2 Monetary Models of Exchange Rate Determination

Since an exchange rate is the relative price of one nation's money in terms of the money of another nation, it is natural of think of an exchange rate as determined, at least proximately, by the outstanding stocks of these monies and by the demands to hold these stocks. This simple proposition is the starting-off point for two related but distinct classes of monetary models of exchange rate determination. The first class of monetary models, which have been widely applied in empirical studies of exchange rate behavior, expresses the current exchange rate as a function of the current stocks of domestic and foreign money and the current determinants of the demands for these monies, including domestic and foreign income and interest rates. The second class of monetary models, which has been more widely used in the-oretical work, focuses on the influence on the current exchange rate of the expected future path of money supplies and of factors affecting money demands. The distinguishing features of these two classes of models requires that they should be given separate attention.

The essential content of the first class of monetary models may be summarized in an equation of the form

$$e = m - m^* - (I[y, i, k] - P^* [y^*, i^*, k^*]), \quad (1)$$

where e is the logarithm of the price of foreign money in terms of domestic money, m is the logarithm of the domestic money supply, I is the logarithm of demand for domestic money (a function of domestic income, y , the domestic interest rate, i , and other factors k), and an asterisk (*) indicates variables for the foreign country. In some presentations, equation (15.1) is derived from the following assumptions: (1) The logarithm of the domestic price level, P , is determined by domestic money market equilibrium to be $P = m - I(y, i, k)$. (2) The logarithm of the foreign price level, P^* , is determined by the foreign money market equilibrium condition to be $P^* = m^* - P^*(y^*, i^*, k^*)$. (3) The equilibrium exchange rate is determined by the requirement of purchasing power parity to be $e = P - P^* = m - m^* - (I[y, i, k] - P^*[y^*, i^*, k^*])$.

Notes

Monetary models of exchange rate determination have been criticized because of the inadequacy of the assumptions used to derive equation (1). In particular, the assumption of the purchasing power parity has been criticized as not consistent with the facts, especially the facts of the 1970s. The collapse of purchasing power parity in the 1970s, however, is not (in my judgment) adequate reason for rejecting equation (1) as a model (albeit an incomplete model) of exchange rate determination. This equation can be derived without explicit reference to purchasing power parity; indeed, it can be derived from a model that allows explicitly for divergences from purchasing power parity. Moreover, some empirical studies employing equation (1) have noted that there are divergences from purchasing power parity and have argued that the conditions of money market equilibrium are more immediately relevant for determining the exchange rate (which is a freely adjusting asset price) than they are for determining national price levels. This, of course, leaves open the important question of what determines the behavior of national price levels, which in turn is an important element in explaining the behavior of real exchange rates. Nevertheless, if equation (1) worked well in explaining the behavior of nominal exchange rates, this form of monetary model of exchange rate determination would clearly make a substantial contribution to our understanding of the economic forces influencing the behavior of exchange rates.

The principal empirical difficulty with this form of monetary model is that equation (1) does not work well in explaining actual movements in nominal exchange rates, unless we take into account shifts in the demands to hold different national monies that are difficult to explain in terms of traditional arguments appearing in money demand functions. An example illustrates this difficulty as well as a set of regressions. Between October 1976 and October 1980, the British pound appreciated by 50% in terms of the United States dollar, from \$1.60 to \$2.40. During this same period, monetary aggregates in Britain grew more rapidly than corresponding monetary aggregates in the United States, while real income (a key variable affecting the demand for money) grew less rapidly in Britain than in the United States. Of course, the increase in dollar value of sterling might be explained by an increase in the demand to hold sterling combined with a decrease in the demand to hold dollars, resulting from increased confidence in the future value of sterling (due to North Sea oil and the policies of Prime Minister Thatcher) and from increased concern about the inflationary consequences of the policies of the Carter administration. However, it is difficult to take these effects into account in a rigorous and disciplined fashion in an empirical version of equation (1).

Another important deficiency of equation (1) as a model of exchange rate determination is that it does not explicitly reveal the critical role of expectations of future economic conditions in determining the current exchange rate. From equation (1), there is no immediately apparent reason why changes in exchange rates should be largely random and unpredictable, or why new information that alters expectations about future economic conditions (including supplies and demands for national monies) should induce such random and unpredictable changes in exchange rates.

The second general class of monetary models of exchange rate determination does not suffer from this deficiency. These models usually treat a small or moderate size economy that takes conditions in the rest of the world as given. The critical condition determining the exchange rate for this country is the requirement of money market equilibrium;

$$m = k + \zeta \cdot e - \eta \cdot D^e(e), \quad \zeta, \eta > 0, \quad (2)$$

where m is the logarithm of the domestic money supply, e is the logarithm of the price of foreign money in terms of domestic money, k summarizes all exogenous factors affecting the logarithm of the demand for domestic money, and $D^e(e) = E(e(t+1); t) - e(t)$ is the expected rate of change of the exchange rate. Equation (2) should be thought of as a reduced-form equilibrium condition derived from a more basic model of goods and asset market equilibrium. In this reduced form, the parameter ζ captures all of the mechanisms through which an increase in the price of foreign money increases the demand for domestic money, and the parameter η captures all of the mechanisms through which an increase in the expected rate of change of the price of foreign money affects the demand for domestic money.

Notes

Since the reduced-form demand for domestic money depends on the expected rate of change of the exchange rate, it follows that the current equilibrium exchange rate depends not only on the current values of m and k , but also on the expectation of next period's exchange rate;

$$e(t) = [1/(\zeta + \eta)] \cdot [m(t) - k(t)] + [\eta/(\zeta + \eta)] \cdot E(e(t+1); t). \quad (3)$$

Forward iteration of (3), justified by the assumption of rational expectations, leads to the conclusion that the exchange rate expected at any future date is an exponentially weighted sum of expected future differences between m and k :

$$E(e(s); t) = [\zeta/(\zeta + \eta)] \cdot \sum_{j=0}^{\infty} [\eta/(\zeta + \eta)]^j \cdot E(w(s+j); t), \quad (4)$$

where $w(u) = (1/\zeta) \cdot [m(u) - k(u)]$. The current exchange rate, $e(t) = E(e(t); t)$, is found by setting $s = t$ in (4). This result reveals the fundamental principle that the current exchange rate depends on the entire future expected path of differences between (the logarithms of) the money supply and the exogenous component of money demand.

Equation (4) may be used to decompose the change in the exchange rate into its expected and unexpected components. The expected change in the exchange rate is given by

$$D^e[e(t)] = (\zeta/(\zeta + \eta)) \cdot [E(e(t+1); t) - E(w(t); t)] \quad (5)$$

If, as is plausible to suppose, $\zeta/(\zeta + \eta)$ is on the order of one-tenth or one-twentieth, then large monthly expected changes in the exchange rate should be unlikely.¹ In contrast, the unexpected change in the exchange rate is given by

$$D^u[e(t)] = (\zeta/(\zeta + \eta)) \cdot \sum_{j=0}^{\infty} (\eta/(\zeta + \eta))^j \cdot [E(w(t+j+1); t+1) - E(w(t+j+1); t)]. \quad (6)$$

If the new information received between t and $t+1$ leads to a substantial revision of expectations concerning all future w 's (in the same direction), this random and unpredictable component of the change in the exchange rate could be quite large.

To proceed with the analysis of changes in the exchange rate, it is necessary to specify how expectations about m and k are formed and revised. One convenient *theoretical* assumption is that k is a known constant, \bar{k} , that the money supply is observed each period before the exchange rate is determined, and that the stochastic process generating the money supply is known to economic agents and used by them (together with data on the present and past money supplies) to project the future course of the money supply. To be specific, suppose that m is generated by a random walk plus noise but that economic agents observe only m and not its permanent (random walk) and transitory (noise) components. In this case, economic agents will form an estimate $\hat{m}(t)$, of the current level of the permanent component of m by taking a weighted average of present and past m 's, and they will attribute the difference, $m(t) - \hat{m}(t)$, to the present transitory component of m . The expected level of

1. In order to have an interest elasticity of money demand (given by $i \cdot \eta$) equal to 0.1, when the nominal interest rate is 1% per month, we must have $\eta = 10$. If $\zeta = 1$, as it would under strict purchasing power parity and no currency substitution, then $\zeta/(\zeta + \eta)$ would equal $1/11$. If the interest elasticity of money demand were as large as 0.2 and ζ were as small as 0.5, then $\zeta/(\zeta + \eta)$ would be as small as $1/41$.

m in any future period will equal $\hat{m}(t)$. The current exchange rate, $e(t) = (1/\zeta) \cdot [\hat{m}(t) - \bar{k}] + [1/(\zeta + \eta)] \cdot [m(t) - \hat{m}(t)]$, fully reflects the component of the money supply that is thought to be permanent, but is less strongly affected by the component of the money supply that is thought to be transitory. The expected change in the exchange rate, $D^e[e(t)] = -[1/(\zeta + \eta)] \cdot [m(t) - \hat{m}(t)]$, reflects the expected disappearance of the transitory component of m . The information received by economic agents between t and $t + 1$ is measured by difference between the actual level of $m(t + 1)$ and the level that was expected at time t , $E[m(t + 1); t] - \hat{m}(t)$. A fraction, α , of this difference is attributed to an increase in the permanent component of m , and the remaining fraction, $1 - \alpha$, is attributed to the transitory component in $m(t + 1)$, where the fraction α is an increasing function of the ratio of the variance of disturbances to the permanent component of m to the variance of transitory disturbances to the permanent component of m to the variance of transitory disturbances to m .

The unexpected change in the exchange rate,

$$D^u[e(t)] = \{(\alpha/\zeta) + [(1 - \alpha)/(\zeta + \eta)]\} \cdot [m(t + 1) - \hat{m}(t)], \text{ reflects,}$$

as it should, the information received by economic agents between t and $t + 1$. Consistent with common sense, this unexpected change in the exchange rate is greater the greater is then deviation of the money supply from its expected level and the greater is the fraction of this deviation that is attributed to a change in the permanent component of the money supply.

This example illustrates the key point that the nature of the stochastic process governing the behavior of the exchange rate depends on the process generating the behavior of the money supply and on the information about this process that is available to economic agents. In particular, this example illustrates that the response of the exchange rate to a change in the money supply depends on the extent to which this change was unanticipated and on the extent to which any unanticipated change is thought to indicate a permanent change in the money supply.

Aside from its theoretical usefulness, however, the assumption that economic agents use their knowledge of the (fixed) stochastic process generating the money supply as the primary ingredient in forming the expectations necessary for determining the exchange rate is not likely to provide a fully adequate empirical explanation of actual exchange rate movements. One likely reason for this inadequacy is that economic agents use many sources of information, other than the observed money supply series and other easily measured variables, in forming and revising their expectations concerning future money supply behavior. For example, the depreciation of the French franc on the day following the election of President Mitterand clearly was not due to any observed policy change (registered in the behavior of the money supply or other variables) since President Mitterand did not assume office until 3 weeks later. It must have been due to a change in expectations about future policy resulting from the fact of his election.

Another important barrier to monetary explanations of actual exchange rate movements arises from the lack of adequate measures of the exogenous factors affecting the demand for money and of expectations concerning the future behavior of these factors. Almost certainly, there have been shifts in the demands to hold national monies that are not accounted for either by changes in the traditional arguments appearing in money demand functions (such as levels of national income) or by changes in expectations about future exchange rate movements induced by changes in expectations about money supply behavior. In theory, such demand shifts should play a role of coordinate importance with changes in money supplies (and changes in expectations about future money) supplies in determining movements in exchange rates. The inadequacy of measures of money demand shifts means, therefore, that a substantial fraction of actual exchange rate movements will not be adequately explained by monetary models.

One possible way around this difficulty is to adopt the view that changes in exchange rates which cannot be explained by changes in the actual or expected behavior of money supplies must be due to

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changes in the actual or expected behavior of money demands. The tautological view of the monetary model of exchange rate determination can be justified on the grounds that the money market equilibrium condition represented by equation (2) is a reduced form that incorporates all of the conditions of goods and asset market equilibrium. However, this tautological view of the monetary model still does not provide an explanation of many exchange rate movements, other than ascribing them to “shifts in money demands” arising from unknown sources. Moreover, while it is possible to view all economic forces affecting the exchange rate as operating through money demand or money supply, this may lead to a rather convoluted and unnatural view of the mechanisms through which some economic forces affect the exchange rate. In such circumstances, it is not sensible to insist on an exclusively monetary interpretation of the determination of exchange rates.

Self-Assessment

1. Choose the correct options:

- (i) The (uncovered) interest parity condition:
 - (a) Takes into account the liquidity of the assets.
 - (b) Involves forward exchange rate and spot exchange rate.
 - (c) Describes the equilibrium in the foreign exchange market.
 - (d) Takes into account the risk differential between the assets.
- (ii) If the interest rate on a deposit in Euros is 6% per year, and the Euro is expected to depreciate against the U.S. dollar by 1%, what does the interest parity condition imply about the interest rate on the deposit in U.S. dollars?
 - (a) 7%
 - (b) 5%
 - (c) 6%
 - (d) There is not enough information to find out.
- (iii) The interest parity condition involves four variables. Which one adjusts to ensure equilibrium?
 - (a) Domestic interest rate
 - (b) Foreign interest rate
 - (c) Expected future exchange rate
 - (d) Current exchange rate
- (iv) The U.S. dollar will appreciate if:
 - (a) The Euro interest rate rises.
 - (b) The U.S. interest rate falls.
 - (c) The U.S. dollar is expected to depreciate.
 - (d) The U.S. dollar is expected to appreciate

15.3 Summary

- The purchasing power parity (PPP) theory was developed by Gustav Cassel in 1920 to determine the exchange rate between countries on inconvertible paper currencies. The theory states that equilibrium exchange rate between two inconvertible paper currencies is determined by the equality of their purchasing power. In other words, the rate of exchange between two countries is determined by their relative price levels. The theory can be explained with the help of an example.
- The purchasing power parity theory is illustrated in Figure 1 where DD is the demand curve for foreign currency (pound in our example) and SS is the supply curve of currency. OR is the rate to exchange of rupees per £, which is determined by their intersection at point E so that the demand for the supply of foreign exchange equals OQ quantity. Suppose the price level

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rises in India and remains constant in England. This makes Indian exports costly in England and imports from England relatively cheaper in India. As a result, the demand for pounds increases and the supply of pounds decreases. Now the DD curve shifts upward to the right to D_1D_1 and the SS curve to the left to S_1S_1 . The new equilibrium exchange rate is set at OR_1 rupees per pound, which represents the new purchasing power parity. The exchange rate rises by the same percentage as the India price level.

- Aside from its theoretical usefulness, however, the assumption that economic agents use their knowledge of the (fixed) stochastic process generating the money supply as the primary ingredient in forming the expectations necessary for determining the exchange rate is not likely to provide a fully adequate empirical explanation of actual exchange rate movements.

15.4 Key-Words

1. Depreciation : A noncash expense that reduces the value of an asset as a result of wear and tear, age, or obsolescence. Most assets lose their value over time (in other words, they depreciate), and must be replaced once the end of their useful life is reached. There are several accounting methods that are used in order to write off an asset's depreciation cost over the period of its useful life. Because it is a non-cash expense, depreciation lowers the company's reported earnings while increasing free cash flow.
2. Appreciation : An increase in the value of an asset over time. The increase can occur for a number of reasons including increased demand or weakening supply, or as a result of changes in inflation or interest rates. This is the opposite of depreciation, which is a decrease over time

15.5 Review Questions

1. What is the purchasing power parity theory? Discuss.
2. Determine the monetary models of exchange rate.

Answers: Self-Assessment

1. (i) (c) (ii) (b) (iii) (d) (iv) (d)

15.6 Further Readings



1. Bilson, John F.O., 1981, The speculative efficiency hypothesis. *Journal of Business* 54, July, 435–451.
2. Breeden, Douglas T., 1979, An intertemporal asset pricing model with stochastic consumption and investment opportunities, *Journal of Financial Economics* 7, Sept., 265–296.
3. Domowitz, Ian and Craig S. Hakkio, 1983, Conditional variance and the risk premium on the foreign exchange market, Manuscript, Sept.
4. Fama, Eugene F. 1982, Inflation, output and money, *Journal of Business* 55, April, 201–231.

Unit 16 : Theories of Determination of Exchange Rate (Portfolio and Balance of Payments)

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Objectives

After reading this Unit students will be able to:

- Discuss the Purchasing Power Parity Theory.
- Explain the Monetary Models of Exchange Rate Determination.

Introduction

By definition, the Foreign Exchange Market is a market in which different currencies can be exchanged at a specific rate called the foreign exchange rate. We can anticipate the huge importance of the foreign exchange rate if we can just consider the influence of it on the imports and exports of a country.

For example, let's assume a currency appreciation - the euro against the US dollar. Firstly, the exports of the European Union (E.U) nations will become 'expensive' for the United States of America (USA), which among other things means that E.U product will lose in terms of competitiveness. Secondly, such a currency appreciation will be to the benefit of E.U imports, should those be payable in US dollars. Conversely, a depreciation³ of the euro against the US dollar will cause an opposite impact.

On the other hand, the rapid growth of international trade (both the import penetration⁴ and the export ratio⁵) during the last decades, which was mainly due to the increase of the open economies, enhances the significance of the foreign exchange rates.

16.1 Foreign Exchange Regimes

Undoubtedly, governments have always paid very serious attention to the exchange rate of a country's currency, utilizing any available 'means' at hand, in order to stabilize the 'desirable' range of rate.

Historically, there were periods that governments through the central banks intervened in the foreign exchange market in order to affect the fluctuation of the exchange rate that otherwise would be determined by market forces. There were also periods with no intervention when the exchange rate, just like a price (Parkin M. and King D. 1992) was determined by supply and demand.

On 22nd July, 1944, at Bretton Woods in the United States of America, 44 countries agreed that a broad international action was necessary to maintain an international monetary system, which would promote foreign trade⁶. In this respect, it established a worldwide system of fixed exchange rates between currencies. Actually, the 'tool' was gold, with the following quota: one ounce of gold was to

be worth US dollars 35. After the establishment of the fixed rate of exchange, all other currencies were pegged to the US dollar at a fixed exchange rate.

As stated in the article 'The End Of the "Fixed" Dollar', by the beginning of the 1960s, the US dollar 35 = 1 oz. gold ratio was becoming more and more difficult to sustain. Gold demand was rising and the U.S. Gold reserves were declining.

On 15th August, 1971, President Nixon, repudiated the international obligation of the U.S. to redeem its dollar in gold.

By the end of 1974, gold had soared from \$35 to \$195 an ounce.

Since the collapse of the Bretton Woods agreement (February 1973), the world's currencies have "floated" with respect to the US dollar.

Thus, the foreign exchange rate regime changed from a 'fixed exchange rate' to a 'flexible or floating exchange rate'. A system in which, exchange rates are determined by supply and demand that is called 'clean float' or where governments through central banks intervene (buy and sell currencies) in the markets, which is called 'dirty float'.



Notes

The demand for foreign exchange arises from the debit side of the balance of payments. it is equal to the value of payments made to the foreign country for goods and services purchased from it plus loans and investments made abroad.

16.2 Volatility and Risk

Undoubtedly, dramatic movements in the value of currencies can occur where the forces of supply and demand freely determine the price. Consequently, such a system increases the exchange rate risk associated with but not limited to international transactions.

The cross-border financial activity differs from the domestic activity in respect to related risk due to the fact that when investing in a foreign country you have to consider many other factors, such as:

- **Tax system:** differences related to the specific country's system.
- **Political risk:** a democratic country is preferable to a non-democratic one.
- **Government intervention:** it is also preferable to deal with a country without government intervention.
- **Business risk:** unforeseen changes in the general economic environment.
- In addition, the likely volatility in the exchange rate can drastically affect the cost, profits and return on investments of international firms, thus, resulting in the following levels of risk:
- **Economic exposure:** Transaction exposure is related to those activities that trade internationally. For example, a EU company imports bicycle components from the United States with 2 months' credit. Possible US dollar depreciation will be for the benefit of the EU organization because it will pay fewer euros. On the contrary, if the US dollar appreciates, the company will suffer a loss, due to the fact that it will pay more euros. The transaction exposure (the risk of adverse movements in the exchange rate) can be eliminated using hedging instruments. An example of this would be forward rate contracts.
- **Operational exposure.** Although a company may not trade globally, due to competitiveness, it may suffer the exchange rate risk. For example, a US bicycle producer will have a competitive advantage compared to a EU producer of a similar type of bicycle if the euro depreciates against the US dollar. The price of the US bicycle if converted into euros will fall, and consequently will attract EU members to buy it.
- **Translation exposure** Assuming a company that has a subsidiary outside the EU and expects profits in one year's time. Based on the current exchange rate between foreign and domestic

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currency, the company has converted the amount of profits in its local currency. If the euro appreciates against the local currency, then the amount of profits when converted into euros will be less.

16.3 Determinants of Exchange Rate

Many theories there have been written in respect to the main determinant of future exchange rates. Although the majority of these theories give adequate reasons in order to explain what actually determines the rates between the currencies, we can argue that there are many factors that may cause a currency fluctuation. Consequently, there is little that can be alleged in respect to the theory that better answers the question of what finally determines the exchange rates.

Here below, we will refer to the main theories regarding the determinants of the exchange rates.

1. Supply and Demand

As stated earlier, the exchange rate, just like commodities, determines its price responding to the forces of supply and demand⁸. Therefore, if for some reason people increase their demand⁹ (shift of the curve from D to D1) for a specific currency, then the price will rise from A to B, provided the supply remains stable. On the contrary, if the supply¹⁰ is increased (shift of the curve from S to S1), the price will decline from A to C, provided the demand remains stable.

Any excess supply (above the equilibrium point) or excess demand (below the equilibrium point) will increase or decrease temporarily foreign currency reserves accordingly. Finally, such disequilibrium situations will be eliminated through the pricing, e.g. the market itself.

2. Purchasing Power Parity (PPP)

By definition the PPP states that using a unit of a currency, let us say one euro, which is the purchasing power that can purchase the same goods worldwide. The theory is based on the 'law of one price', which argues that should a euro price of a good be multiplied by the exchange rate (€ / US\$) then it will result in an equal price of the good in US dollars. In other words, if we assume that the exchange rate between the € and US \$ states at 1/1.2, then goods that cost € 10 in the EU should cost US\$ 12 in the United States. Otherwise, arbitrage¹¹ profits will occur.

However, it is finally the market that through supply and demand will force accordingly the euro and US dollar prices to the equilibrium point. Thus, the law of one price will be reinstated, as well as the purchase power parity between the euro and US dollar.

Inflation differentials between countries will also be eliminated in terms of their effect on the prices of the goods because the PPP will adjust to equal the ratio of their price levels¹². More specifically, as stated in their book (Lumby S. & Jones C. 1999) "the currency of the country with the higher rate of inflation will depreciate against the other country's currency by approximately the inflation differential".

In conclusion, it can be argued that the theory, although it describes in a sufficient way the determination of the exchange rates, is not of good value, mainly because of the following two disadvantages. Firstly, not all goods are traded internationally (for example, buildings) and secondly, the transportation cost should represent a small amount of the good's worth.

3. The Balance of Payments (BOP) Approach

The balance of payments approach is another method that explains what the factors are that determine the supply and demand curves of a country's currency.

As it is known from macroeconomics, the balance of payments is a method of recording all the international monetary transactions of a country during a specific period of time. The transactions recorded are divided into three categories: the current account transactions¹³, the capital account transactions¹⁴, and the central bank transactions¹⁵.

The aforementioned categories can show a deficit or a surplus, but theoretically the overall payments (the BOP as a whole) should be zero - which rarely happens.

As stated earlier, a currency's price depreciation or appreciation (the change in the value of money), directly affects the volume of a country's imports and exports and, consequently, a likely fluctuation in the exchange rates can add to BOP discrepancies.

For example, a likely depreciation will increase the value of exports in home currency terms (the larger the exports demand elasticity the greater the increase).

Conversely, the imports will become 'more expensive' and their value will be reduced in home currency (the larger the imports demand elasticity the greater the decrease).

Consequently, we can argue that unless the value of exports increases less than the value of imports, the depreciation will improve the current account. More specifically, we can finally assess the impact of the currency's depreciation on the current account only by considering the price sensitivity of imports and exports.

4. The Monetary Approach

In this approach attention is given to the stock of currencies in comparison to the willingness of people to hold these stocks.

According to the monetary theory, exchange rates adjust to ensure that the quantity of money in each currency supplied is equal to the quantity demanded (Parkin M. & King D. 1992).

Both Quantity Theory of Money (QTM) and Purchasing Power Parity (PPP) have been used in support of the aforementioned theory.

The QTM states that there is a direct relationship between the quantity of money and the level of prices of goods and services sold (Investopedia.com). In other words, more money equals more inflation.

In a domestic framework, the following equation has been formulated¹⁶.

$$MV = PY$$

M: Money supply/demand

V: Velocity of circulation (the number of times money change hands)

P: Average price levels

Y: GDP

Finally, we can conclude that an increase in the money supply leads to inflation, which in turn results in the decrease in the value of money or purchasing power.

Consequently, if we also consider this in an international context, we will appreciate the following implications:

Firstly, a rapid increase in the money supply (in the home currency), which as stated earlier means inflation, will put into effect the PPP resulting in the depreciation of the currency's exchange rate.

Secondly, a higher interest rate will also result in the currency's depreciation because of the positive relationship between interest rates and money circulation.

Finally, if the GDP grows faster than overseas GDP, the demand for money will increase. Assuming there is a given supply of money, the exchanged rate will decrease, which is in direct contrast to the PPP approach.

5. The Portfolio Balance Approach

The portfolio balance approach takes into consideration the diversification of investors' portfolio assets. Diversification is a technique that attempts to reduce risk by investing both among various financial instruments and across national borders, to mention just a few.

For example, here below we consider a combination of domestic and foreign money and domestic and foreign bonds.

Both the M and the B lines show combinations of domestic interest rates and exchange rates. The upward line M is in agreement with the equilibrium in the money market and the downward line B is in agreement with the equilibrium in the bond market. Point E, which is the intersection of M with B, represents the combination of interest rate with the exchange rate that gives equilibrium to both the money and bond markets.

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What the theory argues is that an increase in the money supply will lead to a depreciation of the exchange rate. The extent of the depreciation depends upon the slope of the curves M and B.

For example, if we consider an increase in the domestic money supply, we will anticipate that a lower interest rate and /or a higher exchange rate can only absorb the excess supply, which in turn will result in the reduction of bonds. To this end, line M will move to the right and line B will move to the left.

16.4 Exchange Rate Forecasting

In the previous section we referred to various theories in respect to the main determinant of future exchange rates. However, it is actually an empirical topic to identify the most important factors. As a result, we can argue that forecasting exchange rates is a difficult task because of so many factors that might be regarded as determinants. In addition, using formulas¹⁷ (similar to the Interest Rate Parity Theorem) will result in only imprecise estimates of future currencies exchange, basically because the data related to inflation differentials and future spot rates are by themselves only estimates.

On the other hand, it remains doubtful whether or not the foreign exchange market is an efficient¹⁸ one - since it seems that not all information but only the historical is incorporated in prices (weak form efficiency).

Although we share the opinion that there is no reliable method available to forecast exchange rates, we will refer here below to some of the main concepts.

1. The Unbiased Expectations Hypothesis

The concept of the Unbiased Expectations Hypothesis argues that the forward rate is an unbiased forecaster of the future spot rate. Thus, the forward rate at time t for maturity at time T must equal the market's expectation at time t for maturity at time T .

$$F_{tT} = E_t(S_T)$$

In addition, the forward price is the expected spot price minus a risk premium to cover likely interest rate differentials.

$$F_{tT} = E_t(S_T) - \rho \cdot \sigma$$

? is the risk premium

2. Unbiased or Biased Predictor

Finally, the UEH does not give a quite satisfactory reply as to whether or not a forward rate may be a biased predictor of a future spot rate.

In this respect, the following equation gives adequate answer to the aforementioned question.

$$S_T = b_0 + b_1 F_{t,T} + b_2 I$$

S_t : represents the realized spot rate for the maturity date

$F_{t,T}$: represents the forward rate

I : represents any available information that affects the exchange rate

b_2 : is a statistically significant that represents the market's efficiency if all the information is not incorporated in the forward rate (inefficient market)

Studying historical data, we can conclude that in the majority of instances the b_0 does not equal to zero and the b_1 does not equal to 1, which means that the forward rate is actually a biased predictor of the future spot rate. Contrarily, both the b_0 and the b_1 have a negative value, demonstrating that there is a risk premium (mentioned earlier) related to the forward rate.

3. Purchasing Power Parity

In accordance with the PPP concept, the inflation differentials between countries affect the exchange rate, and consequently the PPP could be of good value in order to forecast the exchange rate. In Cochran & Defina study (Cochran & Defina 1995), they show that the exchange rates, although they deviate from the PPP, they finally return to their PPP levels. However, during their deviation the possibility of the exchange rates moving backward from or forwards to the PPP remains the same, and consequently the PPP did not prove itself to be a consistent or reliable 'tool' for forecasting.

4. Econometric Models

Notes

The econometric models in their attempt to forecast the exchange rates take into consideration other factors that are regarded as determinants of the exchange rates. More specifically: inflation, the relative GDP levels, the relative interest rates, and the relative money supply.

Although the econometric models perform well in general, we can argue that these models do not lead to reliable forecasts because they use in many cases 'past' data.

In addition, it can be argued that empirical studies indicate that the ability of such models to forecast is greater in the long term than in the short term.

5. Technical Analysis Forecasting

In contrast to the fundamental analysis that considers financial data, the technical analysis analyses diagrams based on past data. More specifically, it accepts the following:

The market is efficient (all information is incorporated into the prices).

The prices are moved by trend.

The history repeats itself.

The technical analysis takes into consideration indicators, such as moving averages and oscillators, the volume of transactions, trend lines, and time or price filters, and it combines their trend according to some charting rules.²⁰ Then in turn the technical analysis tries to identify the future price and anticipate the price patterns in the financial and commodity markets.

The applied chartist techniques, either on bar charts or on candlestick²¹ charts, lead to more reliable forecasts when dealing with short-term periods.

Self-Assessment

1. Choose the correct options:

- (i) If the U.S. dollar depreciates in terms of the Euro:
 - (a) American goods would be cheaper for Europeans.
 - (b) Americans would have to pay fewer dollars for one Euro.
 - (c) The relative price of U.S. exports would rise.
 - (d) European goods would be cheaper for Americans.
- (ii) What accounts for most of the activity in the foreign exchange market?
 - (a) Interbank trading
 - (b) Currency trade among central banks
 - (c) Trading currency between importers and exporters
 - (d) Trading by financial institutions
- (iii) Which of the following is NOT a major currency trading center?
 - (a) Chicago
 - (b) Tokyo
 - (c) London
 - (d) New York
 - (e) Frankfurt
- (iv) What is the "arbitrage" opportunity in the foreign exchange market?
 - (a) A cross-rate.
 - (b) A difference between the exchange rate for buying and selling the currency from the same bank.
 - (c) A difference between the exchange rates in different trading centers.
 - (d) A fee that brokers charge for trading currency of their clients.
- (v) If a contract contains a promise that a specified amount of foreign currency will be delivered on the specified date in the future, this is:

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- | | |
|-------------------------|--------------------------------|
| (a) A forward contract. | (b) A swap. |
| (c) A futures contract. | (d) A foreign exchange option. |
| (e) A spot contract. | |
- (vi) A saver will prefer asset X to asset Y if:
- | | |
|-----------------------------|---|
| (a) Asset X is more liquid. | (b) Asset X has a higher expected return. |
| (c) Asset X is less risky. | (d) All of the above. |
| (e) None of the above. | |

16.5 Summary

- In this Unit we initially analyzed the theories of exchange rate determination, and we concluded that the exchange rate of a currency, just like commodities, determine its price responding to the forces of supply and demand.
- However, it remains difficult to evaluate the 'weight' of each factor that influences the supply and demand flows. In this respect, we can argue that in the long term fundamental forces drive the currency's movements, e.g., inflation rates, interest rates, and GDP levels, to mention just a few, while in the short run, news and events drive the exchange rates movements. Moreover, we still remain unsure as to the ranking of the factors that finally determine the exchange rates.
- We have further considered various concepts and models thought to be reliable forecasters of the exchange rates. We have concluded that the forward rates are not good predictors of the future spot rates. In other words, the forward rate does not provide an 'unbiased' estimate of the exchange rate movements.
- Taking into consideration the time horizons, we come to the conclusion that fundamental economic forces, such as purchasing power parity and the balance of payments, did not automatically affect the exchange rates, but they require a considerable amount of time. As a result they are not reliable over short time periods. Conversely, we can argue that the technical analysis performs comparatively well in the short run since news and events are incorporated into the diagrams and trends.
- We finally conclude the following: Firstly, the foreign exchange market is not an efficient one. Otherwise, it would be futile to beat or try to forecast the market. Secondly, because of so many determinants of the exchange rates, it is difficult to proceed to a reliable estimation for future rates. Thirdly, there is no unfailing method available to forecast exchange rates, and we have further determined that the forward rate provides a biased estimate of the future spot rate. As a result, companies trading internationally face exposure to exchange rate risk.
- In this respect, the mentioned 'costly' hedging²² instruments in Appendix 1 have been developed in order to manage the exposure related to unfavorable currency movements. More specifically, it can be argued that there is no 'perfect' hedge or in other words a hedge with 100 % efficiency. What in practice happens is that a small profit or loss is made. For example, when an importing company has a liability that is payable in six months, it can hedge its exposure to exchange rate risk by using a forward contract. e.g., the company can buy the due amount at the six months forward rate. The company having used the aforementioned hedging instrument has no 'uncertainty' about the exchange rate movements because it will pay a specific and previously known amount in its own currency. In other words, the company has 'locked' its exposure, and consequently, its cost irrespective of whether or not the after six months 'spot' rate proved to be in favour of or not in favour of his decision to hedge.
- Finally, we wish to underline that as indicated earlier, there are no unfailing methods to forecast exchange rates; consequently, the companies face an exposure related to the currencies' fluctuation. However, their exposure to exchange rates movements can be managed, controlled, and even more, eliminated by using hedging instruments.

16.6 Key-Words

Notes

1. **Portfolio approach** : An approach to explaining exchange rates that stresses their role in changing the proportions of different currency-denominated assets.
- A grouping of financial assets such as stocks, bonds and cash equivalents, as well as their mutual, exchange-traded and closed-fund counterparts. Portfolios are held directly by investors and/or managed by financial professionals.

16.7 Review Questions

1. What do you mean by portfolio? Discuss portfolio approach.
2. Discuss the theory to determine exchange rate .
3. Write a short note on the balance of payment theory.

Answers: Self-Assessment

- | | | |
|------------|----------|-----------|
| 1. (i) (d) | (ii) (a) | (iii) (a) |
| (iv) (c) | (v) (c) | (vi) (e) |

16.8 Further Readings



1. Dornbusch, Rudiger and Stanley Fischer (1980). "Exchange Rates and the Current Account." *American Economic Review* 70, 960 {71.
2. Frenkel, Jacob A. and Michael L. Mussa (1985). "Asset Markets, Exchange Rates, and the Balance of Payments: The Reformulation of Doctrine." See Jones and Kenen (1985), pp. 679{747.
3. Isaac, Alan G. (1989). "Wealth Effects and the Current Account with Endogenous Terms of Trade." *Journal of Macroeconomics* 11(4), xxx.
4. Jones, Ronald W. and Peter B. Kenen, eds. (1985). *Handbook of International Economics, Volume 2*. Amsterdam: North Holland Publishing Co.
5. Kenen, Peter (1985). "Macroeconomic Theory and Policy: How the Closed Economy was Opened." See Jones and Kenen (1985), Chapter 13, pp. 625{677.
6. Kouri, Pentti J.K. (1976, May). "The Exchange Rate and the Balance of Payments in the Short Run and the Long Run: A Monetary Approach." *Scandinavian Journal of Economics* 78(2), 280{304.

Unit 17 : Process of Adjustments : Gold Standard, Fixed Exchange Rates and Flexible Exchange Rate

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17.1 The Gold Standard

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Objectives

After reading this Unit students will be able to:

- Know the Gold Standard.
- Discuss the Fixed Exchange Rate and Flexible Exchange Rate.

Introduction

This process reestablishes equilibrium in the foreign exchange market. The Bank of England loses foreign reserves since it is forced to buy pounds and sell gold to keep the pound price of gold fixed. Foreign central banks gain reserves as they *buy* gold with their currencies. Countries share equally in the burden of balance of payments adjustment. Because official foreign reserves are declining in Britain and increasing abroad, the British money supply is falling, pushing the British interest rate back up, and foreign money supplies are rising, pushing foreign interest rates down. Once interest rates have again become equal across countries, asset markets are in equilibrium and there is no further tendency for the Bank of England to lose gold or for foreign central banks to gain it. The total world money supply (not the British money supply) ends up being higher by the amount of the Bank of England's domestic asset purchase. Interest rates are lower throughout the world.

Our example illustrates the symmetric nature of international monetary adjustment under a gold standard. Whenever a country is losing reserves and seeing its money supply shrink as a consequence, foreign countries are gaining reserves and seeing their money supplies expand. In contrast, monetary adjustment under a reserve currency standard is highly asymmetric. Countries can gain or lose reserves without inducing any change in the money supply of the reserve currency country, and only the latter country has the ability to influence domestic and world monetary conditions.¹

1. Originally, gold coins were a substantial part of the currency supply in gold standard countries. A country's gold losses to foreigners therefore did not have to take the form of a fall in central bank gold holdings : Private citizens could melt gold coins into ingots and ship them abroad, where they were either reminted as foreign gold coins or sold to the foreign central bank for paper currency. In terms of our earlier analysis of the central bank balance sheet, circulating gold coins are considered to make up a component of the monetary base that is not a central bank liability. Either form of gold export would thus result in a fall in the domestic money supply and an increase in foreign money supplies.

17.1 The Gold Standard

Notes

An international gold standard avoids the asymmetry inherent in a reserve currency standard by avoiding the “Nth currency” problem. Under a gold standard, each country fixes the price of its currency in terms of gold by standing ready to trade domestic currency for gold whenever necessary to defend the official price. Because there are N currencies and N prices of gold in terms of those currencies, no single country occupies a privileged position within the system : Each is responsible for pegging its currency’s price in terms of the official international reserve asset, gold.

The Mechanics of a Gold Standard

Because countries tie their currencies to gold under a gold standard, official international reserves take the form of gold. Gold standard rules also require each country to allow unhindered imports and exports of gold across its borders. Under these arrangements, a gold standard, like a reserve currency system, results in fixed exchange rates between all currencies. For example, if the dollar price of gold is pegged at \$35 per ounce by the Federal Reserve while the pound price of gold is pegged at £14.58 per ounce by Britain’s central bank, the Bank of England, the dollar/pound exchange rate must be constant at $(\$35 \text{ per ounce}) \div (£14.58 \text{ per ounce}) = \2.40 per pound . The same arbitrage process that holds cross exchange rates fixed under a reserve currency system keeps exchange rates fixed under a gold standard as well.

Symmetric Monetary Adjustment Under a Gold Standard

Because of the inherent symmetry of a gold standard, no country in the system occupies a privileged position by being relieved of the commitment to intervene. By considering the international effects of a purchase of domestic assets by one central bank, we can see in more detail how monetary policy works under a gold standard.

Suppose the Bank of England decides to increase its money supply through a purchase of domestic assets. The initial increase in Britain’s money supply will put downward pressure on British interest rates and make foreign currency assets more attractive than British assets. Holders of pound deposits will attempt to sell them for foreign deposits, but no *private* buyers will come forward. Under floating exchange rates, the pound would depreciate against foreign currencies until interest parity had been reestablished. This depreciation cannot occur when all currencies are tied to gold, however. What happens ? Because central banks are obliged to trade their currencies for gold at fixed rates, unhappy holders of pounds can sell these to the Bank of England for gold, sell the gold to other central banks for their currencies, and use these currencies to purchase deposits that offer interest rates higher than the interest rate on pounds. Britain therefore experiences a private financial outflow and foreign countries experience an inflow.



Notes

A gold standard therefore places automatic limits on the extent to which central banks can cause increases in national price levels through expansionary monetary policies.

Benefits and Drawbacks of the Gold Standard

Advocates of the gold standard argue that it has another desirable property besides symmetry. Because central banks throughout the world are obliged to fix the money price of gold, they cannot allow their money supplies to grow more rapidly than real money demand, since such rapid monetary growth eventually raises the money prices of all goods and services, including gold. These limits can make the real values of national monies more stable and predictable, thereby enhancing the transaction economies arising from the use of money. No such limits to money creation exist under a reserve currency system; the reserve currency country faces no automatic barrier to unlimited money creation.

Notes

Offsetting this potential benefit of a gold standard are some drawbacks :

1. The gold standard places undesirable constraints on the use of monetary policy to fight unemployment. In a worldwide recession, it might be desirable for all countries to expand their money supplies jointly even if this were to raise the price of gold in terms of national currencies.
2. Tying currency values to gold ensures a stable overall price level only if the *relative* price of gold and other goods and services is stable. For example, suppose the dollar price of gold is \$35 per ounce while the price of gold in terms of a typical output basket is one-third of a basket per ounce. This implies a price level of \$105 per output basket. Now suppose that there is a major gold discovery in South America and the relative price of gold in terms of output falls to one-fourth of a basket per ounce. With the dollar price of gold unchanged at \$35 per ounce, the price level would have to rise from \$105 to \$140 per basket. In fact, studies of the gold standard era do reveal surprisingly large price level fluctuations arising from such changes in gold's relative price.
3. An international payments system based on gold is problematic because central banks cannot increase their holdings of international reserves as their economies grow unless there are continual new gold discoveries. Every central bank would need to hold some gold reserves to fix its currency's gold price and serve as a buffer against unforeseen economic mishaps. Central banks might thereby bring about world unemployment as they attempted to compete for reserves by selling domestic assets and thus shrinking their money supplies.
4. The gold standard could give countries with potentially large gold production, such as Russia and South Africa, considerable ability to influence macroeconomic conditions throughout the world through market sales of gold.

Because of these drawbacks, few economists favor a return to the gold standard today. While most central banks continue to hold some gold as part of their international reserves, the price of gold now plays no special role in influencing countries' monetary policies.



Did u know?

As early as 1923, the British economist John Maynard Keynes characterized gold as a "barbarous relic" of an earlier international monetary system.

The Bimetallic Standard

Up until the early 1870s, many countries adhered to a **bimetallic standard** in which the currency was based on both silver and gold. The United States was bimetallic from 1837 until the Civil War, although the major bimetallic power of the day was France, which abandoned bimetallism for gold in 1873.

In a bimetallic system, a country's mint will coin specified amounts of gold *or* silver into the national currency unit (typically for a fee). In the United States before the Civil War, for example, 371.25 grains of silver (a grain being 1/480th of an ounce) or 23.22 grains of gold could be turned into a silver or, respectively, gold dollar. That mint parity made gold worth $371.25/23.22 = 16$ times as much as silver.

The mint parity could differ from the market relative price of the two metals, however, and when it did, one or the other might go out of circulation. For example, if the price of gold in terms of silver were to rise to 20 : 1, a depreciation of silver relative to the mint parity of 16 : 1, no one would want to turn gold into gold dollar coins at the mint. More dollars could be obtained by instead using the gold to buy silver in the market, and then having the silver coined into dollars. As a result, gold would tend to go out of monetary circulation when its relative market price rose above the mint relative price, and silver coin would tend to disappear in the opposite case.

The advantage of bimetallism was that it might reduce the price level instability resulting from use of one of the metals alone. Were gold to become scarce and expensive, cheaper and relatively abundant silver would become the predominant form of money, thereby mitigating the deflation that a pure gold standard would imply. Notwithstanding this advantage, by the late nineteenth century most of the world had followed Britain, the leading industrial power of the day, onto a pure gold standard.

The Gold Exchange Standard

Notes

Halfway between the gold standard and a pure reserve currency standard is the **gold exchange standard**. Under a gold exchange standard central banks' reserves consist of gold *and* currencies whose prices in terms of gold are fixed, and each central bank fixes its exchange rate to a currency with a fixed gold price. A gold exchange standard can operate like a gold standard in restraining excessive monetary growth throughout the world, but it allows more flexibility in the growth of international reserves, which can consist of assets besides gold. A gold exchange standard is, however, subject to the other limitations of a gold standard listed above.

The post-World War II reserve currency system centered on the dollar was, in fact, originally set up as a gold exchange standard. While foreign central banks did the job of pegging exchange rates, the U.S. Federal Reserve was responsible for holding the dollar price of gold at \$35 an ounce. By the mid-1960s, the system operated in practice more like a pure reserve currency system than a gold standard. For reasons explained in the next chapter, President Nixon unilaterally severed the dollar's link to gold in August 1971, shortly before the system of fixed dollar exchange rates was abandoned.

The Demand for International Reserves

The unit explained that a central bank's assets are divided between domestic-currency assets, such as domestic government bonds, and foreign-currency assets, the bank's international reserves. Historically and up to the present day, international reserves have been prized by central banks because they can be traded to foreigners for goods and services even in circumstances, such as financial crises and wars, when the value of domestic assets may come into doubt. Gold played the role of international reserve asset *par excellence* under the gold standard—and economists debate whether the United States dollar plays that role today and, if so, for how long that unique American privilege can last. Because central banks and governments may alter their policies to affect national holdings of international reserves, it is important to understand the factors that influence countries' demands for international reserves.

A good starting point for thinking about international reserves is the model in the chapter in which domestic and foreign bonds are perfect substitutes, the exchange rate is fixed, and confidence in the fixed exchange rate is absolute. In that model, our result that monetary policy is ineffective also implies that individual central banks can painlessly acquire all the international reserves they need! They do so simply by an open-market sale of domestic assets, which immediately causes an equal inflow of foreign assets but no change in the home interest rate or in other domestic economic conditions. In real life matters may not be so easy, because the circumstances in which countries need reserves are precisely those in which the above conditions of perfect confidence in creditworthiness and in the exchange-rate parity are likely to be violated. As a result, central banks manage their reserves in a *precautionary* manner, holding a stock they believe will be sufficient in future times of crisis.

As usual there are costs as well as benefits of acquiring and holding reserves, and the level of reserves that a central bank wishes to hold will reflect a balance between the two. Some monetary authorities (such as that of Hong Kong) value reserves so highly that the entire money supply is backed by foreign assets—there are no domestic monetary assets at all. In most cases, however, central banks hold both domestic and foreign assets, with the optimal level of reserves determined by the tradeoff between costs and benefits.

Starting in the mid-1960s, economists developed and sought empirical verification of formal theories of the demand for international reserves. In that setting, with international capital markets much more limited than they are today, a major threat to reserves was a sudden drop in export earnings, and central banks measured reserve levels in terms of the number of months of import needs those reserves could cover. Accordingly, the variability levels of exports, imports, and international financial flows, all of which could cause reserves to fluctuate too close to zero, were viewed as prime determinants of the demand for international reserves. In this theory, higher variability would raise the demand for reserves. An additional variable raising the average demand for reserves might be the adjustment cost countries would suffer if they suddenly had to reduce exports or raise imports to

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generate a trade surplus, or raise interest rates to draw in foreign capital. Higher economic openness could make such adjustments easier, thereby reducing the demand for reserves, but might also make an economy more vulnerable to foreign trade shocks, thereby raising desired reserve holdings.

On the other hand, the main cost of holding reserves is their interest cost. A central bank that switches from domestic bonds to foreign reserves loses the interest on the domestic bonds and instead earns the interest on dollars. If markets harbor any fears that the domestic currency could be revalued, then domestic bonds will offer a higher interest rate than foreign reserves, implying that it is costly to switch the central bank's portfolio toward reserves. In addition, reserves may offer lower interest simply because of their higher liquidity.

It was argued in the 1960s that countries with more flexible exchange rates would find it easier to generate an export surplus if reserves ran low—they could allow their currencies to depreciate, perhaps avoiding the recession that might otherwise be needed to create a trade balance surplus. When industrial countries moved to floating exchange rates in the early 1970s, many economists therefore expected that the demand for international reserves would drop sharply.

Figure 1 shows, however, that nothing of the sort happened. For industrial countries, the growth rate of international reserves has declined only slightly since the 1960s. Industrial-country reserves have persistently grown at roughly the same pace as nominal industrial-country income. For developing countries, the growth rate of reserves has, if anything, risen (though the recent sharp upsurge is to some degree a reflection of huge reserve purchases by China). Accelerating reserve growth has taken place despite the adoption of more flexible exchange rates by many developing countries.

One explanation for this development, which we will discuss further in later chapters, is that the growth of global capital markets has vastly increased the potential variability of financial flows across national borders, and especially across the borders of crisis prone developing countries. The sharp decline in developing-country reserve growth in the 1982-1992 period, shown in the figure, reflects an international debt crisis during the years 1982-1989. In that crisis, foreign lending sources dried up and developing countries were forced to draw on their reserves. The episode illustrates well why developing countries have added so eagerly to their reserve holdings. Even a developing country with a floating exchange rate might need to pay off foreign creditors and domestic residents with dollars to avoid a financial crisis and a currency collapse.

Nothing about this explanation contradicts earlier theories. The demand for international reserves still reflects the variability in the balance of payments. The rapid globalization of financial markets in recent years has, however, caused a big increase in potential variability and in the potential risks that variability poses.

17.2 Fixed Exchange Rates

In a system of fixed exchange rates, the exchange rate is fixed at an official predetermined rate. The central bank acts as a market maker and steps in to fill any imbalance between demand and supply.

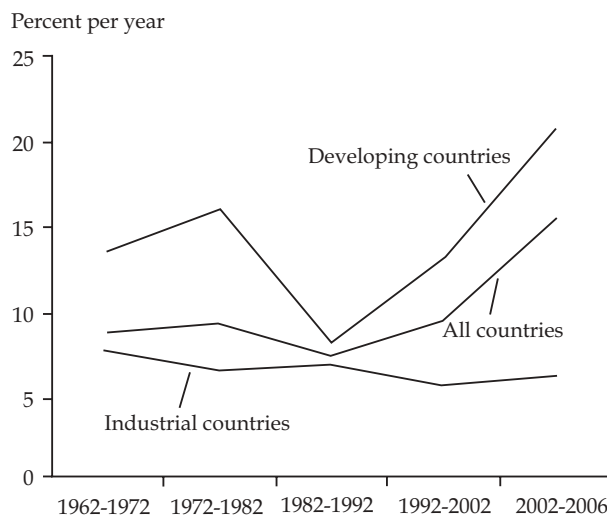


Figure 17.1: Growth Rates of International Reserves

Annualized growth rates of international reserves did not decline sharply after the early 1970s. Recently, developing countries have added large sums to their reserve holdings.

Source : Economic Report of the President, 2007.

Such a system has two major advantages. The first is that fixed exchange rates imply reduced uncertainty, and this helps reduce the costs of international trade transactions. The second is that fixed exchange rates act as to discipline monetary authorities, preventing them from pursuing inflationary policies. This argument was emphasized when Brazil and Argentina adopted fixed-exchange-rate-based arrangements in the 1990s. The logic is that excessive money supply expansion generates inflation that, in turn, gives agents an incentive to shift into currencies with purchasing power that is not being eroded. Such shifts force the central bank to intervene and buy the currency to protect the exchange rate, thereby reducing the money supply. In this fashion, fixed exchange rates establish an automatic mechanism that prevents central banks from excessive money supply expansion, and central banks are forced to tighten the money supply whenever inflation starts to increase to levels that will spur currency flight. This mechanism is referred to as a nominal anchor, with the exchange rate serving to anchor the price level. In countries with histories of excessive inflation and where central banks have lost credibility with financial markets, it is argued that employing a fixed-exchange-rate nominal anchor is a good way to win back credibility. Moreover, the costs of such commitment are small if monetary policy is viewed as being unable to systematically impact equilibrium real interest rates and the equilibrium level of real economic activity.

Balanced against these advantages are several disadvantages. First, by committing to a fixed exchange rate, a country gives up having the exchange rate as a shock absorber that helps insulate against external economic shocks. Second, the fixed exchange rate limits the ability to use domestic monetary policy to stabilize the economy, but, as noted above, this loss can be beneficial in cases where monetary authorities have a credibility problem due to past high inflation.

Third, the nature of the adjustment process under fixed exchange rates may have a significant deflationary bias. Abstracting from capital flows, countries with trade surpluses will experience an excess demand for their currencies, while countries with trade deficits will experience an excess supply of their currencies. If a deficit country is forced to keep buying its currency to defend the exchange rate, this leads to domestic monetary contraction in the deficit country, while the money supply of the surplus country increases due to the selling of foreign reserves by the deficit country. The classical macroeconomic assumption is that reductions in the money supply cause prices to decline but have no impact on output. This is the “neutrality of money proposition,” whereby output and employment are determined by real economic factors (tastes, resources, and productive technology) and not by the amount of circulating paper (i.e., money). Applied to the global economy with fixed exchange rates, these money supply changes cause prices to fall in the deficit country and rise in the surplus country, thereby altering relative competitiveness and eliminating the trade deficit. However, such global monetarist reasoning is contested by Keynesian analysis that argues that monetary contraction induces real output contraction that is worsened by price deflation due to debt effects. The net result is that the adjustment process under fixed exchange rates causes domestic output contraction that ricochets back into the international economy, as falling domestic income causes reduced imports, in turn, reducing aggregate demand and income in other countries.

One possible way to avoid this contractionary outcome is to require the surplus country to defend its currency and prevent it from appreciating, rather than require the deficit country to do the defending. In this case, the system is prone to an expansionary bias, because the surplus country increases its money supply to prevent appreciation. However, this arrangement removes the discipline of fixed exchange rates on central banks. A second option for reducing contractionary bias is to have periodic discrete adjustments of the fixed exchange rate to eliminate fundamental trade imbalances. This was the Bretton Woods approach. However, it also removes (or at least significantly weakens) the discipline of fixed exchange rates on central banks. Additionally, it does away with the certainty of fixed exchange rates and invites market speculation aimed at anticipating or forcing a devaluation.

One claimed advantage of fixed exchange rates is that they reduce price uncertainty, which is good for international trade. However, introducing international capital mobility into a system of fixed exchange rates dramatically changes this conclusion. As noted earlier, capital mobility introduces portfolio and wealth allocation concerns that impact currency markets. Most importantly, capital mobility introduces financial market behaviors of speculation and herding into currency markets. These behaviors can render a fixed exchange-rate system financially fragile. If a country has a persistent

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trade deficit, the central bank will be obliged to intervene to defend the exchange rate. Given finite holdings of foreign reserves, market participants will recognize that the central bank will eventually run out of foreign reserves with which to conduct this defense. At this stage, market participants may start selling to get out before the central bank runs out of reserves and is forced to devalue. As a result, the collapse can be brought forward in time, even when a central bank still has large reserve holdings. More importantly, speculators may begin to speculate against any currency they believe “subjectively” to be weak. In modern financial markets, speculators can raise enormous amounts of leverage that dwarf the foreign reserves of the central bank. Therefore, they can engage in a war of attrition that they can win as long as the central bank with weak currency is the one forced to defend the exchange rate. In effect, fixed exchange rates offer speculators a form of “one-way” option. If they speculate and win, they reap the huge reward of devaluation : if the central bank fights off the speculative attack, all they have lost are the transactions costs and interest for a short period, and these transaction costs are increasingly small due to technological innovations in electronic commerce. The upshot is that fixed exchange rates are fragile in a world with international capital mobility. This means that there is always a risk of speculatively induced collapse, and reducing that risk requires that countries hold large quantities of costly foreign reserves.

A final problem with fixed exchange rates concerns their impact on private-sector borrowing decisions, particularly in developing countries. Fixed exchange rates create a moral hazard, whereby agents think there is no currency risk associated with foreign currency borrowing. Agents, therefore, over-borrow foreign currency, and sudden collapses of the exchange rate can leave them saddled with huge debt burdens measured in domestic currency terms. At this stage, a country can be plunged into a cycle of debt deflation and economic contraction, as happened in East Asia and Argentina.

17.3 Flexible Exchange Rates

In a flexible system, the exchange rate is determined by market forces of demand and supply for a currency. Among economists, there is a generic presumption that markets are stable, and that the actions of agents as represented by demand and supply are based on rational decisions predicated on “economic fundamentals,” and that market economies (i.e., the full network of individual markets that make up the economy) have a propensity to adjust smoothly and rapidly to full employment equilibrium in the absence of market impediments (i.e., inappropriate regulations and restrictions on price adjustment). This generic presumption predisposes economists to look favorably on flexible exchange rates.

The principle advantage of flexible exchange rates concerns their ability to insulate and stabilize economic activity. With regard to external shocks, the exchange rate can adjust to maintain trade balance. Thus, if export demand declines, the exchange rate can depreciate to lower export prices and restore demand. In effect, the external sector can be balanced by adjusting one price (the exchange rate) rather than adjusting thousands of prices, which would be necessary if restoring balance through downward aggregate price and nominal wage adjustment. In addition, a flexible exchange rate can help in the adjustment to internal demand shocks. Thus, a domestic boom will tend to raise domestic interest rates, thereby attracting financial inflows and driving up the exchange rate. This appreciation will tend to reduce export demand and switch consumption away from domestically produced goods to imports, thereby reducing aggregate demand and cooling the boom.

A second major advantage of flexible exchange rates is that they strengthen the power of monetary policy, which can be used to ensure domestic economic balance. Thus, in recession, the monetary authority can lower interest rates, thereby causing financial capital to exit, which depreciates the exchange rate and stimulates net exports.

Balanced against these advantages are some disadvantages. First, flexible exchange rates imply exchange-rate uncertainty that raises the cost of international trade to the extent that firms hedge this uncertainty. The greater the volatility of exchange rates, the greater the uncertainty and cost. Perhaps even more important is that exchange-rate uncertainty may cause firms to diversify sources of production internationally to protect against exchange-rate changes that can adversely affect their costs and competitive positions. This hedge-driven diversification is inefficient, being driven by

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uncertainty rather than production efficiency concerns. Moreover, firms may end up with overall excess capacity that they are willing to carry as a hedge against exchange-rate exposure. This raises costs. Additionally, to the extent that internationally diversified production increases firms' bargaining power with labor, the distribution of income may be tilted away from wages to profits. Volatile flexible exchange rates may, thereby, have contributed to the adverse income distribution outcomes associated with globalization.

A second problem with flexible exchange rates relates to the issue of capital mobility. In the absence of capital mobility, demand and supply in exchange markets will reflect the balance of trade. Countries running surpluses will experience excess demand for their currency, as their trading partners seek to obtain currency to pay for imports, and this will cause the surplus country currency to appreciate. Conversely, currencies of deficit countries will tend to depreciate, as they sell their currency to get surplus country currency. This is the double-entry logic of market exchange. Every purchase is matched by an offer of exchange. In currency markets, the match is one currency for another. If the Marshall-Lerner elasticity conditions are met, the depreciation of the deficit country's exchange rate will tend, over time (after J-curve effects have worked through), to restore trade balance, which will then cause its currency to stop depreciating. Under such conditions, the foreign exchange market is stable.

However, given capital mobility, demand and supply in exchange markets will reflect more than just trade balance considerations. They will also reflect asset portfolio considerations and decisions to hold wealth across different national financial markets. This brings an asset market dimension to foreign exchange markets that can be highly problematic. In particular, currency markets will take on the character of asset markets. As such, they may be volatile and subject to speculative manias and herd behaviors. This opens the way for asset market volatility to impact exchange rates and, thereby, impact output and employment. Thus, as financial investors move money into a country, they will appreciate the exchange rate. This can make industries uncompetitive, resulting in plant closures and job losses despite the absence of any change in factory floor productivity. Capital inflows will also drive up asset prices and lower interest rates, thereby promoting asset-centered booms and distorting the allocation of resources.

In the event that the inflows reverse, the result can be a collapse in asset prices and a rise in interest rates, as happened in East Asia in 1997. Flexible exchange rates plus unrestricted capital mobility can, therefore, make a volatile cocktail.

Self-Assessment

1. Choose the correct options:

- (i) The British economist John Maynard Keynes characterized gold as a barbarous relic in
- | | |
|----------|-------------------|
| (a) 1901 | (b) 1923 |
| (c) 1920 | (d) None of these |
- (ii) The United States was bimetallic from 1837 until the Civil War, although the major bimetallic power of the day was, which abandoned bimetallism for gold in 1873.
- | | |
|-------------|-------------------|
| (a) Germany | (b) France |
| (c) Italy | (d) None of these |
- (iii) President Nixon unilaterally severed the dollar's link to gold in August,
- | | |
|----------|----------|
| (a) 1971 | (b) 1965 |
| (c) 1980 | (d) 1951 |
- (iv) Brazil and Argentina adopted fixed-rate-based arrangements in
- | | |
|-----------|--------------------|
| (a) 1970s | (b) 1990s |
| (c) 1920s | (d) None of these. |

17.4 Summary

- This process reestablishes equilibrium in the foreign exchange market. The Bank of England loses foreign reserves since it is forced to buy pounds and sell gold to keep the pound price of gold fixed. Foreign central banks gain reserves as they *buy* gold with their currencies.
- Our example illustrates the symmetric nature of international monetary adjustment under a gold standard. Whenever a country is losing reserves and seeing its money supply shrink as a consequence, foreign countries are gaining reserves and seeing their money supplies expand. In contrast, monetary adjustment under a reserve currency standard is highly asymmetric.
- A gold standard therefore places automatic limits on the extent to which central banks can cause increases in national price levels through expansionary monetary policies. These limits can make the real values of national monies more stable and predictable, thereby enhancing the transaction economies arising from the use of money. No such limits to money creation exist under a reserve currency system; the reserve currency country faces no automatic barrier to unlimited money creation.
- In a bimetallic system, a country's mint will coin specified amounts of gold *or* silver into the national currency unit (typically for a fee).
- The mint parity could differ from the market relative price of the two metals, however, and when it did, one or the other might go out of circulation. For example, if the price of gold in terms of silver were to rise to 20 : 1, a depreciation of silver relative to the mint parity of 16 : 1, no one would want to turn gold into gold dollar coins at the mint. More dollars could be obtained by instead using the gold to buy silver in the market, and then having the silver coined into dollars.
- The unit explained that a central bank's assets are divided between domestic-currency assets, such as domestic government bonds, and foreign-currency assets, the bank's international reserves. Historically and up to the present day, international reserves have been prized by central banks because they can be traded to foreigners for goods and services even in circumstances, such as financial crises and wars, when the value of domestic assets may come into doubt.
- In real life matters may not be so easy, because the circumstances in which countries need reserves are precisely those in which the above conditions of perfect confidence in creditworthiness and in the exchange-rate parity are likely to be violated. As a result, central banks manage their reserves in a *precautionary* manner, holding a stock they believe will be sufficient in future times of crisis.
- Some monetary authorities (such as that of Hong Kong) value reserves so highly that the entire money supply is backed by foreign assets—there are no domestic monetary assets at all. In most cases, however, central banks hold both domestic and foreign assets, with the optimal level of reserves determined by the tradeoff between costs and benefits.
- In a system of fixed exchange rates, the exchange rate is fixed at an official predetermined rate. The central bank acts as a market maker and steps in to fill any imbalance between demand and supply. Such a system has two major advantages.
- The second is that fixed exchange rates act as to discipline monetary authorities, preventing them from pursuing inflationary policies. This argument was emphasized when Brazil and Argentina adopted fixed-exchange-rate-based arrangements in the 1990s. The logic is that excessive money supply expansion generates inflation that, in turn, gives agents an incentive to shift into currencies with purchasing power that is not being eroded. Such shifts force the central bank to intervene and buy the currency to protect the exchange rate, thereby reducing the money supply. In this fashion, fixed exchange rates establish an automatic mechanism that prevents central banks from excessive money supply expansion, and central banks are forced to tighten the money supply whenever inflation starts to increase to levels that will spur currency flight.

Notes

- Third, the nature of the adjustment process under fixed exchange rates may have a significant deflationary bias. Abstracting from capital flows, countries with trade surpluses will experience an excess demand for their currencies, while countries with trade deficits will experience an excess supply of their currencies. If a deficit country is forced to keep buying its currency to defend the exchange rate, this leads to domestic monetary contraction in the deficit country, while the money supply of the surplus country increases due to the selling of foreign reserves by the deficit country.
- A final problem with fixed exchange rates concerns their impact on private-sector borrowing decisions, particularly in developing countries. Fixed exchange rates create a moral hazard, whereby agents think there is no currency risk associated with foreign currency borrowing. Agents, therefore, over-borrow foreign currency, and sudden collapses of the exchange rate can leave them saddled with huge debt burdens measured in domestic currency terms.

17.5 Key-Words

1. Equilibrium : A state in which opposing forces or influences are balanced.
2. International reserves : Foreign exchange reserves in a strict sense are only the foreign currency deposits and bonds.

17.6 Review Questions

1. What is the mechanics of a gold standard? Explain.
2. What are the benefits and drawbacks of the gold standard? Explain.
3. What are the demand for International Reserves? Discuss.

Answers: Self-Assessment

1. (i) (b) (ii) (b) (iii) (a) (iv) (b)

17.7 Further Readings



1. Dornbusch, Rudiger and Stanley Fischer (1980). "Exchange Rates and the Current Account." *American Economic Review* 70, 960 {71.
2. Frenkel, Jacob A. and Michael L. Mussa (1985). "Asset Markets, Exchange Rates, and the Balance of Payments: The Reformulation of Doctrine." See Jones and Kenen (1985), pp. 679{747.
3. Isaac, Alan G. (1989). "Wealth Effects and the Current Account with Endogenous Terms of Trade." *Journal of Macroeconomics* 11(4), xxx.
4. Jones, Ronald W. and Peter B. Kenen, eds. (1985). *Handbook of International Economics, Volume 2*. Amsterdam: North Holland Publishing Co.
5. Kenen, Peter (1985). "Macroeconomic Theory and Policy: How the Closed Economy was Opened." See Jones and Kenen (1985), Chapter 13, pp. 625{677.
6. Kouri, Pentti J.K. (1976, May). "The Exchange Rate and the Balance of Payments in the Short Run and the Long Run: A Monetary Approach." *Scandinavian Journal of Economics* 78(2), 280{304.

Unit 18 : Merits and Demerits of Fixed and Flexible Exchange Rate

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18.3 Summary

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Objectives

After reading this Unit students will be able to:

- Know the Merits and Demerits of Fixed Exchange Rate.
- Describe the Merits and Demerits of Flexible Exchange Rate.

Introduction

In the previous unit we discussed the various theories relating to the determination of exchange rate under different exchange rate regimes. The present unit discusses the exchange rate adjustment policies that have been in vogue from time to time with the establishment of the IMF. Before we discuss them, it is instructive to have a theoretical interlude relating to fixed and fluctuating exchange rates.

18.1 Merits and Demerits of Fixed Exchange Rate

Under fixed or pegged exchange rates all exchange transactions take place at an exchange rate that is determined by the monetary authority. It may fix the exchange rate by legislation or intervention in currency markets. It may buy or sell currencies according to the needs of the country or may take policy decision to appreciate or depreciate the national currency. The following arguments are usually advanced for and against the system of fixed exchange rates.

Merits of Fixed Exchange Rates

Economic Advantages of a Fixed Exchange Rate : As with a hard peg, a fixed exchange rate has the advantage of promoting international trade and investment by eliminating exchange rate risk. Because the arrangement may be viewed by market participants as less permanent than a currency board, however, it may generate less trade and investment.

As with a hard peg, the drawback of a fixed exchange rate is that it gives the government less scope to use monetary and fiscal policy to promote domestic economic stability. Thus, it leaves countries exposed to idiosyncratic shocks not shared by the country to which it has fixed its currency. As explained above, this is less of a problem than with a hard peg because imperfect capital mobility does allow for some deviation from the policy of the country or countries to which you are linked. But the shock would need to be temporary in nature because a significant deviation could not last.

The scope for the pursuit of domestic goals is greater for countries that fix their exchange rate to a basket of currencies — unlike a hard peg, the country is no longer placed at the mercy of the unique

and idiosyncratic policies and shocks of any one foreign country. One method for creating a currency basket is to compose it of the currencies of the country's primary trading partners, particularly if the partner has a hard currency, with shares set in proportion to each country's proportion of trade. If the correlation of the business cycle with each trading partner is proportional to the share of trade with that country, then the potential for idiosyncratic shocks to harm the economy should be considerably reduced when pegged to a basket of currencies. On the down side, baskets do not encourage as much bilateral trade and investment as a peg to a single currency because they reintroduce bilateral exchange rate risk with each trading partner.

Political Advantages of a Fixed Exchange Rate : In previous decades, it was believed that developing countries with a profligate past could bolster a new commitment to macroeconomic credibility through the use of a fixed exchange rate for two reasons. First, for countries with inflation rates that were previously very high, the maintenance of fixed exchange rates would act as a signal to market participants that inflation was now under control. For example, inflation causes the number of dollars that can be bought with a peso to decline just as it causes the number of apples that can be bought with a peso to decline. Thus, a fixed exchange rate can only be maintained if large inflation differentials are eliminated. Second, a fixed exchange rate was thought to anchor inflationary expectations by providing stable import prices. For a given change in monetary policy, it is thought that inflation will decline faster if people expect lower inflation.

After the many crises involving fixed exchange rate regimes in the 1980s and 1990s, this argument has become less persuasive. Unlike a currency board, a fixed exchange rate regime does nothing concrete to tie policymakers' hands and prevent a return to bad macroeconomic policy. Resisting the temptation to finance budget deficits through inflation ultimately depends on political will; if the political will is lacking, then the exchange rate regime will be abandoned, as was the case in many 1980s exchange rate crises. Thus burnt in the past, investors may no longer see a fixed exchange rate as a credible commitment by the government to macroeconomic stability, reducing the benefits of the fixed exchange rate. Furthermore, some currency board proponents claim that this lack of credibility means that investors will "test" the government's commitment to maintaining a soft peg in ways that are costly to the economy. By contrast, they claim that investors will not test a currency board because they have no doubt of the government's commitment.

For this reason, many economists who previously recommended fixed exchange rates on the basis of their political merits have shifted in recent years towards support of a hard peg. This has been dubbed the "bipolar view" of exchange rate regimes : growing international capital mobility has made the world economy behave more similarly to what models have suggested. As capital flows become more responsive to interest rate differentials, the ability of "soft peg" fixed exchange rate regimes to simultaneously pursue domestic policy goals and maintain the exchange rate has become untenable. As a result, countries are being pushed toward floating exchange rates (the pursuit of domestic goals) or "hard pegs" (policy directed solely toward maintaining the exchange rate). In this view, while "soft pegs" may have been successful in the past, any attempt by a country open to international capital to maintain a soft peg today is likely to end in an exchange rate crisis, as happened to Mexico, the countries of Southeast Asia, Brazil, and Turkey. Empirically, the trend does appear to be moving in this direction. In 1991, 65% of the world's 55 largest economies used "soft peg" exchange rate arrangements; in 1999, the number had fallen to 27%.

Although the international trend has been towards greater capital mobility and openness, it should be pointed out that there are still developing countries that are not open to capital flows. The "bipolar view" argument may not hold for these countries : without capital flows reacting to changes in interest rates, these countries may be capable of maintaining a soft peg and an independent monetary policy. This has been the case for China.

Fixed exchange rates have the following merits :

1. The case for fixed exchange rate between different countries is based on the case for a common currency within a country. A country having a common currency with a fixed value facilitates trade increases production and leads to faster growth of the economy. Similarly, a country would benefit if it has a fixed value of its currency in relation to other countries. Thus fixed

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exchange rates encourage international trade by making prices of goods involved in trade more predictable. They promote economic integration. As pointed out by Johnson, "The case for fixed rates is part of a more general argument for national economic policies conducive to international economic integration."

2. The second argument for a system of fixed exchange rates is that it encourages long-term capital flows in an orderly and smooth manner. There is no uncertainty and risk resulting from a regime of fixed exchange rates.
3. There is no fear of currency depreciation or appreciation under a system of fixed exchange rates. For instance, it removes fear that holding large quantities of foreign currency might lead to losses, if a currency's value drops. Thus it creates confidence in the strength of the domestic currency.
4. There is no fear of any adverse effect of speculation on the exchange rate, as speculative activities are controlled and prevented by the monetary authorities under a regime of fixed exchange rates.
5. Another advantage claimed by a system of fixed exchange rates is that it serves as an 'anchor' and imposes a discipline on monetary authorities to follow responsible financial policies with countries. "Inflation will cause balance of payments deficits and reserve loss. Hence the authorities will have to take counter-measures to stop inflation. Fixed exchange rates should, therefore, impose 'discipline' on governments and stop them from pursuing inflationary policies which are out of tune with the rest of the world."
6. Johnson favours fixed exchange rates in the 'banana republics' where foreign trade plays a dominant role. Flexible exchange rates in them lead to inflation and depreciation when the exchange rate falls.

Demerits of Fixed Exchange Rates

The following arguments are advanced against a system of fixed exchange rates :

1. The principle defect in the operation of a system of fixed exchange rates is the sacrifice of the objectives of full employment and stable prices at the alter of stable exchange rates. For example, balance of payments adjustment under fixed exchange rates of a surplus country can take place through a rise in prices. This is bound to impose large social costs within the country.
2. Again, under this system, the effects of unexpected disturbances in the domestic economy are transmuted abroad. "While a country may be protected by fixed exchange rates from the full consequences of domestic disturbances and policy mistakes, it has to bear a share of the burden of the disturbances and mistakes of others. For to the extent that excess demand 'leaks out' of the country where it was originally created, it 'leaks in' (via a balance of payments surplus) to that country's trading partner."
3. Under it, large reserves of foreign currencies are required to be maintained. Countries with balance of payments deficits must have large reserves if they want to avoid devaluation. If countries wish to remain on the fixed exchange rate system, they must hold large reserves of foreign currencies. This also imposes a heavy burden on the monetary authorities for managing foreign exchange reserves.
4. This system requires complicated exchange control measures which lead to malallocation of the economy's resources.
5. Another problem relates to the stability of the exchange rate. The exchange rate of a country vis-a-vis another country cannot remain fixed for sufficiently long period. Balance of payments problems and fluctuations in international commodity prices often compel countries to bring changes in exchange rates. Thus it is not possible to have rigidly fixed exchange rates.

In fact, a regime of fixed exchange rates presupposes uniformity of domestic policy objectives and response of prices to fluctuations in demand. Such a system would undoubtedly run into severe difficulties in the present-day world. This is because there is a reluctance to be committed to the harmonisation of domestic policy objectives; prices respond only in a limited fashion of fluctuations

in the pressures of demand, and elasticities of demand in international trade have in general turned out to be quite low, at least in the short run. For these reasons, a rigidly fixed exchange rate regime has never been advanced as serious possibility in any of the recent discussions of reform of the international monetary system.

18.2 Merits and Demerits of Flexible Exchange Rate

Flexible, *floating* or *fluctuating* exchange rates are determined by market forces. The monetary authority does not intervene for the purpose of influencing the exchange rate. Under a regime of freely fluctuating exchange rates, if there is an excess supply of a currency, the value of that currency in foreign exchange markets will fall. It will lead to depreciation of the exchange rate. Consequently, equilibrium will be restored in the exchange market. On the other hand, shortage of a currency will lead to appreciation of exchange rate thereby leading to restoration of equilibrium in the exchange market. These market forces operate automatically without any intervention on the part of monetary authorities. We study below the case for and against flexible exchange rates.

Merits of Flexible Exchange Rates

The following merits are claimed for a system of flexible exchange rates :

1. A system of flexible exchange rates is simple in the operative mechanism. The exchange rate moves automatically and freely to equate supply and demand, thereby clearing the foreign exchange market. It does not allow a deficit or surplus to build up and eliminates the problem of scarcity or surplus of any one currency. It also avoids the need to induce changes in prices and incomes to maintain or restore equilibrium in the balance of payments.
2. Under it, the adjustment is continual. The adjustment in the balance of payments are smoother and painless as compared with the fixed exchange rate adjustments. In fact, flexible exchange rates avoid the aggravation of pressures on the balance of payments and the periodic crises that follow disequilibrium in the balance of payments under a system of fixed exchange rates. There is an escape from the various corrective measures that are adopted by the governments whenever the exchange rate depreciates or appreciates.
3. Under this system, autonomy of the domestic economic policies is preserved. Modern governments are committed to maintain full employment and promote stability with growth. They are not required to sacrifice these objectives of full employment and economic growth in order to remove balance of payments disequilibrium under a regime of flexible exchange rates. As pointed out by Johnson, " The fundamental argument for flexible exchange rates is that they allow countries autonomy with respect to their use of monetary, fiscal and other policy instruments, by automatically ensuring the preservation of external equilibrium."
4. Since under a system of flexible exchange rates disequilibrium in the balance of payments is automatically corrected, there is no need to accommodate gold movements and capital flows in and out of countries.
5. There is no need for foreign exchange reserves where exchange rates are moving freely. A deficit country will simply allow its currency to depreciate in relation to foreign currency instead of intervening by supplying foreign exchange reserves to the other country to maintain a stable exchange rate. According to Sohmen, a system of flexible exchange rates removes the problem of international liquidity. The shortage of international liquidity is the result of pegged exchange rates and intervention by monetary authorities to prevent fluctuations beyond narrow limits. When exchange rates are flexible, speculators will supply foreign exchange to satisfy private liquidity needs. Individuals, traders, banks, governments and others would, of course, continue to hold liquid assets in the form of gold or foreign exchange, but these holdings would be working reserves for purposes other than the maintenance of a fixed external value of the country's currency.
6. As a corollary to the above, when foreign exchange rates move freely, there is no need to have international institutional arrangements like the IMF for borrowing the lending short-term funds to remove disequilibrium in the balance of payments.

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7. Again, according to Sohmen, the system of flexible exchange rates re-inforces the effectiveness of monetary policy. If a country wants to increase output, it will lower interest rates under a regime of flexible exchange rates, the lowering of interest rates will result in an outflow of capital, a rise in the spot rate for the currency which will, in turn, cause exports to rise and imports to fall. The increased exports will tend to rise domestic prices, or income or both. Thus a favourable trade balance will reinforce the expansionary effects of lower interest rates on domestic spending, thereby making monetary policy more effective. The above process will be reversed if the country wants to fight inflation by raising interest rates.
8. A system of flexible exchange rates does not require the introduction of complicated and expansive trade restrictions and exchange controls. Thus the cost of foreign exchange restrictions is removed.
9. Again, as a corollary to the above, the world can get rid of competitive exchange rate depreciation and tariff warfare among nations and there shall be no need of forming custom unions and currency areas which are the concomitant results of the system of fixed exchange rates.

Demerits of Flexible Exchange Rates

The advocates of fixed exchange rates advance the following arguments against a system of flexible exchange rates :

1. Critics of flexible exchange rates point out that market mechanism may fail to bring about an appropriate exchange rate. The equilibrium exchange rate in the foreign exchange market at a point of time may not give correct signals to concerned parties in the country. This may lead to wrong decisions and malallocation of resources with the country.
2. It is difficult to define a freely flexible exchange rate. It is not possible to have an exchange rate where there is absolutely no official intervention. Government may not intervene directly in the foreign exchange market, but domestic monetary and fiscal measures do influence foreign exchange rates. For instance, if domestic saving is more than domestic investment, it means that the country is a net investor abroad. The outflow of capital will bring down the exchange rate. All this may be due to the indirect impact of government policies. Further, in the absence of any understanding among governments about exchange rate manipulation, the system of flexible exchange rates might lapse into anarchy, for every country would try to establish favourable exchange rates with other countries. This may lead to retaliation among nations and result in war of exchange rates with disruptive effects on trade and capital movements. Thus some sort of understanding or agreement concerning exchange rates is implied in a regime of flexible exchange rates.
3. Another disadvantage of this system is that frequent variations in exchange rates, create exchange risks, breed uncertainty and impede international trade and capital movements. For instance, an Indian who imports from Japan and promises to pay in yen runs the risk that the rupee price of yen will rise above expected levels. And the Japanese exporter who sells for rupees runs the risk that the yen price of rupees will fall below expected levels. Similarly, exchange risks may be even more serious for long-term capital movements. This is because under a system of flexible exchange rates borrowers and lenders will be discouraged to enter into long-term contacts and the possibility of varying burden for servicing and repayment may be prohibitive.

Bo Sodersten has shown how flexible exchange rates increase uncertainty for traders and have a dampening effect on the volume of foreign trade. Assume that a country is under a regime of flexible exchange rates, the general price level is stable and the balance of trade is in equilibrium. Suppose the demand for the country's exports decreases, this leads to depreciation of the country's currency which, in turn, raises import prices and brings a fall in imports. Consequently, importers will be adversely affected. At the same time, exporters will gain with the increase in the prices of export goods. But the volume of exports will decline whereby they will also be losers. Opposite will be the consequences when currency appreciates. Suppose there is an abnormal inflow of short-term capital to country A which tends to raise its exchange rate. This will, in turn, increase the cost of A's exports in terms of foreign currencies, thereby lowering the

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levels of output, employment and income in its export industries. The rise of exchange rate will also lower the cost of imports, thus discouraging output and employment in A's import competing industries. Thus importers and exporters will be at a disadvantage and the volume of trade will decline. This is illustrated in terms of Sodersten's diagram, shown as Figure 1. The horizontal line *S* shows stable or fixed exchange rate, and the zig-zag line *F* shows flexible exchange rate. At time t_0 the exchange rate is the same *E*, under both flexible and fixed rate systems. At t_1 , the currency depreciates and the flexible exchange rate moves to *D* while the fixed exchange rate is at the same level $D_1 (= E)$. Since import prices have risen, imports will be discouraged and exports will be encouraged. At time t_2 the currency appreciates and the flexible rate moves to *A* whereas the fixed rate remains at the same level $A_1 (= E)$.

At *A* import prices fall. Imports are encouraged and exports are discouraged. So exports will be at a disadvantage at *A* than at A_1 and importers will gain at *A* than at A_1 . Similar will be at time t_3 with fixed exchange rate at C_1 and the flexible exchange rate at *C* level. Thus fluctuations of the exchange rate around a trend value will increase risks for exports and imports that will adversely affect the volume of foreign trade.

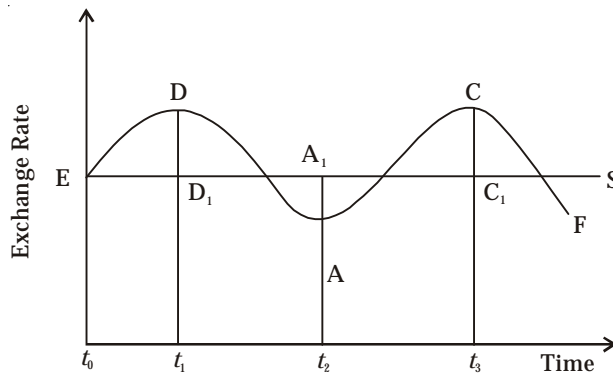


Figure 18.1

4. Under this system, speculation adversely influences fluctuations in supply and demand for foreign exchange. Critics argue on the basis of empirical evidence that speculation is destabilising which means that it aggravates fluctuations in exchange rate. "It is often said that speculators see a decline in the exchange rate as a signal for further decline, and that their actions will cause the movement in the exchange rate to be larger than it would be in the absence of speculation. In such a case, speculation is destabilising. Sodersten points out that "the limited experience from the 1920s seem to show that speculation at that time was destabilising. Since floating rates became common in 1973, fluctuations in exchange rates have been large. It seems that some of the excessive fluctuations have been caused by destabilising speculation." Such fluctuations increase uncertainties in trade and reduce the volume of foreign trade further.
5. Another serious drawback of a flexible exchange rate system is its inflationary bias. Critics argue that under a system of flexible exchange rates, a depreciation of the exchange rate leads to a vicious circle of inflation. Depreciation leads to a rise in import prices thereby making import goods more expensive. This leads to cost-push inflation. At the same time, export prices rise. Consequently, with the rise in the cost of living, money wages rise which, in turn, intensify inflation. But an appreciation of currency is unlikely to lead to a reduction in wages and prices when imports prices fall. This is because wages and prices are sticky downwards. This leads to an asymmetry which produces that Triffin calls *ratchet effect* that imparts an inflationary bias to the economy.
6. The main case against the system of flexible exchange rates is that it breaks up the world market. There is no one money which serves as a medium of exchange, unit of account, store of value and a standard of deferred payment. Under it, the world market for goods and capital would be divided. Resources allocation would be vastly sub-optimal. In fact, such a system clearly would not last long, according to Kindleberger.

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From the above merits and demerits of fixed and flexible exchange rates, it is difficult to conclude that either rigidly fixed or freely floating exchange rates are likely to be put into practice.

Self-Assessment

1. Choose the correct options:

- (i) Floating exchange rates
 - (a) tend to correct balance of payments imbalances
 - (b) reduce the uncertainties and risks associated with international trade
 - (c) increase the world's need for international monetary reserves
 - (d) tend to expand the volume of world trade
- (ii) If Canada has floating exchange rates, and a capital account deficit
 - (a) Canada has a current account deficit
 - (b) Canada is losing international reserves
 - (c) Canada has a current account surplus
 - (d) Canada is gaining international reserves
- (iii) If a nation has a current account deficit of 6 and a capital account surplus of 2
 - (a) the nation gains 8 in international reserves
 - (b) the nation loses 8 in international reserves
 - (c) the nation gains 4 in international reserves
 - (d) the nation loses 4 in international reserves
- (iv) When the balance on Canada's official settlement account is positive
 - (a) Canada's balance on current + capital accounts is negative, and we are gaining international reserves
 - (b) Canada's balance on current + capital accounts is positive, and we are gaining international reserves
 - (c) Canada's balance on current + capital accounts is negative, and we are losing international reserves
 - (d) Canada's balance on current + capital accounts is positive, and we are losing international reserves
- (v) Which of the following is a disadvantage of a flexible exchange rate system?
 - (a) nations must keep large reserves of gold or foreign currencies
 - (b) flexible rates usually tend to produce inflation
 - (c) uncertainty that tends to inhibit trade
 - (d) all of the above

18.3 Summary

- The present unit discusses the exchange rate adjustment policies that have been in vogue from time to time with the establishment of the IMF. Before we discuss them, it is instructive to have a theoretical interlude relating to fixed and fluctuating exchange rates.
- As with a hard peg, the drawback of a fixed exchange rate is that it gives the government less scope to use monetary and fiscal policy to promote domestic economic stability. Thus, it leaves countries exposed to idiosyncratic shocks not shared by the country to which it has fixed its currency. As explained above, this is less of a problem than with a hard peg because imperfect capital mobility does allow for some deviation from the policy of the country or countries to which you are linked. But the shock would need to be temporary in nature because a significant deviation could not last.

- In fact, a regime of fixed exchange rates presupposes uniformity of domestic policy objectives and response of prices to fluctuations in demand. Such a system would undoubtedly run into severe difficulties in the present-day world. This is because there is a reluctance to be committed to the harmonisation of domestic policy objectives; prices respond only in a limited fashion of fluctuations in the pressures of demand, and elasticities of demand in international trade have in general turned out to be quite low, at least in the short run.

18.4 Key-Words

1. Fixed exchange rate : A fixed exchange rate, sometimes called a pegged exchange rate, is also referred to as the Tag of particular Rate, which is a type of exchange rate regime where a currency's value is fixed against the value of another single currency or to a basket of other currencies, or to another measure of value, such as gold.

A fixed exchange rate is usually used to stabilize the value of a currency against the currency it is pegged to. This makes trade and investments between the two countries easier and more predictable and is especially useful for small economies in which external trade forms a large part of their GDP.
2. Flexible exchange rate : A flexible exchange-rate system is a monetary system that allows the exchange rate to be determined by supply and demand. Every currency area must decide what type of exchange rate arrangement to maintain. Between permanently fixed and completely flexible however, are heterogeneous approaches.

18.5 Review Questions

1. What do mean by fixed exchange rate?
2. Explain the merits and demerits of fixed exchange rate.
3. Discuss Filexible exchange rate.

Answers: Self-Assessment

1. (i) (b) (ii) (c) (iii) (c) (iv) (c) (v) (c)

18.6 Further Readings



1. Dornbusch, Rudiger and Stanley Fischer (1980). \Exchange Rates and the Current Account." American Economic Review 70, 960 {71.
2. Frenkel, Jacob A. and Michael L. Mussa (1985). \Asset Markets, Exchange Rates, and the Balance of Payments: The Reformulation of Doctrine." See Jones and Kenen (1985), pp. 679{747.
3. Isaac, Alan G. (1989). \Wealth E_ects and the Current Account with Endogenous Terms of Trade." Journal of Macroeconomics 11(4), xxx.
4. Jones, Ronald W. and Peter B. Kenen, eds. (1985). Handbook of International Economics, Volume 2. Amsterdam: North Holland Publishing Co.
5. Kenen, Peter (1985). \Macroeconomic Theory and Policy: How the Closed Economy was Opened." See Jones and Kenen (1985), Chapter 13, pp. 625{677.
6. Kouri, Pentti J.K. (1976, May). \The Exchange Rate and the Balance of Payments in the Short Run and the Long Run: A Monetary Approach." Scandinavian Journal of Economics 78(2), 280{304.

Unit 19 : Expenditure Reducing and Expenditure Switching Policies

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Objectives

After reading this Unit students will be able to:

- Discuss the Expenditure Reducing or Changing Policies.
- Explain the Expenditure Switching Policy.

Introduction

The need for BOP adjustment, particularly of deficit disequilibrium, is clear. A nation's ability to absorb deficits is broadly limited by its stock of official international reserves — gold and generally acceptable foreign currencies — and the willingness of foreign countries to hold its currency as part of their own international reserves. Accommodating short-term capital borrowings can help in prolonging BOP deficit adjustments, but they cannot be relied upon indefinitely. Another constraint to BOP adjustment is the desire on the part of countries to achieve high levels of national income and employment consistent with price stability. Internal balance cannot be sacrificed for the sake of external balance.

In the previous unit, we tried to show how BOP adjustment tends to come about more or less automatically under two different exchange rate systems — one, where the exchange rate is fixed but prices, interest rates, income levels and capital flows are free to fluctuate; and second, where there is freely fluctuating exchange rate system. For the effective working of this automatic adjustment mechanism, there is no need for any policy action by the government; in fact, government non-intervention is a condition.

It should be stressed, however, that neither of the two self-equilibrating systems conforms to reality. There is very little 'automaticity' in BOP adjustment in the real world. Government intervention, today, is a fact of life in all countries — developed or underdeveloped. The 'visible hand' of government is seen everywhere — in controlling prices, interest rates, income levels or exchange rates. Indeed, BOP adjustment has become largely a matter of policy. Government have come to use a wide variety of policy instruments to achieve BOP equilibrium; and the government policies designed to produce 'external balance' cannot afford to ignore questions related to 'internal balance'. As a matter of fact, in ordering national priorities, internal balance claims a definite precedence over external balance, practically, in every country in the world. What we have essentially today, are disequilibrium systems of national economies.

Let us now proceed to discuss the BOP adjustment methods or policy instruments. They can be grouped under three broad categories as follows :

- (a) The Expenditure Reducing or Changing Policies.
- (b) The Expenditure Switching Policy : Devaluation.
- (c) Exchange Controls.

Each one of them merits a detailed discussion, which we will undertake in this unit.

19.1 The Expenditure Reducing or Changing Policies

The *expenditure changing policies*, also called 'expenditure adjusting' policies, refer to the policies that are aimed at changing (reducing or increasing) the aggregate expenditure in the domestic economy. Countries facing BOP deficit due to trade deficits adopt expenditure reducing policies. In a macroeconomic framework, trade deficit (TD) can be measured as follows. We know that at equilibrium,

$$Y \equiv C + I + G + X - M$$

If $M > X$,

$$M - X \equiv TD$$

By substitution, Y at equilibrium can be expressed as

$$Y \equiv C + I + G - TD$$

Thus,

$$TD \equiv (C + I + G) - Y$$

This equation implies that there is trade deficit because $(C + I + G) > Y$, i.e., aggregate expenditure exceeds aggregate income. It means that trade deficit can be reduced or eliminated by reducing the aggregate expenditure that equals $C + I + G$. Let us now discuss the working and effectiveness of these policy measures in eliminating the *BOP imbalances*. In this part of analysis, we will assume a *fixed exchange rate* and free flow of capital.



The policies that are used to reduce the aggregate expenditure include : (i) *monetary policy*, (ii) *fiscal policy*, and (iii) *monetary-fiscal policy mix*.

BOP Adjustment through Monetary Policy

Monetary policy refers to the measures adopted by the monetary authority to increase or decrease the money supply and availability of credit.¹ A monetary policy aimed at increasing the money supply and availability of credit to the public is called **expansionary monetary policy** or 'easy money policy.' And, a monetary policy aimed at decreasing the money supply and availability of credit to the public is called **contractionary monetary policy** or 'dear money policy.' We will analyse here the working of monetary policy in correcting the adverse BOP position and in restoring equilibrium in the BOP, all other things remaining the same.

The working and effects of monetary policy are illustrated in Figure 19.1. Suppose that the internal economy of a country is in equilibrium at point E_1 , the point of intersection between the IS and LM_1 schedules. The external balance (EB) at different combinations of income levels and interest rates is given by the EB schedule which is the same as BOP schedule. Note that EB schedule does not pass through the internal equilibrium point E_1 . Therefore, the internal and external sectors are not

1. The monetary measures that are used to change the money supply include (a) bank rate, the rate at which central bank lends money to banks or discounts the bills of the commercial banks, (b) open market operation, i.e. buying and selling the government bond and treasury bills in the open market, and (c) statutory cash reserve ratio, the ratio of term deposits that commercial banks are, by statute, required to maintain in the form of cash reserves.

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simultaneously in equilibrium. Note also that the initial internal equilibrium point E_1 is on the right side and below the external balance schedule EB . It means that the country is faced with a BOP deficit at income level OY_1 and interest rate Or_2 .

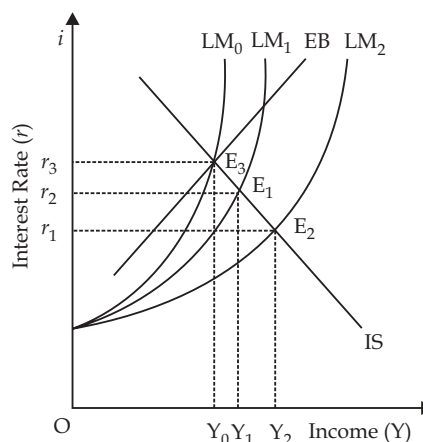


Figure 19.1: BOP Adjustment through Monetary Policy

Now the question arises : What kind of monetary policy would be helpful in solving the problems of BOP deficit and surplus and in achieving internal and external balance ? To answer this question, let us suppose that a country is facing BOP deficit. In that case, the answer is that a **contractionary monetary policy** would reduce the BOP deficit. Let us now examine what happens when the government adopts a *contractionary monetary policy*, that is, a policy of reducing money supply. When a contractionary monetary policy is adopted, it decreases money supply. The decrease in money supply reduces the BOP deficit in two ways.

On the one hand, a decrease in money supply shifts the LM_1 schedule leftward towards LM_0 and the internal equilibrium point upward to the left. This takes the internal equilibrium point closure to the EB schedule. It means reduction in the BOP deficits. The reason is, a decrease in money supply increases the rate of interest. Increase in the interest rate reduces domestic investment. A fall in investment reduces the level of income and hence the level of imports. Reduction in imports reduces the trade deficit and therefore the BOP deficit.

On the other hand, increase in the interest rate results in short-term capital inflow which too reduces the BOP deficit. As shown in Figure 19.1, a decrease in money supply shifts the LM schedule from LM_1 to LM_0 . This shift increases the interest rate to Or_3 . The rise in the domestic rate of interest works as an incentive for foreign investment. This causes inflow of foreign capital. The inflow of foreign capital reduces the capital account deficits. As a result, the BOP deficit decreases and it may disappear finally.

Let us now see what kind of monetary policy is adopted by a country to correct its BOP disequilibrium of *surplus* nature. In that case, the country adopts an **expansionary monetary policy**. When the government adopts a policy of monetary expansion, the schedule LM_1 will shift rightward to LM_2 , all other things remaining the same, and the internal equilibrium shifts to point E_2 . Point E_2 is below and to the right of the EB schedule. It means that monetary expansion would increase the BOP deficit and reduce BOP surplus. The reason is that monetary expansion reduces the rate of interest. This has a two-way effects on the economy. On the one hand, it increases the domestic investment which increases the level of income and increase in income increases imports, widening the gap between exports and imports. That is, monetary expansion enhances the trade deficit and reduces trade surplus. On the other hand, a lower interest rate leads to capital outflow which decreases capital account surplus. Thus, the combined effect of the monetary expansion is deterioration in the BOP surplus.

The conclusions that emerge from the analysis of effects of the monetary policy is that a contractionary monetary policy reduces the BOP deficits and helps in achieving internal and external balance, and an expansionary monetary policy reduces country's BOP surplus.

BOP Adjustment through Fiscal Policy

Before we explain the working and effectiveness of fiscal policy in bringing about BOP adjustment, let us recall that *fiscal policy* refers to the deliberate changes made by the government in its expenditure and taxation policies or both. Fiscal policy can be used as an effective tool of changing the aggregate demand and aggregate expenditure in the economy. Like monetary policy, a fiscal policy can be an **expansionary fiscal policy** or a **contractionary fiscal policy**. An expansionary fiscal policy increases the aggregate demand and a contractionary fiscal policy reduces the aggregate demand. A country adopting an expansionary fiscal policy increases government spending or decreases the level of taxation or adopts both the measures simultaneously. A country adopting a contractionary fiscal policy cuts down government spending or raises the level of taxation, or uses both measures simultaneously. What kind of fiscal policy is adopted depends on the causes and the nature of BOP disequilibrium and the need for BOP adjustment.

Let us now examine the effect of fiscal policy on the BOP deficit and BOP surplus. We will analyze first the effect of fiscal policy on BOP deficit—the major problem. With a view to avoiding complications that might arise due to other policy measures, we assume that the government uses only fiscal policy to influence country's balance of payments, all other factors remaining the same.

The effect of fiscal policy on the BOP is illustrated in Figure 19.2. Let us assume that a country is faced with BOP deficit and examine what kind of fiscal policy would be appropriate for restoring the BOP to equilibrium. Suppose that internal equilibrium of the country is given at point E_2 , the point of intersection between the LM and IS_2 schedules and that country's external balance is given by schedule EB. Note that the internal equilibrium point E_2 falls below and to the right of the EB schedule. This indicates that the country is faced with a BOP deficit indicated by point J.

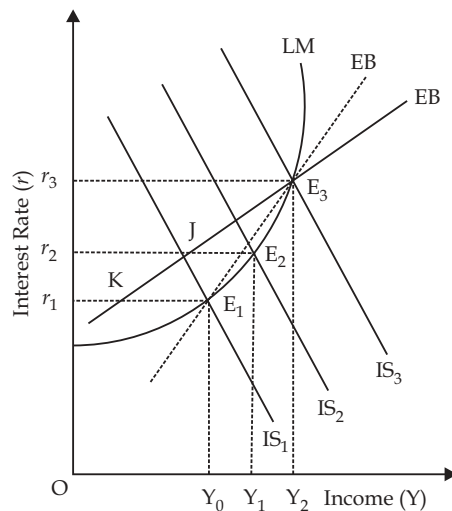


Figure 19.2: BOP Adjustment through Fiscal Policy

It may be added here that there is some ambiguity in the effectiveness of both *expansionary* and *contractionary* fiscal policies. To explain it further, let us examine the effect of contractionary and expansionary fiscal policies alternatively on the country's BOP position. Let us first look at the effect of a *contractionary fiscal policy* on the BOP deficit and internal and external balance.

When the government adopts a **contractionary fiscal policy**, leaving other things undisturbed, the schedule IS_2 shifts downward to IS_1 . A new internal equilibrium is reached at point E_1 , the point where schedule IS_1 intersects with LM schedule. At this point of equilibrium, the BOP deficit increases further as indicated by point K which is further away from equilibrium point E_1 . That is, contractionary fiscal policy causes BOP to deteriorate. What is worse, the level of income decreases, causing increase in unemployment. The reason for the deterioration in the BOP is the decrease in interest rate from Or_2 to Or_1 which causes outflow of capital. Although, a contractionary fiscal policy decreases simultaneously the imports by decreasing national income, the outflow of capital outweighs the decrease in the imports caused by the decrease in income. Therefore, country's BOP position deteriorates.

Notes

It is, however, important to note that whether a contractionary fiscal policy worsens or improves EB depends on the slope of the EB schedule in relation to the LM curve. Given the slope of the LM schedule, for example, if EB schedule rotates anticlockwise, it will get closer to the equilibrium point E_1 , showing improvement in EB, as shown by EB' schedule. It is however equally important to note that the improvement in EB achieved by contractionary fiscal policy results in a lower level of equilibrium income and employment and also at a lower rate of interest. Fall in the interest rate may cause outflow of capital which will have adverse effect on the economy.

Let us now examine the effect of **expansionary fiscal policy**. An expansionary fiscal policy will shift the schedule IS_2 upward to IS_3 . Note that the schedules IS_3 , LM and EB all intersect at point E_3 . This implies that E_3 is the point of internal and external balance which determines the income level at OY_2 and interest rate at Or_3 . Although imports increase due to increase in income, capital inflow and increase in imports are presumably in balance. Therefore, external sector is in balance with the internal sector.

The effect of expansionary fiscal policy on BOP may appear to be ambiguous. As noted above, the effect of expansionary fiscal policy depends on the slope of the EB schedule. If EB schedule has a higher slope as shown by the dashed schedule EB' and LM schedule is curvilinear, then there will be two equilibrium points E_1 and E_3 . Then the country will have to make a choice between the expansionary fiscal policy and contractionary fiscal policy. An expansionary fiscal policy is however a clear choice as it gives a higher level of income and employment and solves the problem of BOP deficit.

Monetary-Fiscal Mix and BOP Adjustment

In the preceding sections, we have examined the effects of monetary and fiscal policies assuming the only one of these policies is adopted at a time. In practice, however, most countries use a monetary-fiscal mix to correct their adverse BOP. We have noted that a contractionary monetary policy is helpful in correcting the BOP deficit, whereas an expansionary fiscal policy is preferable for correcting the BOP deficit. So a country opting for using a monetary-fiscal mix for correcting its BOP deficit would adopt a combination of **contractionary monetary** and an **expansionary fiscal policy**. We will discuss here how a policy-mix works to correct the BOP deficit and to attain internal and external balance, assuming **fixed exchange rate** and relative interest-elasticity of capital mobility.

The working of monetary-fiscal mix is illustrated in Figure 19.3 which is a combination of Figures 19.1 and 19.2. Suppose that the initial internal equilibrium of a country is given at point E, the point of intersection between schedules IS_1 and LM_3 . Since point E is below and to the right of EB schedule, the country has a BOP deficit. Now the problem before the country is how to correct the BOP deficit. To achieve this goal, the country has three alternative options : (i) to use only monetary policy, (ii) to use only fiscal policy, and (iii) to use a mix of monetary and fiscal policies. The effects of monetary and fiscal policies have already been discussed. This part of the analysis will however be repeated here briefly to show the links between the three options. We will then analyse the combined effect of monetary-fiscal mix.

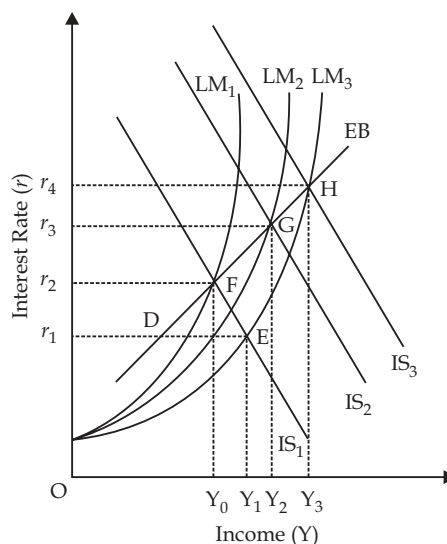


Figure 19.3: Monetary-Fiscal Policy-Mix for Eliminating BOP Deficit

Suppose that the country chooses to use only **monetary policy**, and adopts a contractionary monetary policy to correct its BOP deficit. The use of a contractionary monetary policy makes its original LM schedule (LM_3) shift leftward to LM_1 intersecting schedule EB at point F. Now all the three schedules, EB, LM_1 and IS_1 , intersect at point F. Point F is therefore the point of internal and external balance. The BOP deficit is totally eliminated. But the country has to pay a high cost in terms of fall in the national income from OY_1 to OY_0 and a rise in the interest rate from Or_1 to Or_2 . It means that the BOP deficit is eliminated at the cost of decrease in national income and increase in unemployment. This is, of course, a heavy cost of eliminating the BOP deficit.

Let us now look at the effects of **fiscal policy** in isolation. When a country decides to use only fiscal policy to eliminate its BOP deficit, it will have to use an expansionary fiscal policy. To begin the analysis, let us suppose that the economy is in equilibrium at point E with BOP deficit and the government uses expansionary fiscal policy. The use of an expansionary fiscal policy shifts the original IS schedule from IS_1 to IS_3 which intersects with schedules EB and LM_3 at point H. All the three schedules, EB, LM_3 and IS_3 , intersect at point H. Point H is, therefore, the point of internal and external balance. The BOP deficit is totally eliminated. What are the other consequences? The level of national income increases from OY_1 to OY_3 and interest rate increases from Or_1 to Or_4 . This increase in national income and interest rate has a very high inflationary potential. It means that the BOP deficit is eliminated at the risk of high potential inflation. Inflation involves high economic and social costs. This solution may therefore not be socially and politically desirable.

Let us now examine the effect of **monetary-fiscal mix**. When the government decides to use a policy-mix, it will have to adopt a contractionary monetary policy combined with an expansionary fiscal policy. A policy-mix approach requires using an expansionary fiscal and a contractionary monetary policy. The expansionary fiscal policy shifts schedule IS_1 to IS_2 and contractionary monetary policy shifts schedule LM_3 to LM_2 . In Figure 19.3, schedules IS_2 , LM_2 and EB intersect at point G. Point G is therefore the point of internal and external balance. This solution is comparatively better and preferable as it mitigates the disadvantages of both monetary and fiscal policies used separately. Unlike monetary policy, it does not cause unemployment and decrease the level of income, and unlike fiscal policy, it does not create conditions for hyper inflation though some inflation will be there. A policy mix approach is, therefore, preferable to other options available to the country.

Assignment Dilemmas in Policy Mix

The use of monetary-fiscal mix is not as simple and straightforward as concluded above. The choice and implementation of monetary-fiscal mix is a complex problem in the real world. Complexity arises on account of the following two factors.

- (i) **Lack of Perfect Knowledge and Accurate Data** : The policy makers, in general, do not have perfect knowledge about the shape and place of the IS and LM schedules. Nor do they have complete and accurate data about the economic variables used in the IS-LM model. The policy-makers have data, often inaccurate, only on national income, unemployment, inflation, interest rate and balance of payments. This is just not sufficient to determine the shape, slope and place of the IS and LM curves. Therefore, it is immensely difficult to formulate an optimum monetary-fiscal mix. Besides, what is largely unknown and unpredictable—but a crucial requirement in the formulation of an appropriate monetary-fiscal mix—is the possible outcome of interaction between the monetary and fiscal policies. It is therefore, extremely difficult to adjust the monetary and fiscal levers to find an optimal combination of monetary-fiscal policy mix.
- (ii) **Disagreement on the Role and Effectiveness of Monetary and Fiscal Policies** : As discussed earlier, the economists disagree on the role and effectiveness of monetary and fiscal policies. The disagreement on the role and effectiveness of monetary and fiscal policies and the ensuing a prolonged debate has created more confusion rather than providing guidelines for finding an appropriate policy mix. The final choice is then made on the political and ethical grounds which conflict often with economic goals.

The nature and the classification of problems involved in policy choice is illustrated in Figure 19.4. The schedule EB is the same as in Figure 19.3. It represents the path of external balance. The vertical line, IB, represents the path of *internal balance*. It is drawn through the

Notes

possible points of intersection between the IS and LM schedules. The schedule IB need not necessarily be a vertical line. Depending on the placement of the IS and LM schedules, it may have a negative

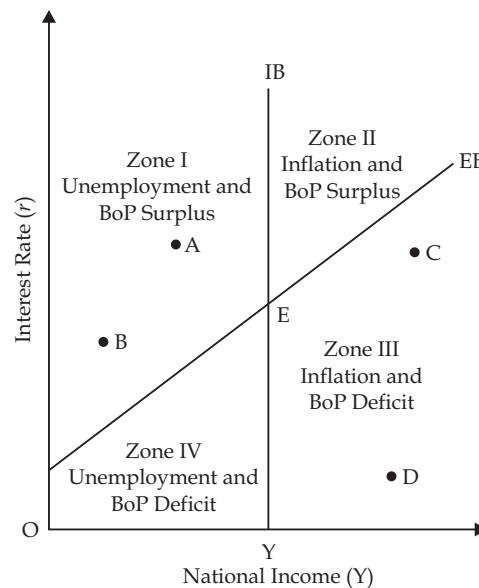


Figure 19.4: The Four Zones of Different Kinds of Internal and External Disequilibrium

slope or a positive slope. However, we proceed to analyse the conflicting results of different kinds of monetary fiscal mix by assuming a vertical IB schedule. As shown in Figure 19.4, schedules IB and EB intersect at point E. Point E is, therefore, the only point of simultaneous internal and external balance. The points on schedule IB are the points of only internal equilibrium, and points on schedule EB are the points of only external equilibrium. All other points in the diagram, *e.g.*, points A, B, C and D, are the point of both internal and external disequilibrium. The intersecting schedules IB and EB, divide the diagram into four zones of internal and external disequilibrium. Each of these zones represents different kinds of economic problem. The different kinds of economic problems associated with each zone is listed below.

- Zone I : Unemployment and BOP surplus
- Zone II : Inflation and BOP surplus
- Zone III : Inflation and BOP deficit
- Zone IV : Unemployment and BOP deficit

An economy which is not operating at point E or at any point on the IB and EB schedules is operating on a point in any of these four zones. From policy point of view, Zones I and III are the zones of dilemma. The dilemma is that no uniform policy can be adopted if the economy is operating on any two different points in any of these zones. For example, points A and B in Zone I need two different combinations of monetary and fiscal policies. At point A the authorities are required to cut down the government spending and to increase money supply in order to move towards point E. But, when the economy is operating at point B, the authorities will be required to do the opposite. Similarly, two opposite policies are required on points C and D in Zone III.

The situation is not as bad in Zones II and IV because, in these two zones, the direction of change in at least the government spending is predictable. For example, in Zone II the authorities are required to reduce the government spending irrespective of the point on which the economy is placed. Similarly, in Zone IV, the government spending has to be increased on any point in the zone. But, the direction of change in money supply remain uncertain as in case of Zones I and III.

The Mundellian Policy Assignment

Notes

Mundell suggested in 1962 and again in 1968 a solution to the problem of policy predicament discussed in the preceding section. We discuss here briefly the Mundellian approach to the problem of *policy assignment*. According to Tinbergen rule, *a policy instrument should be assigned a target which it can hit relatively most effectively*. Going by this rule, monetary policy or fiscal policy should be assigned a task which it can perform most successfully in achieving internal and external balance. Since monetary and fiscal policies have both their relative advantages and disadvantages, these policies need to be so combined that their positive effects are maximized and negative effects minimized.

Mundell's rule of policy assignment for the four different kinds of economic problems in four zones are summarized as follows :

| Zone | Nature of Imbalance | Monetary Policy | Fiscal Policy |
|------|------------------------------|-----------------|----------------|
| I | Unemployment and BOP surplus | Expansionary | Expansionary |
| II | Inflation and BOP surplus | Expansionary | Contractionary |
| III | Inflation and BOP deficit | Contractionary | Contractionary |
| IV | Unemployment and BOP deficit | Contractionary | Expansionary |

However, Mundellian solution has its own problems. These policy assignment rules offer a stable solution to the problem of internal and external balance only when (i) policies are chosen judiciously and implemented without discretionary changes, and (ii) there is no time lag in the working of monetary and fiscal policies. These are big conditions, particularly, the condition regarding the time lag. Therefore, Mundell's solution is considered to be **unstable** and, therefore, impracticable.



Notes

Mundell developed a *principle of effective market classification* and suggested a rule for efficacy and stability of policy measures following Tinbergen's rule.

Problems in Applying Mundellian Monetary-Fiscal Policy Mix

The monetary-fiscal policy-mix as a means to attaining internal and external balance has strong theoretical underpinning. In reality, however, this approach has serious practical problems.

One, the Mundellian approach assumes that policy-makers are fully aware of (i) the internal balance path (*i.e.*, IB schedule), (ii) the external balance path (*i.e.*, the EB schedule), (iii) the zone in which the economy is placed, and (iv) how away is the economy placed from the IB schedule. In reality, however, these parameters are unknown and difficult to determine.

Two, for lack of necessary data, determination of an exact combination of monetary and fiscal measures compatible with one another for achieving internal and external balance is an extremely difficult task. Therefore, some arbitrariness has to be there in the policy formulation. Besides, political considerations do affect the decision-making. Any mismatch between the monetary-fiscal mix on these accounts affects the efficacy of the policy mix.

Three, the monetary-fiscal mix is based on some predictable relationship between the interest rate and capital flows. This relationship may be disturbed after the implementation of the policy for some non-economic factors, *e.g.*, political uncertainty, labour unions, war, etc. For example, India was facing a double digit inflation—11.25 percent in June-July 2008. The GOI was in dilemma as to what mix of monetary and fiscal policies to adopt. Only interest rate was marginally raised, which had not proved to be effective.

Four, the Mundellian approach does not provide a 'true adjustment mechanism'. This approach considers capital flows as autonomous, whereas, in reality, a considerable part of capital flows is accommodating, not autonomous. The accommodating capital flows are not affected by the change in the interest rate. This condition may seriously affect the efficacy of Mundell's solution.

Notes

Finally, Mundellian approach assumes (implicitly) that other countries are not affected by the monetary-fiscal policy mix adopted by a country, and even if they are, they do not react. In reality, however, a great deal of conflict arises between the nations. Finding an appropriate monetary-fiscal mix compatible with that of other countries is rather an impossible task. And, even if a compatible monetary-fiscal mix is somehow worked out by trial and error, it may push the economy away from the equilibrium point rather than bringing it closer to the equilibrium.

19.2 The Expenditure Switching Policy : Devaluation

In the preceding section, we have discussed the *expenditure changing policies*, viz., monetary and fiscal policies, aimed at changing the aggregate spending with the purpose of correcting the adverse BOP. We have discussed also the practical problems associated with expenditure changing policies and the problems related to monetary-fiscal mix. In this section, we discuss the *expenditure switching policies* to solve the problem of BOP deficit and their effectiveness.

The *expenditure-switching* policy is one that aims at attaining the internal and external balance by switching the domestic expenditure from imported to domestic goods or the other way round depending on the need of the country. The expenditure-switching policy works through the change in relative prices of imports and domestic goods. Under free market conditions, the relative prices of imports and domestic goods change on their own either due to **exchange depreciation** or **exchange appreciation**. Exchange depreciation or appreciation is the result of the market mechanism. The market determined *exchange appreciation* is often a major cause of BOP deficit as it increases imports and decreases exports. It does so because it makes imports cheaper than domestic goods. Therefore, the nations suffering from BOP deficit are forced to adopt policy measures to reverse the process, i.e., to switch the domestic demand from foreign to domestic goods. The policy instrument that is generally used for expenditure-switching is **devaluation**. **Devaluation** is a deliberate policy action taken by the government to devalue the domestic currency in terms of gold or in terms of the foreign currency to which the domestic currency is tied. Devaluation has, in fact, been used as a major policy tool for expenditure switching combined, generally, with restrictive monetary and/or fiscal policy.

In this section, we discuss first the working mechanism of currency devaluation and then its effectiveness. Since BOP deficit is the major concern of most countries, we confine our discussion to how devaluation helps in eliminating BOP deficit. We discuss here the following aspects of devaluation as an expenditure-switching policy measure.

- (i) Working mechanism of devaluation,
- (ii) BOP adjustment under devaluations,
- (iii) Effectiveness of devaluation, and
- (iv) Empirical evidence of its effectiveness.

Working Mechanism of Devaluation

When the central bank of a country (RBI in India) reduces the value of the domestic currency officially in terms of foreign (reserve) currency, it is called devaluation. The objective of devaluation is to reverse the flow of domestic consumer expenditure from imported to domestic goods. Devaluation changes the exchange rate *ipso facto*. The immediate effect of change in the exchange rate is the change in the relative prices of imports and domestic goods. In effect, devaluation increases the price of imported goods in relation to the prices of domestic goods. Therefore, if demand for imports is price-elastic, the demand for imported goods decreases and the demand for their domestic substitutes increases. In the process, expenditure on imports decreases and that on the domestic goods increases. This is what is called 'expenditure-switching, i.e., consumer expenditure is switched from foreign goods to domestic goods. Due to expenditure-switching, imports decrease in the devaluing country and exports from the country increase. This reverses the trade balance. This is how devaluation is supposed to correct the adverse BOP.

Let us now explain the mechanism by which devaluation helps in correcting BOP deficit in a two-country model under the following simplifying assumptions.

- (i) There are only two countries, A and B, with currencies A_c and B_c , respectively;
- (ii) There are only two goods, X and Y, involved in the foreign trade between the countries A and B.
- (iii) Country A exports X to country B and imports Y, and country B exports Y and imports X from country A.
- (iv) There is no capital movement between the two countries, A and B.

The mechanism by which devaluation eliminates the BOP deficit is illustrated in Figure 19.5. Panel (a) shows the trade in commodity Y. Suppose that the exchange rate between A's currency (A_c) and B's currency (B_c) is given as $B_c 1 = A_c 5$. Given the exchange rate, A's demand for B's exportable Y and B's supply schedule for Y are given as shown in panel (a). Note that A's demand schedule and B's supply schedule intersect at point K. Thus, the trade equilibrium between the two countries in respect of commodity Y is determined at 350 units of Y at price 30 B_c per unit.

Likewise, panel (b) shows the trade in commodity X between the two countries. At exchange rate $B_c 1 = A_c 5$, country B's demand schedule and country A's supply intersect at point R determining export and import of commodity X at 100 units at price 60 B_c per unit.

We can now work out pre-devaluation *trade balance* for country A from data given in panels (a) and (b) of Figure 19.5.

Pre-devaluation Trade Balance of Country A

$$A's \text{ import} = 350 (Y) \times B_c 30 = B_c 10,500$$

$$A's \text{ export} = 100 (X) \times B_c 60 = B_c 6,000$$

$$\text{Pre-devaluation trade deficit} = B_c 4,500$$

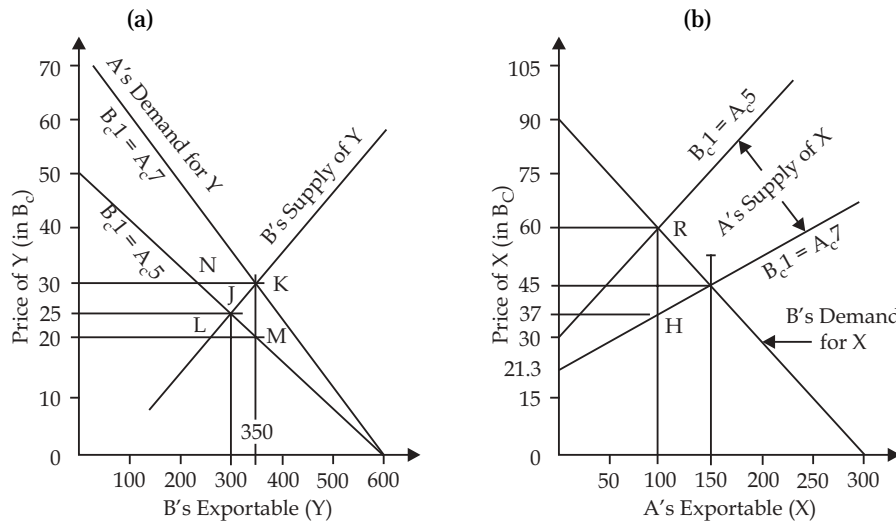


Figure 19.5: The Effects of Devaluation on Imports and Exports

Since, by assumption, there is no capital movement between the two countries, *trade deficit* equals the BOP *deficit*. As shown in pre-devaluation trade balance accounting, country A is thus faced with a BOP deficit of $B_c 4,500$. Now let us suppose that country A decides to use devaluation to correct its BOP deficit and devalues its currency by, say, 40% so that a new exchange rate is fixed at $B_c 1 = A_c 7$. The immediate effect of devaluation is the increase in the price of commodity Y (A's importable) in terms of A's currency. For example, the equilibrium price increases from $A_c 150 (= 30 B_c \times 5)$ to $A_c 210 (= 30 B_c \times 7)$. Assuming that A's demand for Y is price-elastic, its demand for Y decreases by NK as shown in panel (a). Since this applies to all the prices, A's demand schedule for Y shifts downward as shown in panel (a). As a result of shift in A's demand schedule (B's supply schedule remaining the same) trade is determined at point J. It shows that A's import of Y decreases from 350 units to 300 units.

Notes

What happens to A's exports after devaluation? Due to devaluation of A's currency (A_c), B's currency is automatically appreciated. The rate of appreciation equals 28.58%.² It means that A's exportable (commodity X) becomes cheaper by 28.58% in terms of B's currency (B_c). As a result, A's supply curve shifts rightward as shown in panel (b). B's demand schedule for X remaining the same, A's new supply schedule intersects B's demand schedule at point T. The new equilibrium point shows decrease in the price of A's exportable (X) from B_c 60 to B_c 45. Consequently, B's demand for A's exportable X increases from 100 units to 150 units.

Let us now find the post-devaluation trade balance and the effect of devaluation on BOP deficit.

| Post-devaluation Trade Balance | |
|--|---------------|
| A's import = 300 (Y) \times B_c 25 | = B_c 7,500 |
| A's export = 150 (X) \times B_c 45 | = B_c 6,750 |
| Post-devaluation trade deficit | = B_c 750 |

We can now find the effect of devaluation on A's BOP deficit by comparing the trade balance before and after devaluation. Our calculations show that devaluation reduces the trade deficit from B_c 4500 to B_c 750. It reduces, thereby, BOP deficit to the same extent.

Devaluation and Internal-External Balance

In the preceding section, we have shown how devaluation switches the domestic expenditure from imported goods to domestic goods; how it reduces imports and increases exports; and how it restores external balance. However, restoring external balance alone is not enough: external balance must coincide with internal balance. For, if there is internal imbalance, it may create conditions for decline in income and employment which may lead to external imbalance. In this section, we explain how devaluation—the expenditure switching policy instrument—can help restoring external balance with internal balance.

The process of restoration of internal and external balance is illustrated in Figure 19.6 in AD-AS model. Let us suppose that the aggregate demand (AD) and aggregate supply (AS) curves of a country, say A, are given as AD and AS curves in Figure 19.6 and country A in equilibrium at point E. Note that the external balance curve EB passes through the equilibrium point E. It means that country A has attained both internal and external balance at equilibrium point E.

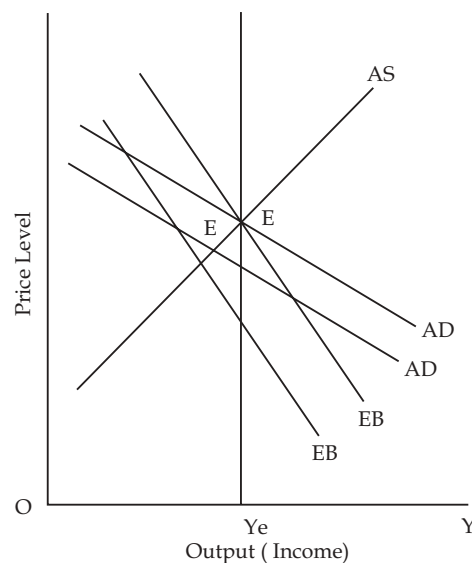


Figure 19.6: Devaluation and Internal-External Balance

2. The rate of appreciation = $\frac{7-5}{7} (100) = 28.58$.

Now suppose that for some extraneous reason, export of country A declines, resulting in fall in output, employment and in incomes. As a result, aggregate demand curve AD shifts downward to AD' shifting the equilibrium point to E'. This leads to fall in the imports and exports of the country. Consequently, the external balance curve EB shifts downward to the position of EB'. However, as shown in Figure 19.6, country A is in equilibrium at point E'. Note that point E' happens to fall above the EB' curve. It means that at point E', there is external imbalance with a trade deficit.

Let country A now devalue its currency. As a result, prices of its imports increase and prices of its export goods decrease. Assuming imports and exports are both price-elastic, imports of the country would decline and its exports would increase. As a result, its external balance curve EB' would shift upward to its original position of EB passing through equilibrium point E. Trade deficits would be wiped out. This marks the restoration of both internal and external balance. Whether devaluation of currency alone restores the internal and external balance in reality depends on a number of internal and external factors, like trade policy of other countries, reaction of other countries to devaluation by a country, the elasticity of exports and imports etc. These factors are discussed in the following section.

The Effectiveness of Devaluation : The Marshall-Lerner Condition

It may appear from the foregoing analysis that devaluation is a sure cure of BOP deficit. It may however not be true in reality. The effectiveness of devaluation depends on certain conditions. For example, decrease in imports due to devaluation depends on price and income elasticity of imports, availability of substitutes, and customs. However, the most important condition of the effectiveness of devaluation is, what is called, the **Marshall-Lerner condition**. The Marshall-Lerner condition states that *when the sum of the price-elasticities of the demand for imports of any two countries trading their goods between them is greater than unity, then devaluation (or exchange depreciation) increases exports and decreases imports*. In our example of countries A and B, the effect of devaluation on country A's BOP can now be summarized in terms of Marshall-Lerner condition as follows.

- (i) *Devaluation reduces BOP deficit when the sum of price-elasticity of A's demand for imports and price-elasticity of B's demand for A's exportables, in absolute terms, is **greater than unity**. This condition is satisfied by the demand curves given in Figure 19.5. Therefore, devaluation reduces the BOP deficit.*
- (ii) *Devaluation increases BOP deficits when the sum of price-elasticity of demand for imports of country A and the price-elasticity of demand for its exportable, in absolute terms, is **less than unity**. To prove this point, let us look back at Figure 19.5. In case A's demand for Y is perfectly inelastic, then the devaluation would shift the equilibrium from point K to M in panel (a) of Figure 19.5. This indicates no change in A's imports. At point M, demand exceeds supply by LM. Therefore, import price moves up to point K. It means that devaluation is ineffective under this condition. On the other hand, if B's demand for X is perfectly inelastic, devaluation will make equilibrium shift from point R to H which means that A's export does not change. But, export price goes down from B_c 60 to B_c 37. As a result, A's export earning decreases. The final position is that A's import bill does not decrease and export earnings decrease. Consequently, A's BOP deficit increase due to devaluation.*
- (iii) *When the sum of price-elasticity of demand for importable of country A and the price-elasticity of demand for its exportable, in absolute terms, equals one, then devaluation leaves the trade balance of country A unchanged and hence the BOP remains unaffected.*

The Empirical Evidence and the J-Curve Effect

The empirical evidence shows the Marshall-Lerner condition (i) holds, in general, for all industrial nations, except for Australia and the UK. That is, the sum of price-elasticities of imports and exports for the industrialized nations have been found to be considerably higher than unity. It may, therefore, be concluded that devaluation is an effective method of correcting adverse BOP in the developed countries.

However, further empirical evidences show that this conclusion holds in the long run, not in the short run. In the short run, devaluation causes a deterioration in the BOP. The short-run deterioration in BOP is caused by the tendency of import prices to increase faster in the domestic market immediately after devaluation than the export prices, without much change in the quantities imported and exported.

Notes

The reason is that the existing export-imports deals cannot be reversed. Importers will have to import at post-devaluation higher prices, causing a high import bill. The result is deterioration in the BOP. In the *long run*, however, imports begin to decline and exports pick up at post-devaluation prices. Consequently, the deterioration in the trade balance is halted and over time BOP begins to improve. When the overall trend is plotted on a graph paper, it produces a J-shape curve, as shown in Fig. 19.7. The economists call it *J-curve effect* of devaluation.

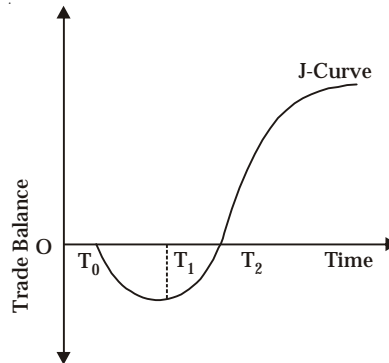


Figure 19.7: The J-Curve Effect

In Fig. 19.7, vertical axis measures balance of trade ($X - M$) and horizontal axis measure 'time'. Point T_0 marks the time of devaluation. As the figure shows, the balance of trade deteriorates immediately after devaluation, *i.e.*, during the period from T_0 to T_1 . It begins to improve after time T_1 and deficit begins to decrease. It is only after some time, say time T_2 , that devaluation becomes effective and balance of payment goes into surplus. The duration of period between point T_0 and T_2 varies from country to country.

Self-Assessment

1. Choose the correct options:

- (i) If a nation's balance on current account is positive and it has neither a deficit nor surplus in its overall balance of payments:
 - (a) its imports exceed its exports
 - (b) foreign purchases of its assets exceed its purchases of assets abroad
 - (c) it has a trade deficit
 - (d) it has a capital and financial account deficit
- (ii) Suppose the exchange rate is currently \$1 = 6 Norwegian kroner. If a Big Mac costs \$2.50 in the U.S. and there is purchasing power parity, the price of a Big Mac in Oslo is:
 - (a) 40 kroner
 - (b) 25 kroner
 - (c) 15 kroner
 - (d) 12.5 kroner
- (iii) A purchase of foreign reserves by a country's Central Bank would be reflected as:
 - (a) An entry in a separate account off the balance of payments.
 - (b) A credit in the financial account and a debit in the financial account.
 - (c) A credit in the current account and a debit in the financial account.
 - (d) A debit in the current account and a credit in the financial account.
- (iv) What does the term "balance of payments deficit" refer to?
 - (a) A negative statistical discrepancy.
 - (b) A positive statistical discrepancy.
 - (c) A decline in official international reserves.
 - (d) An increase in official international reserves.

- (v) If the U.S. buys Web services from an Indian company, and the Indian company deposits the payments in the branch of an American bank, it will be reflected in the U.S. balance of payments as:
- A credit in the current account and a debit in the current account.
 - A credit in the financial account and a debit in the financial account.
 - A debit in the current account and a credit in the financial account.
 - A credit in the current account and a debit in the financial account.
- (vi) What is official settlements balance?
- Another name for the financial account.
 - One of the accounts in the balance of payments.
 - Another name for the capital account.
 - Everything in the balance of payments except for the official foreign reserves.

19.3 Summary

- The need for BOP adjustment, particularly of deficit disequilibrium, is clear. A nation's ability to absorb deficits is broadly limited by its stock of official international reserves — gold and generally acceptable foreign currencies — and the willingness of foreign countries to hold its currency as part of their own international reserves. Accommodating short-term capital borrowings can help in prolonging BOP deficit adjustments, but they cannot be relied upon indefinitely.
- The *expenditure changing policies*, also called 'expenditure adjusting' policies, refer to the policies that are aimed at changing (reducing or increasing) the aggregate expenditure in the domestic economy. Countries facing BOP deficit due to trade deficits adopt expenditure reducing policies.
- Monetary policy* refers to the measures adopted by the monetary authority to increase or decrease the money supply and availability of credit.¹ A monetary policy aimed at increasing the money supply and availability of credit to the public is called **expansionary monetary policy** or 'easy money policy.' And, a monetary policy aimed at decreasing the money supply and availability of credit to the public is called **contractionary monetary policy** or 'dear money policy.'
- The conclusions that emerge from the analysis of effects of the monetary policy is that a contractionary monetary policy reduces the BOP deficits and helps in achieving internal and external balance, and an expansionary monetary policy reduces country's BOP surplus.
- Practice, however, most countries use a monetary-fiscal mix to correct their adverse BOP. We have noted that a contractionary monetary policy is helpful in correcting the BOP deficit, whereas an expansionary fiscal policy is preferable for correcting the BOP deficit. So a country opting for using a monetary-fiscal mix for correcting its BOP deficit would adopt a combination of **contractionary monetary** and an **expansionary fiscal policy**.
- The *expenditure-switching* policy is one that aims at attaining the internal and external balance by switching the domestic expenditure from imported to domestic goods or the other way round depending on the need of the country. The expenditure-switching policy works through the change in relative prices of imports and domestic goods. Under free market conditions, the relative prices of imports and domestic goods change on their own either due to **exchange depreciation** or **exchange appreciation**.

19.4 Key-Words

- Expenditure switching policy : It is a policy which government tends to switch the consumer's purchase on foreign goods to domestic goods whereas expenditure dampening policy which also known as expenditure reducing policy is a reducing the consumption of imported goods to ensure the balance of payment of a country to become worsen.

Notes

19.5 Review Questions

1. What is meant by expenditure reducing? Discuss.
2. Discuss expenditure reducing and expenditure switching policy.
3. What is the Mundellian Policy adjustment? Explain.

Answers: Self-Assessment

1. (i) (d) (ii) (c) (iii) (b) (iv) (c) (v) (c)
(vi) (d)

19.6 Further Readings



1. Dornbusch, Rudiger and Stanley Fischer (1980). "Exchange Rates and the Current Account." *American Economic Review* 70, 960 {71.
2. Frenkel, Jacob A. and Michael L. Mussa (1985). "Asset Markets, Exchange Rates, and the Balance of Payments: The Reformulation of Doctrine." See Jones and Kenen (1985), pp. 679{747.
3. Isaac, Alan G. (1989). "Wealth Effects and the Current Account with Endogenous Terms of Trade." *Journal of Macroeconomics* 11(4), xxx.
4. Jones, Ronald W. and Peter B. Kenen, eds. (1985). *Handbook of International Economics, Volume 2*. Amsterdam: North Holland Publishing Co.
5. Kenen, Peter (1985). "Macroeconomic Theory and Policy: How the Closed Economy was Opened." See Jones and Kenen (1985), Chapter 13, pp. 625{677.
6. Kouri, Pentti J.K. (1976, May). "The Exchange Rate and the Balance of Payments in the Short Run and the Long Run: A Monetary Approach." *Scandinavian Journal of Economics* 78(2), 280{304.

Unit 20 : Forms of Economic Cooperation

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Objectives

After reading this Unit students will be able to:

- Discuss the International Economic Cooperation and International Trade.
- Explain Coordination of Macroeconomic Policy and Exchange Rates.

Introduction

Although some form of economic cooperation has been a part of international political relations during most of this century, American interest in international economic cooperation has increased substantially in recent years. This heightened desire to coordinate economic policies with the other major economic powers is in part a response to the special problems of the 1980s : the sharp fluctuations in exchange rates, the massive shifts in the trade balance, and the explosive growth of debt among many of the developing countries.

The increased interest in international economic cooperation also reflects the more fundamental changes in the world economy that have been evolving over a longer period of time. The world economy has become more interdependent : international trade has increased relative to production for domestic markets and international capital markets have become larger and more active. In addition, the United States has lost the dominant economic position that it enjoyed in the early postwar years. Japan and the European Economic Community (EEC) have become major economic powers that compete effectively in trade and finance.

How has policy coordination evolved in this changing environment ? How have the changes in the world economy altered the problems and possibilities of international economic cooperation ? What are the prospects and potential benefits and costs of increased cooperation in the future ?

Co-operation in macroeconomic and exchange rate policies generally means redirecting and increasing the economic role of governments. In contrast, cooperation in international trade involves reducing the interference of governments in private markets. Experience with the international debt problem has shown little explicit intergovernmental cooperation except for the Paris Club negotiations that deal with debts to the governments themselves. It is useful therefore to begin by considering the macroeconomic and exchange rate coordination and then to turn to cooperation in international trade and in dealing with international debt.

20.1 International Economic Cooperation

The objective development of diverse economic, scientific, and technological ties among individual countries and groups of countries and between the socialist and capitalist socioeconomic and political systems, based on the principles of independence, equality, and mutual advantage. Essentially the process represents the intensification of the international division of labor.

The scientific and technological revolution, which has accelerated the international division of labor, and the growing economic strength of the USSR and of the entire world socialist system have increased the importance of international economic cooperation. Only after the appearance of socialism did genuine economic cooperation become possible, based on the principles of sovereignty and equality between states and peoples. The forms of economic cooperation within the socialist community and those within the capitalist economic system, while superficially similar, reflect the fundamental differences between the two opposing economic and sociopolitical systems.



Did u know? The world socialist economic system affects the nature of economic cooperation not only between capitalist and socialist countries but also between the developed capitalist countries and the developing countries.

As a result of the continuing scientific and technological revolution, no single country, not even the most developed, can produce with equal efficiency the entire range of modern products. Therefore individual countries or groups of countries attempt to limit the range of goods they produce and to produce them in huge quantities so as to meet not only their own needs but also the needs of other countries in exchange for the commodities that the other countries produce for export. In this way trade expands and a single world economy develops, each country providing primarily the goods it produces better and more cheaply than others.

International economic cooperation among the capitalist countries developed from simple forms of trade and exchange. At the imperialist stage, there arose a complex and diverse system of international industrial ties between monopolies and monopolistic associations (such as international cartels, syndicates, and concerns), and intergovernmental economic unions were formed. The capitalist division of labor arose and developed, closely linked with the world capitalist market. Within the capitalist system, international economic cooperation is accompanied by fierce competition among monopolies and countries, by the intensification of irreconcilable contradictions, by the growing effect of the law of uneven economic and political development of capitalist countries in the age of imperialism, and by the narrowing of imperialism's sphere of influence and the growth of the world socialist system.

International economic cooperation includes foreign trade, credit relations, cooperation between countries in extracting natural resources, compensation arrangements, and extensive scientific and technical cooperation—for example, trade in licenses to produce certain goods and to use certain technological methods, joint scientific studies, and collaboration on major technical projects, in the construction of plants and other enterprises, in geological exploration, and in training national personnel.

The expansion of international trade and other economic ties has been stimulated by the development of international credit. The USSR maintains credit agreements with many countries, primarily the socialist and the developing countries. Of the 2,765 plants and other enterprises being built with Soviet technical assistance, 1,898 are in socialist countries and 858 are in developing countries; 1,680 projects had been completed as of Jan. 1, 1973 (1,263 in socialist countries and 412 in developing countries). The Soviet Union offers credits to banks and businesses in the advanced capitalist countries. It is participating in the construction of a major metallurgical complex in France, providing machinery and equipment on credit. The Soviet Union is also seeking extensive long-term credits from the advanced capitalist countries, particularly to draw more rapidly into the economy the natural resources

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of Siberia and the Soviet Far East and to modernize Soviet industry and agriculture. The capitalist countries also stand to gain from such arrangements. Their unused monetary reserves can be put to profitable use; their credits can be repaid in products they need, such as natural gas, petroleum, and metals; and they can raise their level of employment.

The Soviet Union has developed such cooperation on both a bilateral and a multilateral basis with socialist countries wishing to obtain Soviet fuel, mineral, and forest resources, and has attracted capital investments from these countries. It contributes its own capital to such projects both in other socialist countries and in developing countries. Industrial complexes have been built on Soviet territory under bilateral agreements with the FRG, Japan, France, Finland, and the United States.



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An important form of international economic cooperation is the collaboration of two or more countries in building enterprises for extracting and utilizing natural resources.

International economic cooperation in the form of compensation arrangements is becoming increasingly common. After receiving credit and purchasing the necessary equipment and technology from another country, the USSR constructs enterprises to produce a commodity, repaying the credit with the commodity. The Soviet Union also participates in the construction of enterprises in other countries on the understanding that its credits and technical assistance will be repaid with the goods produced. It has concluded long-term compensation agreements (five, ten, or more years) for cooperation in extracting natural resources in countries to which it has extended credit.

Rapid scientific and technological progress, the increased scale of production, and the Soviet Union's economic goals require more rapid modernization of many enterprises and even entire industries, creating many opportunities for the development of scientific and technical cooperation. The Soviet Union is expanding its scientific and technical ties particularly with the COMECON countries, and it provides much technical assistance to developing countries. Hundreds of modern enterprises and other industrial units have been built abroad with the help of Soviet scientific and technological achievements, and tens of thousands of licenses, designs, and sets of technical data have been transferred. The sale and purchase of licenses to produce machines, instruments, or equipment or of licenses to employ technological processes for extracting or processing materials have become important in the USSR's economic relations with advanced capitalist countries. Companies in the United States, the FRG, Japan, France, and other countries are seeking to buy licenses in the USSR, and the Soviet Union in turn is purchasing an increasing number of licenses from these countries. This attests to the high level of Soviet technology, which is aiding the advance of technical ideas throughout the world and which is able to make use of the most recent scientific and technical developments abroad.

The various forms of international economic cooperation enable the Soviet Union and the other countries of the socialist community to benefit economically from specialization and cooperation within the scope of both the socialist and the world-wide division of labor, to bring natural resources into the economy more rapidly, and to accelerate the economic development of each country. A significant growth in the production of high-quality export goods allows the socialist countries to compete successfully on the world market with firms in the capitalist countries, to increase their sales and the influx of foreign currency, to raise the general quality of goods in the country, to increase output, and thereby to accomplish more effectively and rapidly their main task—that of raising the people's material and cultural living standard.

20.2 Coordination of Macroeconomic Policy and Exchange Rates

It is useful, however, to focus on the more explicit types of macro-economic and exchange rate coordination and, in this context, to consider two extreme positions. At one extreme is the idea that each country should manage its own domestic monetary and fiscal policies with a concern for its

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own well-being only and without trying to take into account the effect of its policies on the other countries of the world. A government may understand that its economy is affected by the policies adopted elsewhere and that its own policies affect other countries but still choose to make its policy decisions unilaterally. At the other extreme is the view that each (industrial) country should formulate its economic policies in explicit coordination with every other (industrial) country so that the policies are chosen to maximize world economic welfare as a whole, or at least to achieve a configuration of policies from which no country can be made better off without making some other country worse off.

Although this statement of the alternatives might suggest that international coordination is unambiguously better than the uncoordinated pursuit of national self-interest, it is important to distinguish between the theoretical possibilities of idealized coordination and the realistic potential gains of practical coordination. In practice, despite its aspirations, international coordination may produce results that are not as satisfactory as those that result from each country's uncoordinated pursuit of national self-interest.

One reason why coordination may fail to achieve an improvement in world economic performance is that, as Stanley Fischer notes in his background paper, extensive statistical studies indicate that the monetary and fiscal policies of each country have only a relatively small effect on the level of economic activity and inflation in other countries. The potential gain from even perfect coordination is therefore likely to be small and easily overwhelmed in practice when the policies are less than ideal.

International policy coordination may fail to improve overall economic performance simply because the political officials who participate in these international negotiations choose policies that are politically convenient rather than economically sound. We know that this happens all too frequently at the domestic level.



Why should we expect the same officials to follow a higher standard just because they are engaged in an international negotiation ?

The process of international negotiation may also be counterproductive because it diverts attention and action from needed domestic policy changes. Governments may explicitly delay painful domestic policy changes as part of an international negotiating strategy designed to induce policy changes abroad that would make the domestic changes unnecessary. The emphasis on international negotiations may also rechannel domestic political pressures away from needed reforms. Recent experience provides ample examples of both dangers. Germany and Japan have failed to stimulate domestic demand enough because of their reliance on expectations of continued exchange rate stability. The U.S. Administration has diverted attention from the need for budget deficit reduction by emphasizing the favorable effects on U.S. exports of greater fiscal expansion abroad.

The ability of international macroeconomic coordination to permit countries to pursue more expansionary policies than would otherwise be possible is both a potential benefit and a potential danger. When a single country tries to expand by itself, it may soon find that rising imports create a balance of payments problem. A coordinated expansion by a group of trading partners can eliminate this balance of payments constraint and permit all of the countries to expand more than any of them could have done alone. When all economies are operating well below capacity, such coordinated expansion can provide gains for all. But the ability of coordination to circumvent the balance of payments constraint on expansionary policies also creates the temptation to overexpand. Without the automatic market check of a deteriorating balance of payments, governments may pursue inflationary policies that would otherwise be avoided. On balance, whether one regards the ability to achieve an expansion that would not be possible without coordinated action as a reason to favor coordination or to oppose it depends on the likelihood that governments will use that ability to pursue inflationary policies.

There is a further problem that arises because it is generally far more difficult to alter budget and tax policies than to change monetary policy. Macroeconomic coordination may in practice be limited to

a coordination of only monetary policies. This is particularly the case in the United States because fiscal policy is controlled by the Congress which, even when its majority is of the same party as the President, may be reluctant to enact the tax changes, particularly tax increases, that a President wants. But the reliance on monetary rather than fiscal policy will also be true in other countries because of the greater political attention generated by changes in fiscal policy and the greater difficulty of reversing expansionary fiscal changes if they turn out to be inappropriate.

A monetary expansion or contraction is not generally an appropriate substitute for a fiscal change. For example, while tighter monetary policy in the United States could offset the aggregate demand effect of large budget deficits, it would not reduce real interest rates. More generally, monetary and fiscal policies that have equal expansionary effects at home can have opposite effects on the rest of the world. A fiscal expansion that raises real interest rates and appreciates the currency will unambiguously raise foreign exports and thereby stimulate the foreign economy. In contrast, a monetary expansion that temporarily reduces real interest rates will depreciate the currency and thereby reduce foreign exports.

The need to rely on monetary policy rather than fiscal policy is particularly a problem when the international coordination focuses on exchange rate stabilization. If the United States had been induced to stabilize the dollar in the early 1980s, it would have done so by increasing the money supply rather than by cutting the budget deficit. This in turn would have increased the rate of inflation in the United States. Moreover, although the rise in inflation and in the price level would be sufficient to reduce the nominal value of the dollar, the real exchange rate might soon be back to the level that would have prevailed without any change in monetary policy. A commitment to exchange rate stabilization that leaves real exchange rates unchanged but causes higher inflation must be regarded as counterproductive.

20.3 International Trade

Although the primary source of the unprecedented rise of the U.S. trade deficit between 1982 and 1986 was the increase in the value of the dollar and therefore indirectly the growth of the U.S. budget deficit, the political response to the trade deficit has been an increase in attention to the specific problems of foreign competition and international trade practices. Unfortunately, much of this response has been a harmful backsliding from free trade to various sorts of restrictions on the flow of goods to the United States. Recent years have witnessed the cartelization of key international markets, the introduction of so-called voluntary restraints on a wide range of exports to the United States, and the tightening of U.S. import quotas on textiles with the threat of much more protectionism to come as a result of the pending trade legislation.

Of course, not all of the political response to the trade deficit has been harmful. The concern about the U.S. trade balance has spurred a more assiduous pursuit of policies aimed at reducing foreign import barriers, especially those of Japan and some of its East Asian neighbors. Although these policies cannot eliminate the massive U.S. trade deficit as long as the dollar remains overvalued, they can increase the opportunity for American firms and employees to do more in those areas where they have a comparative advantage.

Cooperation in international trade requires not active comanagement of the economic environment but a negotiated reduction in government interference with private flows of trade and investment. The golden rule of international trade is the double negative injunction : “Do not unto others what you would not have them do unto you.”

The major trade rounds of the past quarter century have been successful in achieving sharp reductions of tariffs and quotas. But now, as several of the conference participants noted, improving the international allocation of resources requires a reorientation of the trade negotiations.

Government subsidies to domestic industries engaged in international competition must be reduced. This is true of agricultural policies in every major industrial country. It is also increasingly true of a wide range of manufacturing industries in Europe as well as in many developing countries. Progress in these areas will be difficult not only because such subsidies restrain powerful domestic political

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interests but also because it will involve extending international trade negotiations outside traditional lines into subjects previously regarded as domestic concerns.

A similar extension of international trade negotiations into domestic policies is required to reduce purchasing restrictions of government buyers in transportation and telecommunications and to improve the international allocation of investment, the production of services, and the protection of patents and other forms of intellectual property. The current Uruguay Round of trade negotiations has recognized the importance of these issues. Only time will tell whether the potential gains from a better international division of labor and the negotiating skills of the parties will together be powerful enough to overcome the powerful domestic interests that stand in their way.

20.4 Developing Country Debts

Despite the conference's overarching theme of international cooperation and coordination, a striking feature of the presentations and discussion about the less-developed countries' (LDC) debt problem was the virtual absence of explicit references to intergovernmental coordination. That aspect of the conference is of course just a reflection of the way the international debt problem has been handled in practice.

Despite the desire of some commercial bankers, academic economists, and others to get governments individually and collectively to play a larger part in the resolution of the debt problem, the governments have been understandably reluctant to assume such a role. When governments have acted, they have generally acted in a largely independent role. The United States provided several "bridge" loans at an early stage in the debt crisis until commercial bank and IMF funding could be arranged. The Japanese government is now proposing to provide longer term credits on a unilateral basis and through the IMF, the World Bank, and the regional development banks. Individual governments have modified domestic banking rules to strengthen their domestic banks and to encourage those banks to continue lending to the debtor countries, with an informal, ad hoc coordination of these banking "reforms" through the regular meetings of central bankers at the Bank for International Settlements. The only explicit intergovernmental coordination of policy was through the Paris Club meetings at which the governments acted in their roles as creditors of the specific borrowing nations. The IMF was the only official participant that played an explicit major role in dealing with the debts to private creditors.

Despite the very limited official government coordination in this area, there has been extensive private coordination among the commercial banks around the world. The coordination committees of representatives of the major commercial banks have negotiated with the individual debtor governments on behalf of all the creditor banks. The debt problem has been managed by private international cooperation rather than by government coordination.

Looking ahead, the key role for official international cooperation in dealing with the debt problem should be maintaining open markets for the exports of the debtor countries. To service their debts while maintaining politically acceptable economic growth, the debtor countries must export. An increase in their exports will require a reorientation of domestic policies by the debtor nations, but it will only be possible if the creditor nations keep their markets open. Since the open markets of each creditor nation help all other creditors, and since the creditor nations as a whole have strong financial, economic, and political interests in the successful evolution of the debt problem, there is a powerful case for a coordinated agreement to maintain open markets for the products of these countries.

Self-Assessment

1. Choose the correct options:

- (i) Those groups of countries which seek mutual economic benefit from reducing interregional trade and tariff barriers are called:
- | | |
|-----------------------------------|--------------------------|
| (a) cartels. | (b) strategic alliances. |
| (c) multinational market regions. | (d) confederations. |
| (e) none of the above. | |

- (ii) Successful economic union requires favorable conditions in all of the following areas EXCEPT:
- (a) economics. (b) politics.
 - (c) culture. (d) religious.
 - (e) geography.
- (iii) The demise of the was the result of economically stronger members not allowing for the needs of the weaker ones.
- (a) World Bank
 - (b) International Monetary Fund
 - (c) Latin American Free Trade Association (LAFTA)
 - (d) Council for Mutual Economic Assistance (COMECON).
 - (e) None of the above fits.
- (iv) The is the most basic economic integration and cooperation arrangement.
- (a) free trade area (b) customs union
 - (c) common market (d) political union
 - (e) regional cooperation for development
- (v) A(n) provides its members with a mass market without barriers to impede the flow of goods and services. This is a lower level stage of economic partnership.
- (a) free trade area (b) customs union
 - (c) common market (d) political union
 - (e) regional cooperation for development
- (vi) is a comprehensive trade agreement among Canada, Mexico, and the United States that creates one of the largest and richest markets in the world.
- (a) MERCOSUR (b) NAFTA
 - (c) LAFTA (d) SETA
 - (e) USCANMEX
- (vii) The comprehensive trade agreement that addresses doing business within North America is appropriately named:
- (a) MERCOSUR. (b) NAFTA.
 - (c) LAFTA. (d) SETA.
 - (e) USCANMEX.

20.5 Summary

- Economic cooperation is part of the more important process of international political cooperation. Successful coordination of policies in the economic arena can strengthen political and national security ties. Unfortunately, however, all too often the process of international economic negotiation creates new sources of conflict and tensions as each participating country seeks to impose its own preferences and judgments on the economic policies of the other governments. In recent months some governments have resented U.S. pressures to pursue more stimulative fiscal and monetary policies than they thought prudent, and they have complained about the implicit threat of using the exchange rate as a weapon to force compliance with American views. There is a danger that the process of international cooperation in macro-economic and exchange rate management, despite its lofty aspirations, can be harmful politically as well as economically. While economic coordination and negotiation can, under the right circumstances, make a positive contribution to worldwide economic well-being, it is important not to exaggerate the potential gains from such coordination nor to pursue it in ways that threaten broader political harmony.

Notes

20.6 Key-Words

1. Comprehensive Economic and Trade Agreement : The Comprehensive Economic and Trade Agreement (CETA) is a proposed free trade and copyright agreement between Canada and the European Union. Many of its provisions on copyright are identical to controversial ACTA, which was recently rejected by the European Parliament; this has raised concerns with proponents of internet freedom and civil liberties.
2. Economic integration : Economic integration refers to trade unification between different states by the partial or full abolishing of customs tariffs on trade.

20.7 Review Questions

1. What is meant by international economic cooperation? Explain.
2. Discuss microeconomic policy.
3. Write a short note on International trade.

Answers: Self-Assessment

1. (i) (c) (ii) (d) (iii) (c) (iv) (e) (v) (a)
(vi) (b) (vii) (b)

20.8 Further Readings



1. For a nontechnical discussion of this, see Martin Feldstein, "Correcting the Trade Imbalance," *Foreign Affairs*, Summer 1987.

Unit 21 : Static and Dynamic Effects of a Custom Union and Free Trade Organization

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21.1 The Trade Regimes

21.2 The Effects of Customs Union

21.3 Summary

21.4 Key-Words

21.5 Review Questions

21.6 Further Readings

Objectives

After reading this Unit students will be able to:

- Understand the Trade Regimes and the Effects of Customs Union.
- Discuss the conclusions and Recommendations.

Introduction

In the aftermath of the break-up of the Soviet Union, trade among the new independent states collapsed. Estimates vary, but the drop in volume terms may have been as much as 50% between 1992 and 1995 (see table 1). We have discussed the reasons and the consequences of this drastic decline elsewhere (Michalopoulos and Tarr, 1994; 1996).

The three Baltic countries decided, early on, to reorient their trade to Europe and the rest of the world; and all three have signed association agreements with the European Union.

The other twelve countries (members of the Commonwealth of Independent States (CIS)), attempted, mostly unsuccessfully, to maintain trade with each other through a variety of policy interventions, including through the establishment of a Free Trade Agreement (FTA).

The purpose of this unit is to analyze the economic implications of a customs union among transition economies, such as the one established by these four countries, for both existing and prospective members. The next section of the paper describes in broad terms the current trade regimes of the CIS, including the arrangements that govern trade with each other. The third section analyses the economic effects of the customs union, in part through the use of a partial equilibrium model described in detail in the appendix. The focus is on the effects of joining the customs union for countries which have not done so. As most CIS members are applying for accession to the WTO, this section also draws some implications of the customs union for WTO accession. The last section summarizes the policy conclusions and implications of the analysis. While the analysis focuses on the CIS countries, some of the findings may be of relevance to other countries in transition--for example, among the countries of the former Yugoslavia, that are considering the establishment of similar arrangements.

21.1 The Trade Regimes

While the trade policy framework continues to be evolving and varies considerably among countries, the following main features characterize the trade regimes of CIS members: On the import side, most countries have so far avoided the establishment of quantitative restrictions or licensing. But protectionist pressures are rising and leading to the imposition of such controls in some countries (e.g., Uzbekistan) or sectors (alcoholic beverages-- in Russia).

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Did u know? In 1995 three countries, Belarus, Kazakstan and Russia established a customs union which the Kyrgyz Republic agreed to join in 1996.

The tariff regimes vary considerably, but on the whole countries have established few tariffs exceeding 30%. Some countries have low and uniform tariffs, e.g., Armenia's maximum tariff is 10% and the Kyrgyz Republic has a 10% uniform tariff); while in others the range goes up to 100% for a few items. In Russia, the average is about 13-14% with a range from 0 to 30% for most commodities, with some selected items considerably higher (see table 2 for details at a somewhat aggregated level).

On the export side, there has been significant dismantling of export controls in most countries; but controls of exports through state trading continues in some key exportables (cotton, oil and natural gas).

Trade with each other, is in principle free under the terms of the FTA. Imports are duty free, but it appears that export and foreign exchange controls in practice limit trade among some of the countries. Weaknesses in the payments systems continue to hamper trade, leading to continuing use of barter; but the previous state to state barter agreements have been by and large eliminated. Many countries have established a mixed VAT system: "origin" based for CIS trade and "destination" based with regard to the rest of the world. This means that with respect to CIS countries, imports are not taxed but domestic producers pay the VAT regardless of whether the good is exported or sold domestically. For the rest of the world, imports pay the VAT but exports are zero rated.

The Customs Union members negotiated a common external tariff based on the Russian tariff. But in the course of 1996, the three original members unilaterally introduced modifications to the external tariffs they applied to some commodities (Rietzler and Usmanova, 1996); also, as of the time of this writing, the Kyrgyz Republic had not taken any steps to introduce the common external tariff but instead continued to apply a uniform 10% tariff to imports from the rest of the world. All four countries are applying to the WTO on the basis of individual tariff schedules rather than as a custom union. Thus, at present, strictly speaking, there is no common external tariff for the Customs Union. But the agreements are still in place and the governments may pursue further steps towards their full implementation.

21.2 The Effects of Customs Union

There are two kinds of effects of customs unions, static and dynamic. The static effects relate to the impact of the establishment of the customs union on welfare. The analysis in this instance focuses on a comparison of the welfare of a country or groups of countries before and after the establishment of the customs union; thus the analysis is one of comparative statics.

The dynamic effects focus on the impact the customs union on the rate of output growth of a country or countries in the medium term. Many analysts have noted (Winters 1996) that supporters of customs unions and other regional preferential arrangements frequently find that the static welfare effects are typically small and possibly negative. They then focus on the potential dynamic benefits, which however, are difficult to define and even more difficult to measure.

In the case of the CIS countries, there is already a FTA among all members as well as a Customs Union (CU) among some of them however modified by specific exceptions for variation from a common external tariff. Hence the analysis of both dynamic and static effects has to compare the advantages and disadvantages of joining this specific customs union not just any one, and assumes that in principle the alternative to joining, is continuation of the FTA among the CIS; but the implications of a different alternative, under which countries that do not join the CU are excluded from the FTA area, also briefly examined.

Static Welfare Effects

The principal impact of joining the customs union would be to replace the external tariff of each of the countries with the common external tariff of the customs union. In general, under these

circumstances the benefits of joining the CU would depend to a considerable extent on the height and structure of each of the countries external tariff compared to that of the Customs Union external tariff. While in practice a Customs Union external tariff may not be in place at present, for purposes of analysis, the Russian tariff is a good proxy of the Customs Union external tariff that had been negotiated and will be used for the discussion in this unit. If a country such as Armenia or the Kyrgyz Republic with lower external tariffs were to substitute the Russian tariff for its own tariff structure, it would increase its unweighted average tariff to 13-14 percent (see table 2). More importantly, assuming that following accession of new members, the common external tariff is not changed, the Russian tariff exhibits considerably more dispersion compared with the tariff for some of the countries (typically between 0 and 30 percent),³ meaning that for selected highly protected products in Russia, the tariff would increase significantly. For other countries, adopting the common external tariff would mean actually reducing their average tariff.

Starting with Jacob Viner (1950), international trade economists typically analyze preferential trade arrangements, whether members of a FTA or a CU, in terms of trade creation and trade diversion. Trade creation in a product occurs, when additional imports come from partner countries which displace sales of inefficient domestic producers and these imports are at least as cheap as imports from non-partner countries. Trade creation results in improved welfare for the importing country for much the same reasons as increased trade improves a country's welfare. On the other hand, trade diversion occurs when suppliers in the rest of the world (who continue to face tariffs) are more efficient than partner suppliers, but additional partner country imports displace the more efficient suppliers. Trade diversion is typically (but not necessarily) welfare reducing since the home country must pay more to import the product from the less efficient partner country suppliers.

Although the general theory of regional trading arrangements is quite ambiguous in its conclusions, we believe some definitive conclusions are possible with respect to the specific customs union under consideration, at least for some of the CIS countries. Since the partner countries in the potential customs union already have tariff free access to the other CIS markets under the Free Trade Agreement, prices in these countries' markets cannot fall as a result of the customs union, i.e., there will be little welfare gain from trade creation. Whatever trade creation would occur, would come from third country suppliers in those products where the current external tariff in the country is higher than that of the Customs Union external tariff. Since welfare costs from a tariff increase with the square of the tariff rate, net welfare effects are little impacted by reductions in tariffs by a few percentage points say, from ten to seven percent. Rather what is crucial to the welfare effects are the changes that involve significant tariff increases.

Countries with Lower Tariffs Than in the Customs Union

Prospective partner country suppliers will have the potential, under the higher tariffs of the customs union, to raise prices to consumers in other CIS countries by the amount of the tariff preference over rest of world imports. In the model we present in the appendix, we assume that they will do so. A principal reason we believe they will do so is our judgment that advocates of the customs union propose it as a means of expanding protection for inefficient domestic industries throughout the CIS. That is, the customs union is an import substitution strategy for inefficient industries, where the structure of the tariff is high in those industries that exist in the customs union, especially in Russia. In the appendix, we elaborate some additional reasons why we believe they will do so. Thus, a key assumption of our model is that prospective members of the customs union face upward sloping supply curves from partner country suppliers who will raise prices by the extent of the tariff.

Moreover, since these countries have tariff free access to markets of the members of the customs union and to Russia in particular, the exporters from a CIS country joining the CU will not obtain improved access to the Russian market, which is by far the dominant market in the customs union. Thus, for countries like the Kyrgyz Republic and Armenia with already liberal external tariffs or others like Georgia and Moldova which are also pursuing generally liberal trade policies and assuming the common external tariff is not changed following their accession, the usual tradeoffs that must be considered in the evaluation of a preferential trade arrangement (trade diversion versus improved access and trade creation) do not apply. Thus, the CU would virtually result in pure trade diversion.

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High tariff protection for such small economies is generally very inefficient and costly. Protection prevents the transmission of world prices to the economy and thereby prevents market signals from inducing resource reallocation to areas of comparative advantage in the economy. Experience has shown that over time, countries with high protection generally grow more slowly than those with low protection. Moreover, we show in the appendix that increasing an external tariff within the framework of a customs union with Russia and the other partners for a small CIS country, is much more costly than simply raising tariffs, without preferential treatment to the customs union members. In fact, in this example the customs union will be several times more inefficient and costly to the small country than simply raising tariffs to the rest of the world in a non-preferential manner.

Joining the customs union with a common external tariff such as that previously negotiated is so costly for several reasons: First, partner country suppliers can raise prices under the tariff protection they receive from preferential protection. Then for the quantities previously purchased from partner country suppliers, consumers in member countries with a previously lower external tariff will likely pay higher prices (excluding the tariffs) to partner country producers than they were paying prior to participation in the customs union, i.e., there is an adverse terms-of-trade effect on the initial quantities purchased from partner country suppliers. Second, since rest of world imports are subject to a higher tariff, there will be a diversion of sales away from rest of the world suppliers toward partner country suppliers.

This trade diversion entails two costs: (a) since the importing country does not collect any tariff revenue on imports from partner countries, there is a loss of the tariff revenue on these trade diverting imports; and (b) excluding the tariff, consumers will have to pay higher prices to partner country suppliers than they were paying to rest of world suppliers prior to participation in the customs union.

In their comprehensive theoretical treatment, Bhagwati and Panagariya (1996) describe a model in which partner country suppliers have perfectly elastic supply curves. This situation might be expected to apply if a country is forming a preferential trade area with a very large market, such as the European Union or NAFTA, because competition among many suppliers in the large market results in flat supply curves to the prospective new member country. In this case, there is a much larger likelihood of the preferential trade area being welfare increasing since the new member will not suffer a terms-of-trade loss on its purchases from the suppliers from the large market.

Countries with Higher Average Tariffs Than in the Customs Union

For countries with a higher average external tariff than that of the CU, the results are more ambiguous. On the one hand, in converting to the common external tariff, since the average tariff is lower than in the home country, there will be a number of products where the external tariff will be reduced.

Then there will be a welfare gain on those products where the external tariff is lowered. Because there will be some trade creation from additional imports from rest of the world Suppliers (partner country suppliers already have tariff free access due to the FTA so no Additional trade creation is possible from CIS partners). On the other hand, the negotiated

Tariff of the CU is not uniform; rather it favors production of those products already produced in the CU. Even in countries with higher average tariffs than in the CU, their tariffs typically favor their home production. Substitution of the CU tariff will shift the tariff structure so that it favors the producers of the CU, i.e., tariffs will be high on the products produced in the CU and low on the products produced in the home country, and it is likely that even in countries with higher average tariffs, they will have to raise their external tariffs on many products produced in their partner countries. This will allow partner country producers to charge higher prices under the protection of higher tariffs on third country producers, a significant welfare loss that is likely to dominate. A choice available to a country in these circumstances is to lower its tariff on third countries, without joining the CU. This option offers the gains from the trade creation on the products where the external tariff is being lowered, without the losses of the trade diversion from having to pay higher prices to inefficient partner country suppliers.

Russia, Kazakstan and Belarus. Finally, briefly consider the welfare impact on Russia, Kazakstan and Belarus, the members of the Customs Union which had adopted the common external tariff.

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Since the tariff structure favors production in these countries, then as more countries join the Customs Union, in the short run producers in these countries will gain additional profits and exports from the additional protection they receive against rest of world imports in the new partner country markets. Since the costs of protecting home producers will be borne in part by consumers in partner countries, the strategy has an initial appeal in the countries whose producers receive the high protection. But, because the benefits of a liberal trade regime to consumers are dispersed widely (presenting a free-rider problem where it is not typically worth it to individual consumers to lobby their governments for liberal trade actions) while the benefits of trade protection are concentrated in the industry receiving protection (which provides an incentive for the industry to lobby its government for protection), the kinds of preferential trade areas that will typically arise are those which are trade diverting (see Grossman and Helpman (1995)). Thus, in order for the existing members of the Customs Union to convince additional members to join, or at least to remain members over time, it is likely that the tariff structure will have to change in a way that offers protection to producers of other CIS countries, i.e., the existing members will have to offer protection in their markets to high priced products produced in non-member CIS states.

**Caution**

A country will not participate in a Customs Union if the Customs Union offers neither enhanced protection for its producers nor widespread benefits for its consumers.

If the external tariff is adjusted to accommodate the inefficient producers of new members, although some of the producers of the existing member countries may still gain from a wider Customs Union, the benefits to the countries as a whole are going to be reduced and countries could become net losers. That is, the short-run gains to existing producers mask potential longer term costs of not opening up trade to the rest of the world. It is likely that the entire CIS is not collectively large enough to approximate world market efficiency in most products. Thus, a strategy of widening the protection of domestic producers through a Customs Union of a set of the CIS countries, is really an import substitution policy through protection on a slightly larger scale, a strategy that has retarded growth in many countries .

Revenue Effects

Due to the potential impact on the fiscal deficit, macro stabilization and inflation, governments must also be cognizant of the impact of preferential trade arrangements on their revenues. In this section, we examine various aspects of this question for the CIS countries.

Tariffs

Joining the customs union is likely to have negative revenue implications on Individual new members. As there will continue to be no tariffs on trade within the customs union, to the extent that rest of world imports are displaced, tariff revenue will be lost to the customs union. In addition, despite the fact that the customs union agreements stipulate that the tariff revenue will go to the country to whom the imports are destined, one can not overlook the potential administrative problems associated with obtaining tariff revenues from the customs offices of other member countries, especially given the weakness in tax reserve collections in all these countries. And there are other reasons to believe that revenues of imports from the rest of the world will be diminished. There are central administrative institutions of a customs union that will have to receive funding. Funding for the administration of the customs union or any centralized programs is typically done out of tariff revenue collected by the customs union.

Excise Taxes: Accession to the customs union will increase pressure on members to harmonize excise tax rates. These rates are presently rather diverse both within the CU countries and potential members. The tax revenue implications of unified rates would have to be assessed in each case individually.

Value Added Taxes. The dominant practice among the CIS countries is to apply the value added tax (VAT) on a mixed basis. That is, for trade outside of the CIS, imports are taxed but exports are not, the

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"destination" system. For trade within the CIS, exports are taxed but imports are not, the "origin system." Participation in the customs union will require a value added tax that is harmonized with the system applicable in the customs union, i.e., the current mixed system. Berglas (1981) has shown that under certain assumptions (including flexible exchange rates) the origin or destination systems are equivalent and do not tax the trade regime if designed properly. Since the VAT rates of most CIS are approximately equalized, the allocation of real resources and trade flows among the other CIS countries is not seriously affected, but it is important to harmonize these taxes within a mixed system to avoid arbitrage and distortions.

What is more likely to be a problem with a mixed VAT system is the allocation of tax revenues. Even if the VAT rates are harmonized, countries with a trade deficit within the customs union and a trade surplus outside the customs union will experience an adverse transfer of VAT tax revenues toward the partners in the customs union with the opposite trade pattern. To illustrate, suppose the trade of Azerbaijan is balanced overall, but it imports exclusively from, say Russia, and exports exclusively outside the customs union, and that Russia has the opposite trade balance.

Since the destination system applies on trade outside of the CIS, and the origin principle applies on trade within the CIS, Azerbaijan would collect no VAT tax revenues (neither on its imports nor its exports), and Russia would collect all the VAT revenue on trade (Russia collects VAT on both its exports to Azerbaijan and its imports from the rest of the world). Thus, even though the mixed VAT system would not change relative prices and is therefore non-distortionary because there is no impact on the allocation of resources, in this example it would represent a transfer of VAT revenues from Azerbaijan to Russia.

Dynamic Effects

In general, there are two basic ways in which the rate of output growth can increase: First through a faster growth of factor inputs and second through increases in the growth of total factor productivity. Assuming no changes in population growth and in labor force participation rates, the growth of factor inputs essentially boils down to the rate of investment in human and physical capital. Total factor productivity on the other hand is thought to be dependent in the medium and long term on improvements in technology and knowhow.

More generally, access to a diverse mix of products including modern technology appears to be very important for the growth process. New and diverse technologies are constantly appearing and these new technologies allow an increase in the productivity of both capital and labor.

The question that needs to be addressed then is how a customs union among the CIS countries will affect output growth through its impact on access to technology that enhances productivity and through its effects on the rate of investment in human and physical capital.

There is some evidence that developing countries total factor productivity is positively related to the access of technology and knowledge embodied in imports from developed countries. In the case of CIS and other transition economies, access to diverse and modern intermediate products from world markets appears especially crucial as these economies attempt to transform themselves from an industrial structure that was inherited from the era of the former Soviet Union, i.e., that was outdated and frequently not based on comparative advantage. It is very important that these countries move away from reliance on technologies that are available only in the countries that were part of the former Soviet Union, since the most dynamic and modern technologies are found elsewhere. Yet, tariff protection for products that are produced in the customs union will discourage the introduction of new products and technologies from outside the customs union and free trade area, technologies that would boost the growth and development of the CIS members. Thus, on the question of enhancing growth through improvements in total factor productivity the effect of the customs union (and for that matter of the existing free trade area) on all its members is likely to be very negative.

There are several ways through which a customs union could affect the rate of investment in member countries: (a) through a change in tariffs and hence in the cost of imported capital equipment that changes the rate of return on investment and the rate of capital accumulation; (b) through affecting

the financial system and the overall stability and effectiveness of economic policies that improve the climate of investment; (c) by providing an incentive to foreign direct investment to locate and produce in the countries of the Union as opposed to exporting goods and services.

Unfortunately, it is difficult to make a credible case that these effects would be positive in the case of a customs union in the CIS. First, it is likely that the cost of imported capital would actually increase especially for some of the smaller members, as they could obtain capital goods more cheaply from third countries. Second, while there are plans for greater integration of the financial systems and economic policies of members which may have a positive impact on the climate of investment in the future, there is very little chance that any of this will happen in the immediate future. In fact, premature integration without adequate multilateral institutions may resurrect some of the problems of the recent past which contributed to instability. For example, the common ruble area of 1992-1993, without monetary coordination of the multiple central banks was a root cause of inflation and the problems of trade. The key challenge in all countries is how to improve the national environment for private sector development through the establishment of policies and institutions (for example better enforcement of contractual obligations) that improve the investment climate--policies that may best be pursued unilaterally in the near term. Third, it is possible that as result of the establishment of the customs union, there may be a positive effect on foreign investment that comes in to "jump" the common external tariff. How big this effect will be is hard to predict simply because there are so many other factors that constrain the inflow of foreign direct investment which countries need to address first and which are likely to have a far greater impact on foreign direct investment than the stimulus provided by the establishment of a customs union. More importantly, foreign direct investment which is in response to tariff jumping can cause the welfare and growth rate of the capital importing country to decline. The reason is that foreign investment responds to the private return to capital, and the foreigners will repatriate profits based on their private returns; but when the sector is highly protected, the social return to investment in the sector is much lower than the private return.

In sum, while the dynamic effects of establishing or joining a customs union and of the existing Free Trade Area in the CIS are difficult to demonstrate, they are likely to be negative, especially because of the adverse effect of the preferential arrangements on technology and productivity improvements.

The Threat of the Loss of the Free Trade Agreement: In the event that a CIS country fails to join the customs union, there is some possibility that the members of the customs union would apply the common external tariff to the exports of that CIS country; that is, they may revoke their Free Trade Agreements. Although we must be cautious since the effects will vary from country to country and we do not have precise estimates, the net welfare impact of participation in the Free Trade Agreement is likely to be negative for most CIS countries; consequently, the threat of exposure to the common external tariff of the customs union is not an event that should be feared for most CIS countries.

The reasons are as follows: If Russia, Kazakhstan and Belarus, withdraw from the Free Trade Agreements and apply the negotiated common external tariff of the customs union to exports from the other CIS countries, there would be economic impacts on both the imports and the exports of these CIS countries. Regarding imports, as explained in detail in the appendix, applying tariffs on imports from former partner countries in the CIS results in displacement of partner country imports by rest of world supply. This results in a gain in tariff revenue on these sales. Moreover, since partner country suppliers are likely, in many products, to lower their prices to the extent of reduction of the tariff on rest of world products (since marginally inefficient partner country suppliers will be forced out of the market as competition from rest of world producers becomes more intense), CIS consumers will be able to pay less to partner suppliers by the amount of the tariff, and this is a gain to their economic welfare. Moreover, permitting efficient imports from the rest of the world as opposed to preserving inefficient imports from partners in the former Soviet Union, is very productive in terms of breaking away from the outdated and inefficient technology of the Soviet past.

Weighed against this potential gain in welfare from application of tariffs on imports in the CIS is the loss in welfare from lost preferential access to the markets of countries in the Customs Union. Exporters from the CIS countries outside the Customs Union would no longer be able to obtain higher prices than producers from the rest of the world on exports to the countries in the Customs Union, since like

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exporters from the rest of the world, their exports would also be subject to the tariff. But since the negotiated tariff of the Customs Union is based on the Russian external tariff, it tends to be high in those items important to Russian producers. That is, products important to the exports of the CIS tend to be inputs into production in Russia and therefore have relatively low tariffs in the Customs Union.

Although we must again be cautious since this effect will vary from country to country and we do not have precise estimates, this implies that most CIS countries outside Russia, Belarus and Kazakhstan likely derive little terms of trade gain on their exports to the Customs Union, from the fact that they are in the Free Trade Agreement. That is, most CIS countries perhaps with the exception of Ukraine, would likely be able to sell the vast majority on their products in the same markets with small losses losses that are considerably smaller than the losses suffered by their consumers from having to pay higher prices to the exporters from the Customs Union.

Moreover, the dynamic effects of the free trade area could also be negative, for all its members. It would be desirable for CIS exporters to find alternate marketing channels outside of the CIS Customs Union countries. This would reduce dependence on a limited number of countries for markets and transportation facilities. Absent Free Trade Agreements, it will become even more imperative for exporters from the CIS to find alternate markets and marketing channels. Moreover, while finding new markets outside of the Customs Union countries may require a difficult adjustment period, the experience of the Baltic countries between 1992 and 1994 demonstrates that rapid adjustment is possible.

Converting the Free Trade Area to a Customs Union

Now consider the impact of imposing the common external tariff at the rate t' , starting from the Free Trade Agreement in place. The supply curve including the tariff of the rest of the world and the new equilibrium price increases to $PR(1+t')$, where the quantity demanded for imports declines to $M1$. Partner country suppliers also receive this higher price and then the quantity they supply increases to $Q1$. The quantity supplied from the rest of the world declines to $M1 - Q1$.

The welfare costs to country A are strongly negative, and may be decomposed into three parts. First, there are consumer deadweight losses because country A consumers are induced to reduce their consumption of total imports from $M0$ to $M1$ in favor of alternate goods available that were previously less preferred (this could include domestic substitutes in this product category or goods in other product categories). These were equal to the triangle ADL in the initial equilibrium, but they increase to BCL . The difference is the shaded area $ABCD$, representing the increase in consumers' deadweight loss due to the common external tariff. Second, there is an increase in the triangle of producers' deadweight losses, from NGH to NFE .

The difference is the shaded area $FEHG$, representing the increase in producers' deadweight loss due to the imposition of the common external tariff. Partner country producers are able to obtain higher prices in country A, which attracts less efficient higher cost supply. Absent a tariff, supplies from the rest of the world would have been available at the price PR . Third, part of the higher prices received by partner country suppliers results in an increase in their profits or producers' surplus. The increase in partner country profits or producers surplus is $HIFE$; this is a transfer from country A consumers to producers in partner countries. Overall the loss of moving to the customs union, given that a Free Trade Agreement is already in place, is the sum of the three shaded areas in Figure 1: $ABCD + FEHG + HIFE$.

The losses to the economy of increasing tariffs through the common external tariff of the customs union, given a Free Trade Agreement, are considerably greater than non-preferential tariff increases from an average rate of t to t' . That is, if tariffs were applied in a non-preferential manner and were increased from t to t' , the costs to the economy of the increase in the tariff would be the shaded area $ABCD$. The customs union imposes the additional costs equal to the areas $FEHG$ and $HIFE$, representing inefficiency losses and transfers to partner country suppliers, respectively.

Combined Loss of the Customs Union and the Free Trade Agreement

The combined loss of the Free Trade Agreement and the customs union is larger than the loss of the customs union or the Free Trade Agreement alone and equals the triangle BCL plus the rectangle

MFEJ. A non-preferential tariff of rate t' would produce a welfare loss equal to the triangle BCL. The difference is equal to the area MFEJ which derives from the fact that consumers in country A pay higher prices to partner country producers than they would have to pay to rest of the world producers. The area MFEJ would be captured for country A as tariff revenue and not lost to the economy if the tariff were not preferential. Instead with a the combination Free Trade Agreement and customs union the area MFEJ is added to the losses of country A, thereby greatly magnifying the losses. The area MFEJ represents a combination of transfers to partner country suppliers (the area MNEJ) plus inefficiency (deadweight) losses of using marginally inefficient partner country suppliers (the triangle NFE). It is necessary to reduce this estimate of the losses by the increase in the terms of trade earned by exporters from country A on their sales within the PTA. Since the tariff primarily benefits existing Customs Union members, these gains may be expected to be small.

21.3 Summary

- For small CIS countries, with relatively open trade regimes, joining the Customs Union that has been established by several CIS members could be economically quite costly. These costs could be mitigated, but probably not fully offset, if as a consequence of the entry of new members, both the average level and the dispersion of the previously negotiated external tariff of the customs union were reduced. For these countries, maintaining an open trade regime without preferences is the best policy that maximizes welfare and growth prospects. It will also facilitate entry into the WTO, a key objective for these countries' trade policies.
- Even for the existing customs union members, and for others with more restrictive trade regimes than those of existing members, preferential arrangements that provide strong incentives to orient trade towards partners in the former Soviet Union contain significant long term risks. The main risks are that the preferences (through customs union or free trade arrangements) lock in traditional technologies and production structures, reduce innovation and competition, and hence result in inefficient industries that absorb scarce resources that could be better used elsewhere.
- The discussion has focused on preferences and a specific customs union arrangement among CIS countries. But it has relevance for preferential arrangements, including customs unions, that might be considered in the context of other country groupings in the CIS as well as in transition economies in Eastern Europe, e.g. former Yugoslavia. In this case as well, the main problems would arise from lack of competition and the absence of dynamic technology. The discussion is not intended to apply to countries in transition joining the EU, where different circumstances prevail which improve the prospects for economic benefits.
- The key difference between preferential arrangements among CIS members and other preferential arrangements (NAFTA, the EU) is that in the latter the markets are large enough to promote competition and encourage the flow of new technology which increase the probability that distortions introduced through preferences are more than offset by new trade creation and the dynamic effects of investment embodying new technology.
- We had advocated preferential arrangements for CIS members as useful transitional devices to mitigate the severe disruption of trade among the new independent states in the aftermath of the breakup of the Soviet Union (Michalopoulos and Tarr, 1992; 1994). Although based on duration of unemployment measures, two years appears to be a sufficient period of adjustment in market economies,¹¹ there is no standard period for adjustment or transition; and the breakup of the Soviet Union clearly created unprecedented disruption which may have warranted a greater adjustment period. The new independent states have had five years to adjust to international competition. Given the inherited burden of inefficiencies that plagues a sizable portion of CIS industry, there are serious costs of continuing preferential arrangements indefinitely, and integrating more closely through a customs union at this time appears ill advised.

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Self-Assessment

1. Choose the correct options:

- (i) Which one of the following sets of countries contains only members of the European Union (EU)?
 - (a) France, Spain, Switzerland, UK
 - (b) Germany, Italy, Portugal, Sweden
 - (c) Denmark, Greece, the Netherlands, Poland
 - (d) Belgium, Greece, Italy, Portugal
- (ii) If good X of country C faces a 10% tariff in country A and a 20% tariff in country B, but if A and B have free trade between each other, then A and B are part of which one (and only one) of the following types of groupings?
 - (a) Free trade area
 - (b) Customs union
 - (c) Common market
 - (d) Economic union
- (iii) If country A forms a customs union with country B, then
 - (a) country B continues to get tariff revenue from country A's exports sent to B.
 - (b) all new trade between A and B because of the union is known as "trade creation".
 - (c) the welfare of A and B must necessarily be enhanced, especially if A and B begin to buy many items from each other that they used to buy from the "outside world".
 - (d) A and B may especially benefit from the union if substantial economies of scale exist in some of the A and B industries.
- 4. If two countries remove all tariffs on each other's products and establish a common set of tariffs against the rest of the world, but take no further steps toward economic integration, these two countries have formed _____.
 - (a) a free trade area
 - (b) a customs union
 - (c) a common market
 - (d) an economic union
- (v) Which of the following is considered to be a positive dynamic effect of integration?
 - (a) economic-of-scale effects
 - (b) reduced customs costs
 - (c) trade diversion
 - (d) the increased monopoly power of firms

21.4 Summary

- A tariff will induce inefficiency losses, but preferential trading areas with partners with upsloping supply curves greatly magnify the losses. This explains why preferential trade arrangements with small partner countries or with countries that may be expected to increase supply at higher protected prices can be expected to be very inefficient, more inefficient than non-preferential tariff protection at the same rate.

21.5 Key-Words

- 1. Trade Creation : When trade b/w custom union partners increases, this implies a shift in the Union to more efficient, competitive producers
- 2. Trade Diversion : When imports from the less expensive world market are replaced by imports from a higher cost/less efficient partner country within the customs union

* The government obtains tariff revenue on the imports from the rest of the world, equal to the rectangle GHAD, but imports from partner countries enter without paying tariffs.

3. Trade expansion : When lower market prices in one partner country stimulates total domestic demand which is satisfied by increased foreign trade with another partner country

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21.6 Review Questions

1. What is meant by trade regimes?
2. Write a short note on the effects of Custom Union. Discuss.
3. Discuss the dynamic effects of custom union.

Answers: Self-Assessment

1. (i) (d) (ii) (a) (iii) (d) (iv) (b) (v) (a)

21.7 Further Readings



1. Berglas, Eitan (1981), "Harmonization of Commodity Taxes: Destination, Origin and Restricted Origin Principles," *Journal of Public Economics*, 16, pp. 377-387.
2. Bhagwati, Jagdish and Anne Krueger (1973), Exchange Control, Liberalization and Economic Development, *American Economic Review*, 63 (2), May, 419-427.
3. Bhagwati, Jagdish and Arvind Panagariya (1996), "Preferential Trading Areas and Multilateralism: Strangers, Friends or Foes," in J. Bhagwati and A. Panagariya (eds.), *The Economics of Preferential Trade Agreements*, Washington D.C.: AEI Press.
4. Grossman, Gene and Elhanan Helpman (1995), The Politics of Free-Trade Agreements, *The American Economic Review*, 85 (4), 667-690.

Unit 22 : SAARC/SAPTA, ASEAN

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Objectives

After reading this Unit students will be able to:

- Know SAARC/SAPTA.
- Explain ASEAN—INDIA.

Introduction

There is a greater awareness now among the people of the region comprising SAARC that with joint efforts, today's knowledge economy, the enhanced purchasing power of the South Asian market with a quarter of humanity living in it, its yet untapped hydrocarbon reserves and the rich diversity of other resources, could yield huge dividends for its people and lend the region considerable political weight and economic clout in a gradually emerging multipolar world. Can one transform that awareness into the will to move ahead in that direction, fast enough to rub shoulders with other regional entities with the necessary degree of internal harmony and strength ? That would mean getting over problems that have beset SAARC so far.

First, there is the inadequacy of intra-SAARC trade. Without augmenting trade within the region and region's exports to the rest of the world, the South Asian dream of becoming a partner in Asia's march to the top of the economic ladder in this century is inconceivable. In Europe more than half the exports are intra-regional. In South Asia, they are just about 5%. Even if one adds the very vague figures of informal intra-SAARC trade to it, the figure would hardly reach 7%. The answer obviously lies in breaking existing barriers to trade within the region.

22.1 SAARC/SAPTA

SAARC commenced the process of liberalization eight years ago when in 1995 the Organization established the South Asian Preferential Trade Arrangement (SAPTA). During the last eight years four rounds of negotiations have been held among the member countries, exchanging lists of items for tariff concessions. So far more than 5000 items have been liberalized. Commendable though this endeavour may be, its pace has been far from satisfactory. First, the lists exchanged have rarely included items most traded bilaterally among the SAARC countries. Secondly, there have not been across the board reductions of tariffs, the process having been too selective in character. Obviously the liberalization process needs considerable lubrication for its wheels to move faster and more smoothly.

Significant complementarities exist among SAARC countries apart from just those of history and culture. There needs to be more active communication between the respective trade, business, finance and industry of the SAARC states and particularly of India and Pakistan, the two largest among

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them, to ensure intra-SAARC trade expansion. In this connection one must hail the recent announcements by these two States encouraging people-to-people contacts followed by an exchange of business delegations. As the political climate in the region improves further and the liberalization process gathers momentum, the business community would move forward fast, taking advantage of the new opportunities and boosting up regional trade. With SAPTA coming into force a year from now, this process will surely receive a boost and it should become fully operational by 2016. That would need persistent effort so that we do not get stuck halfway through. Opening up more land and rail routes will provide further impetus.



The SAFTA Agreement was signed on 6 January 2004 during Twelfth SAARC summit held in Islamabad Pakistan.

Simultaneously, exporters in the countries of the region have to be helped financially to take care of resource constraints. As financing imports through export earnings alone has not been a possibility for SAARC countries, and generation of internal resources to fill the gap has been equally difficult, dependence on external assistance tied to the source has been a marked practice. What is required is a discreet use of clearing and payment arrangements and promotion of mutually advantageous counter trade. In this context the idea of having a common South Asian Currency would be of enormous value. We need to move towards much closer cooperation for this to happen, to guard against misuse, money laundering and other considerations. As the EU experience has shown, a common currency demands strict fiscal controls and extensive monetary cooperation, which the region is still far from having.

Quality-Upsurge and Intra-SAARC Trade

South Asia has to contend with another factor that is emerging. Due to the impact of globalization, consumer taste has developed and is growing further in favour of goods from outside the region. As our experience shows, the only way to meet this challenge is to improve the quality of our products for our consumers and make them competitive against imported goods rather than clamp down on imports and fight the rising tide of globalization. If this calls for structural changes, these must be undertaken and in concert with countries of the region. Non-availability of exportable surpluses of preferred specifications, sub-standard quality of goods and services, and lack of standardization are major constraints to regional trade and its movement towards forging a South Asian Community. Low production efficiencies and high export competitiveness of the region have been quite an obstacle to increased intra-SAARC trade. To achieve the latter, South Asian countries should pay more attention to reducing trade imbalances amongst themselves. As the largest member of SAARC, India has a special responsibility for this. It should strive harder to reduce its surpluses in trade with other regional states by assisting them to produce more for the huge Indian market, reduce its protective mechanism vis-a-vis these countries and encourage more free trade arrangements with them as it has done with Nepal, Bhutan and recently Sri Lanka. Similarly, these countries should drop their inhibitions for developing closer and more open trade ties with India since in a climate of trust India's size and consumption capabilities will prove to be a boon to them rather than a bane. There is also the need to achieve greater standardization, and harmonization of documents such as letters of credit and complex customs procedures as the European Union has done, avoid delivery delays and enforce greater quality control. These steps are of crucial importance for a smooth flow of trade within the region.

Linkages and Transportation

To move towards a South Asian Community, the network of transport and transit facilities in the region has also to be considerably improved. Trade cannot move without its arteries being fluent. Lack of infrastructure is the enemy of development. It also comes in the way of fruitful regional cooperation. The absence of proper rail and road links among SAARC countries increases the cost of

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such cooperation, disturbs delivery schedules and inhibits mutually advantageous business enterprises to develop. The logistics of freight movement are fundamental for trade. SAARC's Technical Committee on Transport and Communication has deliberated on these issues, but on the ground progress has been slow and inconsistent with the needs of the moment. Moreover, these deliberations have remained largely in the official domain and the great potential of the private sector has not been provided the right impetus.

Governments can play a very useful role in improving transport service facilities like railways, roads, shipping and ports. The possibilities of undertaking regional projects in this vital sector through private sector involvement are immense. There is also scope for cooperation in specific areas like inland waterways and coastal shipping. India, the only member of SAARC sharing land/sea borders with *all* the South Asian countries, has to take initiatives in upgrading these links but other regional partners must also overcome their inhibitions and come forward, seeking inspiration from the successful examples of Europe and NAFTA in fostering regional cooperation in this field among countries irrespective of their size.

The region should work on developing SAARC transport infrastructure and develop trunk routes of trade and development. It is high time that SAARC moved forward to establish an Infrastructure Fund, took up a couple of major infrastructure projects and implemented them so well that these would inspire confidence in SAARC's capability to deliver. The fund should focus on the improvement of the intra-SAARC border transport links that merit the most immediate attention. While all the member states have to do their part to create such a fund, India as the largest of them and having borders with all of them has a very major responsibility in the matter and must give the lead. In this respect, attention should be given to the Indian proposal at the meeting of the Council of Ministers in July 2004 for setting up a SAARC Infrastructure Fund for financing large collaborative projects.

New Dimensions

South Asian trade must also move more vigorously into the manufacturing and services sectors. From primary commodities it should fan out more and more into manufacturing and services trade. In the last two decades industrial joint ventures and transfer of technology have played a critical role in the growth of trade in regions such as ASEAN, the EU and NAFTA. International trade in services has also become a significant source of foreign exchange earnings. Joint ventures and technology transfers in manufacturing and services sectors constitute a major form of cooperation between enterprises of both developed and developing nations. SAARC states would stand much to gain by promoting such cooperation among them. While the signing of agreements on investment promotion and protection, avoidance of double taxation, and establishment of an Arbitration Council are important, SAARC needs to move away from mere trade in goods, as contemplated under SAPTA, to a new dimension of cooperation, embracing trade in services, and enhanced investment flows and cooperation in fiscal and monetary matters.

Sectors in which Joint Ventures and technology transfers are feasible are huge. These range from local market oriented ventures such as frozen food and fruit products to agro-based industries, textile and leather products, rubber and plastic products, mineral based industries, metal and metal products, chemicals, transport equipment, nonelectric machinery, electrical equipment, goods and machinery, and energy based industries.

Towards an Economic Union

The South Asian region offers a high potential for cooperation in such services as tourism and the hotel industry, consultancy services, services for small industry development, computer software, joint ventures for research and development, development finance, construction industry and banking. Taking advantage of the current foreign exchange position of the region as a whole, it would be useful to create a SAARC Reserve Fund as a source of financing debit balances. SAARC states should also undertake focal programs in the form of SAARC Technology Missions (SAARCTEMs) to improve agriculture and dairy development, using biotechnology. Similarly Joint SAARC Resource Surveys could be undertaken with a selective use of space technology and informatics to support sustainable

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development. At the same time the South Asian countries should encourage joint eco-friendly use of the region's water and power resources by designing sub-regional projects for manufacturing, installing and maintaining energy systems including solar energy. These steps will take South Asia closer to the goal of becoming a Community and hopefully, somewhat later, help it evolve into South Asian Union. Towards this end, SAARC should create a high-powered Economic Council comprising Finance/Planning Ministers of each Member State to promote initiatives for regional economic, commercial, financial and monetary integration so vital to the emergence of an Economic Union.

Poverty Alleviation

We cannot face the world with full pride and dignity unless we eliminate the hydra of poverty that stalks our region. Each of our countries has the responsibility to concentrate on this theme individually and in concert with regional partners. It is obvious that while there is no substitute for each of our nation's individual efforts, SAARC should take the lead in promoting collaborative efforts to achieve poverty alleviation. It should be possible for the member States of SAARC to spare a proportion of their national allocations to meet the challenge of poverty for SAARC's collaborative efforts to that end. A common pool in the form of a SAARC Poverty Alleviation Fund should form the basis for such an effort. In this context one must welcome India's offer of US \$ 100 million to set the ball rolling on this. Given the dimensions of the problem this is not a big amount but with other Member Countries chipping in, it should be possible for the SAARC Poverty Alleviation Fund to finance specific projects for implementation. Member States should also set up National Committees to consult with each other to monitor progress on such collaborative projects as well as devise programmes to implement the goals of the SAARC Social Charter. The region has a grave need to meet challenges jointly especially in combating diseases such as tuberculosis and HIV/AIDS. Fresh initiatives in this direction are necessary. The academics analyzing the successes and failures of SAARC have long felt that it is important to create a regional forum for people's representatives from each member country to interact with their counterparts from others to discuss issues facing them regionally and to help develop regional cooperation. Establishment of a South Asian Parliamentary Forum would help achieve that objective.

An Oracle

More than half a century ago, at the first Asian Conference Pandit Jawahar Lal Nehru expressed the hope that the event would stand out in history as a landmark and said :

Strong winds are blowing all over Asia. Let us not be afraid of them but rather welcome them for only with their help can we build the Asia of our dreams. Let us have faith in these great new forces and the dream which is taking shape. Let us above all, have faith in the human spirit which Asia has symbolized for those long ages past.

More than anyone else, South Asia is a party to that dream and that spirit. In this twenty first century the continent of Asia has set its sights quite high and we stand closer to the fulfillment of that dream. And yet we are not so close. Much of that hope now rests on the next SAARC Summit in Dhaka, the thirteenth since its establishment. It was in Dhaka that SAARC's odyssey began when Bangladesh put us all together to think and work as a region. Let the Dhaka summit be the harbinger of a new dawn for the people of this historic region by taking several leaps forward.



Did u know? High on the heels of the Fifth EU-India Summit came the third ASEAN—INDIA Summit on November 11, 2004 at Vientiane, Laos.

It is a happy augury that India's regional relationships are developing a fresh thrust and a new momentum. In a world of shrinking distances, rising expectations and soaring new dreams, the human family has to learn to sink its differences and maximise cooperation all around to carve a new destiny. In that historic journey, entities like the EU, ASEAN and increasingly SAARC stand out as important milestones. Regional cooperation will be propelled as much by the historic force of globalisation as by a new dynamism in bilateral equations.

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For Asia to add this momentum would be necessary to bury the hatchet of earlier conflicts and rivalries and move from the security of weapons to the firmer security of regional and global cooperation, from the worn out concept of Mutually Assured Destruction to that of Mutually Assured Cooperation, from the battle for humanity's survival to that of growth for all. A brave new world beckons to us free of destitution, deprivation and discrimination if only we could heed its call and move towards it in one file, our steps in a harmonious blend.

22.2 ASEAN—INDIA

India's emphasis on the resurgence of Asia and cooperation with Asian nations in the post colonial era goes back to the days of the Asia Conference organized by Pandit Jawaharlal Nehru on the eve of India's independence, and the Bandung Conference later where the Indian leader offered *Panchsheel* as an alternative to the policy of deterrence that was shaping the cold war world. The countries of the South East Asian region and India have shared for thousand of years a priceless heritage of civilization and culture and of a very peaceful religious, social and economic interaction with each other. In this millennial relationship, all the societies extending from Myanmar to Indonesia along the Indian Ocean and from there to the Philippines in the Asia Pacific have had by dint of history and geography a close kinship and affinity with India. Today, like India again, they are pluralistic, multi ethnic societies. There also exists among them a multifaceted partnership through bilateral and multilateral links encompassing political, cultural, social, economic, scientific, technological, and security dimensions. These links constitute a solid foundation for taking ASEAN—INDIA partnership to greater heights and into new areas of growth and development.

Phnom Penh Summit

Since the First ASEAN—INDIA Summit held in Phnom Penh on November 2002 a number of agreements and understandings have already been reached between the two sides including the Framework Agreement on Comprehensive Economic Cooperation between ASEAN and India signed in Bali in October 2003 for realizing the full potential of ASEAN—INDIA Regional Trade and Investment Area (RTIA) and economic cooperation. At the Laos Summit in November last year the two sides committed themselves to promote a long term cooperative partnership, impart synergies to their complementarities and cooperate in a coordinated manner to accelerate and mutually reinforce sustainable growth and development, taking full advantage of their geographical contiguity. Both agreed to give high priority to development of regional infrastructure and road, rail, sea and air transportation links to increase physical connectivity that would facilitate greater movement of goods and people. In this connection they also agreed to facilitate travel and tourism between ASEAN and India by linking their tourist centres and to enhance synergies of tourist destinations. In addition, they agreed to promote cooperation in the fields of science and technology, and committed themselves to work through both conventional and innovative trade and economic arrangements to achieve freer movement of goods, services and investment.

The ASEAN Century

ASEAN and India agreed at the Laos summit to cooperate in human resource development, through capacity building, strengthening of institutions, training and entrepreneurship development focusing on small and medium enterprises. Apart from fostering cooperation to preserve their common cultural heritage, they agreed to promote people to people exchanges involving parliamentarians, the youth, artists, sport persons and representatives from business, industry, the media, and academic and *think-tank* institutions. The document on Partnership for Peace, Progress and Shared Prosperity signed on November 11, 2004 at the Third ASEAN—INDIA Summit also provides for strengthening cooperation at the United Nations and other multilateral fora, in particular WTO. It expresses support for early reforms of the United Nations and the Breton Woods institutions to make them more democratic and responsive to the priorities of the developing countries. The ASEAN—India Partnership document manifests a new urge on the part of ASEAN and India to jointly address the common challenges confronting the world, especially those relating to security such as the menace of international terrorism, other transnational crimes like trafficking in drugs, human trafficking, cyber

crimes, international economic crimes and environmental crimes, sea piracy and money laundering, through effective institutional linkages and programmes of cooperation.

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As partners ASEAN and INDIA have also agreed to collaborate on the global plane in areas of general and complete disarmament and the non-proliferation of weapons of mass destruction under strict and effective international control. India sees its growing interaction with ASEAN as 'critical to fulfilling the promise of the 21st century being an Asian century' to use the words of Prime Minister Manmohan Singh. While launching the INDIA—ASEAN car rally at Guwahati on the eve of the third ASEAN—INDIA Summit, the Prime Minister called it 'a journey in to the future demonstrating the possibilities in trade, tourism and people to people contact by bringing all these countries together'. He was equally conscious however of the enormous benefits likely to accrue to India's north eastern region through an intensification of ties with ASEAN and its member countries and of which the sub-regional cooperation under BIMSTC is a part.

Milestones Covered

To give practical shape to the objectives of this newly envisaged partnership, the Laos document is accompanied by an Action Plan for the implementation of specific activities and projects that will be periodically reviewed in the light of the dynamic developments in the region and the world. With the signing of this document India joins the array of ASEAN partners such as China, Japan and South Korea. Our relationship with ASEAN has come a long way from the year 1991 when the first steps were taken to move towards a constructive relationship with ASEAN. I had the good fortune of being Secretary (East) in the Ministry of External Affairs at that time and visited several ASEAN countries with that intent. As a result India became a sectoral dialogue partner of ASEAN in 1992. India's trade with ASEAN countries has multiplied a few times since then and now stands at US \$13 billion. It is targeted to reach US \$30 billion by 2007. This is a far cry from the mid-1960's when India declined the offer to be a full member of ASEAN. The Partnership Agreement reached at Laos with ASEAN makes it possible for India to interact with the South East Asia community of 500 million people with a combined GDP of US \$750 billion as a collectivity. ASEAN's integrative mechanisms and the success it has achieved as a regional body should also inspire greater confidence in SAARC (the South Asian Association for Regional Cooperation), as an instrument of change in the South Asian region.

Self-Assessment

1. Choose the correct options:

- (i) The signing of _____ at its Islamabad Summit can be regarded as a landmark in the evolution of
 - (a) SAPTA, ASEAN
 - (b) SAFTA, SAARC
 - (c) SAFTA, ASI-EAN
 - (d) SAPTA, SAARC
- (ii) What is SAARC?
- (iii) What is SAPTA stands for?
- (iv) What is SAFTA stands for?

22.3 Summary

- SAARC commenced the process of liberalization eight years ago when in 1995 the Organization established the South Asian Preferential Trade Arrangement (SAPTA). During the last eight years four rounds of negotiations have been held among the member countries, exchanging lists of items for tariff concessions. So far more than 5000 items have been liberalized.
- South Asia has to contend with another factor that is emerging. Due to the impact of globalization, consumer taste has developed and is growing further in favour of goods from outside the region. As our experience shows, the only way to meet this challenge is to improve the quality of our products for our consumers and make them competitive against imported goods rather than clamp down on imports and fight the rising tide of globalization.

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- It is a happy augury that India's regional relationships are developing a fresh thrust and a new momentum. In a world of shrinking distances, rising expectations and soaring new dreams, the human family has to learn to sink its differences and maximise cooperation all around to carve a new destiny. In that historic journey, entities like the EU, ASEAN and increasingly SAARC stand out as important milestones. Regional cooperation will be propelled as much by the historic force of globalisation as by a new dynamism in bilateral equations.
- For Asia to add this momentum would be necessary to bury the hatchet of earlier conflicts and rivalries and move from the security of weapons to the firmer security of regional and global cooperation, from the worn out concept of Mutually Assured Destruction to that of Mutually Assured Cooperation, from the battle for humanity's survival to that of growth for all. A brave new world beckons to us free of destitution, deprivation and discrimination if only we could heed its call and move towards it in one file, our steps in a harmonious blend.

22.4 Key-Words

1. Economic union : An economic union is a type of trade bloc which is composed of a common market with a customs union.
2. Upsurge : a sudden forceful flow.

22.5 Review Questions

1. Write a short note on Phnom Penh Summit.
2. Discuss the role of SAARC and SAPTA.
3. What are the objectives of Asean union?

Answers: Self-Assessment

1. (i) (b)
 - (ii) SAARC stands for South Asian Association for Regional Co-operation. It is established on December 08, 1985. It has 8 member countries. Member countries are
1. Bangladesh, 2. India, 3. Pakistan, 4. Sri Lanka, 5. Nepal, 6. Bhutan, 7. Maldives, 8. Afghanistan.
 - (iii) SAARC Preferential Trading Arrangement.
 - (iv) South Asian Free Trade Area.

22.6 Further Readings



1. Berglas, Eitan (1981), "Harmonization of Commodity Taxes: Destination, Origin and Restricted Origin Principles," *Journal of Public Economics*, 16, pp. 377-387.
2. Bhagwati, Jagdish and Anne Krueger (1973), *Exchange Control, Liberalization and Economic Development*, *American Economic Review*, 63 (2), May, 419-427.
3. Bhagwati, Jagdish and Arvind Panagariya (1996), "Preferential Trading Areas and Multilateralism: Strangers, Friends or Foes," in J. Bhagwati and A. Panagariya (eds.), *The Economics of Preferential Trade Agreements*, Washington D.C.: AEI Press.
4. Grossman, Gene and Elhanan Helpman (1995), *The Politics of Free-Trade Agreements*, *The American Economic Review*, 85 (4), 667-690.

Unit 23 : Regionalism : EU and NAFTA

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Objectives

After reading this Unit students will be able to:

- Understand India and the European Union (EU).
- Discuss the North American Free Trade Agreement.

Introduction

Regionalism is a term used in international relations. Regionalism also constitutes one of the three constituents of the international commercial system (along with multilateralism and unilateralism). It refers to the expression of a common sense of identity and purpose combined with the creation and implementation of institutions that express a particular identity and shape collective action within a geographical region.

The first coherent regional initiatives began in the 1950s and 1960, but they accomplish little, except in Western Europe with the establishment of the European Communities. Some analysts call these initiatives "old regionalism". In the late 1980s, a new bout of regional integration (also called "new regionalism") began and still continues. A new wave of political initiatives prompting regional integration took place worldwide during the last two decades, while, in international trade, after the failure of the Doha round, regional and bilateral trade deals have mushroomed.

The European Union can be classified as a result of regionalism. The idea that lies behind this increased regional identity is that as a region becomes more economically integrated, it will necessarily become politically integrated as well. The European example is especially valid in this light, as the European Union as a political body grew out of more than 40 years of economic integration within Europe. The precursor to the EU, the European Economic Community (EEC) was entirely an economic entity.

Definition

Joseph Nye defined international region *"as a limited number of states linked by a geographical relationship and by a degree of mutual interdependence"*, and (international) regionalism as *"the formation of interstate associations or groupings on the basis of regions"*. This definition, however, was never unanimously accepted, and some analysts noted, for example, that the plethora of regional organizations founded at the initiative of developing countries had not fostered the rapid growth of regionalism in the Third World. Other authors, such as Ernst B. Haas, stressed the need to distinguish the notions of regional cooperation, regional system, regional organization and regional integration and regionalism.

23.1 India and the European Union

The Summit

The European Union and India had held their first Summit in 2000. The progress made since then was so encouraging that by the middle of last year both sides agreed to establish a EU-India 'strategic partnership.' At the Fifth India-EU Summit on November 8, 2004 where India was represented by Prime Minister Dr. Manmohan Singh and EU by Dutch Prime Minister Dr. Jan Petar Balkenende, President of the European Council, both sides agreed to jointly workout a Comprehensive EU-India Action Plan for a Strategic Partnership and a new Joint Political Declaration, at the next Summit. They also agreed to hold regular, institutionalized parliamentary exchanges between the Indian Parliament and the European Parliament and to promote political interaction between the two sides by fostering cooperation between political parties and trade unions. Cooperation is also to be encouraged between business associations, universities and civil societies.

A new feature now will be the flow of students and scholars between the EU and India through an India specific scholarship programme under EU's project *Erasmus Mundus*. An Energy Panel will also be set up to coordinate joint efforts to ensure energy security in an increasingly volatile energy environment when the rising prices of the fuel are causing havoc particularly in developing societies. Both sides also agreed to organize EU-India Environment Forum and to exchange views and information on issues of mutual interest. Joint workshops on automotive engineering, genomic studies, life sciences and nano-technology will also be held with a view to meet the challenges of the future in a spirit of cooperation. On the wider global plane the European Union and India agreed at the last - Summit to install a dialogue on disarmament and non-proliferation. An agreement was reached 'to consider regular exchange of views on possibilities for cooperation on themes like resolution of conflicts.' These agreements provide a new dimension to EU-India relations for these indicate an interest on the part of both of them to act as global players in concert with each other. This has happened at a time of the enlargement of the EU to 25 countries covering the broad span of Europe all the way from the Atlantic to the Ural and the Arctic to the Mediterranean and in the context of the *Lisbon strategy* to make Europe the world's most competitive economy by 2010. Europe has established a new constitution for itself taking the European Union to a much higher stage of integration than foreseen by the Maastricht Treaty. An expanded Europe and a growing India throw up an enormous potential for a partnership for mutual benefit that the summit document seeks to crystallize.

Technology and Economic Cooperation

One of the highlights of the November 8, 2004 Joint India-EU statement is the decision to speed up the conclusion of an agreement for India joining the European Union's Galileo Global Positioning System as part of their strategic partnership. This satellite navigation project with its network of 30 satellites will become operational by 2008 and will provide a real alternative to the Global Positioning System being run by the US military that the US has the power to turn off selectively. It will guarantee the availability of highest quality signals over the Indian territory. India has agreed to invest money in this project appropriate to its participation in Galileo space, ground and user segments possibly to the tune of US \$200 million. In terms of a strategic partnership India's participation under the Galileo satellite navigation project will stand on the same footing as its cooperation with the EU in the International Thermonuclear Experimental Reactor (ITER) project on fusion energy. The European Union and India already have a history of cooperation in the peaceful exploration and use of outer space. It has been moving forward on a regular basis through the European Space Agency and the Indian Space Research Organization. At the Fifth Summit, while India showed interest in EU's Galileo project, EU flagged its interest in India's *Chandrayaan-I* unmanned lunar exploration mission. It will include a payload of 55 kg of onboard instruments plus a 10 kg impactor for soft landing.

There is also a continuing strategic dialogue between India and the EU on the Information Society. In order to facilitate linkages in the area of research and technological developments, both sides agreed at the Fifth Summit to work towards a mutually acceptable mechanism to connect their information networks. EU and India have signed a MOU for a partnership programme providing for cooperation

in sectors of education, health and environment. Agreement has also been reached on developing a Disaster Management Preparedness Programme and a Trade and Investment Development Programme. The trade between the EU and India now stands at some 30 billion US dollars. The two sides have agreed to intensify their trade cooperation in order to expand bilateral trade and investment flows several times over. It is important that both India and the European Union create an enabling economic environment and increasing access to their growing markets to reap mutual benefits. Europe's investment in India stands now at around US \$5.5 billion whereas in the realm of infrastructure alone there is scope for investment up to US \$150 billion.

Other Areas of Strategic Partnership

Dr. Romano Prodi, President of the European Commission, showed a great deal of interest at the Summit in EU collaborating with India in the energy sector. He recognized that supply and demand in this sector were not in equilibrium looking at its worldwide dimension and called the situation 'dramatic'. He noted that Asia was waking up and the energy needs of countries like India and China, as of the rest of Asia, would grow phenomenally in the years to come. Their development must not get stopped, he said, due to lack of energy and EU should come forward to help bridge the gap. India's Prime Minister on his part pointed out that apart from energy, there were opportunities for the EU for investment in other infrastructure development sectors such as roads, rail, sea ports and airports. Europe could also take advantage of the new drive in India for productivity growth, its world-class institutes of science and technology and management education, and the boom in agriculture, biotechnology and pharmaceutical industry. Dr. Manmohan Singh said that India could be used as a research and development laboratory by the EU to its great advantage while enhancing job opportunities for Indian scientists and engineers. The Prime Minister also drew EU's attention to the vast network of India's banking system and large financial markets. He invited the European Union to look at India as an investment destination of promise and great potential. Citing India and EU as natural partners Dr. Manmohan Singh underlined shared values between the two of democracy, pluralism, rule of law, a free press and an independent judiciary. The strategic partnership between India and EU was vital, he said, for managing the challenges of global inter-dependence.

The European Union and India have also agreed to cooperate intensively on countering terrorism that is proving to be a menace to all their societies and to humankind at large. They will also push forward the Doha Development Agenda and the Framework Convention on Climate Change. They will take steps, too, for the promotion of tourism, enhancement of cooperation in the field of film production and distribution, conservation and restoration of works of art and monuments, scholarly exchanges between them, establishment of chairs on both sides for civilization studies and study of contemporary politico-economic systems under the Cultural Agreement signed at the fifth summit.

A Turning Point

The EU-India Fifth Summit thus marks a turning point in their relationship. While taking note of the ancient bonds between them as important cradles of civilization, the two sides manifested a strong will to meet the challenges of a new world facing them hand in hand as two poles of stability and as strong bastions of liberal democracy and market economy. India now greatly looks forward to a new level of cooperation with Europe from mere trade and investment, which remain very important, to a multiplicity of other areas impinging on human destiny such as space, science and technology, environment, peace and disarmament. Together India and Europe constitute more than a fourth of mankind and a vast chunk of this planet's natural resource. By putting their hearts, minds and resources together they can explore their potential to the fullest limit.

23.2 North American Free Trade Agreement

The **North American Free Trade Agreement (NAFTA)** is an agreement signed by the governments of Canada, Mexico, and the United States, creating a trilateral trade bloc in North America. The agreement came into force on January 1, 1994. It superseded the Canada—United States Free Trade Agreement between the U.S. and Canada.

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NAFTA has two supplements : the North American Agreement on Environmental Cooperation (NAAEC) and the North American Agreement on Labor Cooperation (NAALC).

Negotiation and U.S. Ratification

Following diplomatic negotiations dating back to 1986 among the three nations, the leaders met in San Antonio, Texas, on December 17, 1992, to sign NAFTA. U.S. President George H. W. Bush, Canadian Prime Minister Brian Mulroney and Mexican President Carlos Salinas, each responsible for spearheading and promoting the agreement, ceremonially signed it. The agreement then needed to be ratified by each nation's legislative or parliamentary branch.

Before the negotiations were finalized, Bill Clinton came into office in the U.S. and Kim Campbell in Canada, and before the agreement became law, Jean Chrétien had taken office in Canada.



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SAARC created a free trade area of 1.6 billion people to Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka.

The proposed Canada-U.S. trade agreement had been very controversial and divisive in Canada, and the 1988 Canadian election was fought almost exclusively on that issue. In that election, more Canadians voted for anti-free trade parties (the Liberals and the New Democrats) but the split caused more seats in parliament to be won by the pro-free trade Progressive Conservatives (PCs). Mulroney and the PCs had a parliamentary majority and were easily able to pass the Canada-US FTA and NAFTA bills. However, he was replaced as Conservative leader and prime minister by Kim Campbell. Campbell led the PC party into the 1993 election where they were decimated by the Liberal Party under Jean Chrétien, who had campaigned on a promise to renegotiate or abrogate NAFTA; however, Chrétien subsequently negotiated two supplemental agreements with the new US president. In the US, Bush, who had worked to "fast track" the signing prior to the end of his term, ran out of time and had to pass the required ratification and signing into law to incoming president Bill Clinton. Prior to sending it to the United States Senate, Clinton introduced clauses to protect American workers and allay the concerns of many House members. It also required US partners to adhere to environmental practices and regulations similar to its own.

With much consideration and emotional discussion, the House of Representatives approved NAFTA on November 17, 1993, 234-200. The agreement's supporters included 132 Republicans and 102 Democrats. NAFTA passed the Senate 61-38. Senate supporters were 34 Republicans and 27 Democrats. Clinton signed it into law on December 8, 1993; it went into effect on January 1, 1994. Clinton while signing the NAFTA bill stated that "NAFTA means jobs. American jobs, and good-paying American jobs. If I didn't believe that, I wouldn't support this agreement."

Provisions

The goal of NAFTA was to eliminate barriers to trade and investment between the US, Canada and Mexico. The implementation of NAFTA on January 1, 1994 brought the immediate elimination of tariffs on more than one-half of Mexico's exports to the U.S. and more than one-third of U.S. exports to Mexico. Within 10 years of the implementation of the agreement, all US-Mexico tariffs would be eliminated except for some U.S. agricultural exports to Mexico that were to be phased out within 15 years. Most U.S.-Canada trade was already duty free. NAFTA also seeks to eliminate non-tariff trade barriers and to protect the intellectual property right of the products.

In the area of intellectual property, the North American Free Trade Agreement Implementation Act made some changes to the Copyright law of the United States, foreshadowing the Uruguay Round Agreements Act of 1994 by restoring copyright (within NAFTA) on certain motion pictures which had entered the public domain.

Mechanisms

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NAFTA's effects, both positive and negative, have been quantified by several economists, whose findings have been reported in publications such as the World Bank's *Lessons from NAFTA for Latin America and the Caribbean*, *NAFTA's Impact on North America*, and *NAFTA Revisited* by the Institute for International Economics. Some argue that NAFTA has been positive for Mexico, which has seen its poverty rates fall and real income rise (in the form of lower prices, especially food), even after accounting for the 1994-95 economic crisis. Others argue that NAFTA has been beneficial to business owners and elites in all three countries, but has had negative impacts on farmers in Mexico who saw food prices fall based on cheap imports from US agribusiness, and negative impacts on US workers in manufacturing and assembly industries who lost jobs. Critics also argue that NAFTA has contributed to the rising levels of inequality in both the US and Mexico. Some economists believe that NAFTA has not been enough (or worked fast enough) to produce an economic convergence, nor to substantially reduce poverty rates. Some have suggested that in order to fully benefit from the agreement, Mexico must invest more in education and promote innovation in infrastructure and agriculture.

Investment

The US foreign direct investment (FDI) in NAFTA Countries (stock) was \$357.7 billion in 2009 (latest data available), up 8.8% from 2008.

The US direct investment in NAFTA countries is in nonbank holding companies, and in the manufacturing, finance/insurance, and mining sectors. The foreign direct investment, of Canada and Mexico in the United States (stock) was \$237.2 billion in 2009 (the latest data available), up 16.5% from 2008.

Industry

Maquiladoras (Mexican factories that take in imported raw materials and produce goods for export) have become the landmark of trade in Mexico. These are plants that moved to this region from the United States, hence the debate over the loss of American jobs. Hufbauer's (2005) book shows that income in the maquiladora sector has increased 15.5% since the implementation of NAFTA in 1994. Other sectors now benefit from the free trade agreement, and the share of exports from non-border states has increased in the last five years while the share of exports from maquiladora-border states has decreased. This has allowed for the rapid growth of non-border metropolitan areas, such as Toluca, León and Puebla; all three larger in population than Tijuana, Ciudad Juárez, and Reynosa.

Environment

For more details on this topic, see NAFTA's Impact on the Environment.

Securing U.S. congressional approval for NAFTA would have been impossible without addressing public concerns about NAFTA's environmental impact. The Clinton administration negotiated a side agreement on the environment with Canada and Mexico, the North American Agreement on Environmental Cooperation (NAAEC), which led to the creation of the Commission for Environmental Cooperation (CEC) in 1994. To alleviate concerns that NAFTA, the first regional trade agreement between a developing country and two developed countries, would have negative environmental impacts, the CEC was given a mandate to conduct ongoing *ex post* environmental assessment of NAFTA.

In response to this mandate, the CEC created a framework for conducting environmental analysis of NAFTA, one of the first *ex post* frameworks for the environmental assessment of trade liberalization. The framework was designed to produce a focused and systematic body of evidence with respect to the initial hypotheses about NAFTA and the environment, such as the concern that NAFTA would create a "race to the bottom" in environmental regulation among the three countries, or the hope that NAFTA would pressure governments to increase their environmental protection mechanisms. The CEC has held four symposia using this framework to evaluate the environmental impacts of NAFTA and has commissioned 47 papers on this subject. In keeping with the CEC's overall strategy of transparency and public involvement, the CEC commissioned these papers from leading independent experts.

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NAFTA-related environmental threats instead occurred in specific areas where government environmental policy, infrastructure, or mechanisms, were unprepared for the increasing scale of production under trade liberalization. In some cases, environmental policy was neglected in the wake of trade liberalization; and measures against non-tariff trade barriers, threatened to discourage more vigorous environmental policy. The most serious overall increases in pollution due to NAFTA were found in the base metals sector, the Mexican petroleum sector, and the transportation equipment sector in the United States and Mexico, but not in Canada.

Agriculture

From the earliest negotiation, agriculture was (and still remains) a controversial topic within NAFTA, as it has been with almost all free trade agreements that have been signed within the WTO framework. Agriculture is the only section that was not negotiated trilaterally; instead, three separate agreements were signed between each pair of parties. The Canada-U.S. agreement contains significant restrictions and tariff quotas on agricultural products (mainly sugar, dairy, and poultry products), whereas the Mexico-U.S. pact allows for a wider liberalization within a framework of phase-out periods (it was the first North-South FTA on agriculture to be signed).

The overall effect of the Mexico-U.S. agricultural agreement is a matter of dispute. Mexico did not invest in the infrastructure necessary for competition, such as efficient railroads and highways, which resulted in more difficult living conditions for the country's poor. Mexico's agricultural exports increased 9.4 percent annually between 1994 and 2001, while imports increased by only 6.9 percent a year during the same period.

One of the most affected agricultural sectors is the meat industry. Mexico has gone from a small-key player in the pre-1994 U.S. export market to the 2nd largest importer of U.S. agricultural products in 2004, and NAFTA may be credited as a major catalyst for this change. The allowance of free trade removed the hurdles that impeded business between the two countries. As a result, Mexican farmers have provided a growing meat market for the U.S., leading to an increase in sales and profits for the U.S. meat industry. This coincides with a noticeable increase in Mexican per capita GDP that has created large changes in meat consumption patterns, implying that Mexicans can now afford to buy more meat and thus per capita meat consumption has grown.

Mobility of persons

According to the Department of Homeland Security Yearbook of Immigration Statistics, during fiscal year 2006 (*i.e.*, October 2005 through September 2006), 73,880 foreign professionals (64,633 Canadians and 9,247 Mexicans) were admitted into the United States for temporary employment under NAFTA (*i.e.*, in the TN status). Additionally, 17,321 of their family members (13,136 Canadians, 2,904 Mexicans, as well as a number of third-country nationals married to Canadians and Mexicans) entered the U.S. in the treaty national's dependent (TD) status. Because DHS counts the number of the new 1-94 arrival records filled at the border, and the TN-1 admission is valid for three years, the number of non-immigrants in TN status present in the U.S. at the end of the fiscal year is approximately equal to the number of admissions during the year. (A discrepancy may be caused by some TN entrants leaving the country or changing status before their three-year admission period has expired, while other immigrants admitted earlier may change their status to TN or TD, or extend TN status granted earlier).

Self-Assessment

1. Choose the correct options:

- (i) Regionalism can be studied from any of the following perspectives EXCEPT
 - (a) Functional regions.
 - (b) Non-governmental regions.
 - (c) Formal regions.
 - (d) Vernacular regions.
 - (e) None of the above.

Notes

- (ii) All of the following are regional trade organizations EXCEPT
- | | |
|------------------------|---------------|
| (a) NAFTA. | (b) NATO. |
| (c) the EU. | (d) Mercosur. |
| (e) None of the above. | |
- (iii) NAFTA is an agreement signed by the governments of
- | | |
|-----------------------|------------------|
| (a) Canada | (b) Mexico |
| (c) the United States | (d) All of these |
- (iv) NAFTA is implemented on
- | | |
|----------------|---------------|
| (a) Jan. 1994 | (b) June 1993 |
| (c) March 1990 | (d) May 1998 |

23.3 Summary

- NAFTA (North American Free Trade Agreement) is the cooperation of free trade in North America that aims to facilitate member states in the fields of economics ranging from the release of tariffs and barriers to trade and the production of certain goods to the fair treatment of foreign investors to invest in their individual member countries (Krimawati). Its members are Canada, Mexico, and the United States. NAFTA is the second largest free trade area after the European (Vogel, 2009).
- United States and Canada have entered into free trade cooperation since 1988. Economic cooperation is limited to bilateral cooperation aimed at improving the condition of the Canadian economy worsened due to rising unemployment and the number of Canadian companies are moving their investment into the United States. Cooperation is considered as the embryo of the NAFTA.
- NAFTA was established in 1989 in Washington DC through trade agreement between Canada and the United States, which was attended by representatives of each. This agreement resulted in an agreement to eliminate or reduce tariffs between the two countries. In December 1992, NAFTA was signed by the presidents of the three countries, namely Brian Mulroney (Canada), Carlos Salinas de Gortari (Mexico), and George H. W. Bush (United States). The signing of NAFTA should be followed by a legislative ratification of the three countries. However, the United States legislature apparently alarming environmental and labor issues. Therefore, added the two agreements, each devoted to labor issues and environmental issues. Just beginning to be implemented NAFTA on January 1, 1994 (www.fas.usda.gov, 2009).
- Canada and Mexico are the second export market and the third largest for the United States. Commencing in 1992-1998, the value of U.S. agricultural exports increased by 26%, while accounting for 1997-1998, exports of food and food United States to Mexico increased from 881 million to 5.9 billion Dollars Dollars. This is the biggest level for 5 years in NAFTA. Mexico itself is a major target of U.S. food exports, and the United States have a supply of 75% of Mexican food imports. While Canada has been a stable market for U.S. food trade by increasing food exports by 10% every year from 1990 to 1998. Food in question is fruits, vegetables, snacks and other food consumption.
- Canada and Mexico needs the United States as an aid donor and the economies of both countries are deteriorating. For Canada and Mexico, NAFTA is the arena of competition among members. Mexico especially, most look very dependence on the United States in the economic sector.
- NAFTA can be regarded as one of the simplest forms of regionalism in the form of free trade areas. The relationship between the extent of member states in free trade relations in which each member benefits. Interests of members of the three countries in NAFTA of course not only on the economic sector. These countries also have a political interest, such as Mexico and Canada that require the United States to increase its bargaining position in economic assistance. NAFTA itself was established in order to offset the power of the new European Union.

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- The question which then arises is whether the existence of NAFTA are still provides benefits to all three of its member countries? Is not the United States is seen as the "backbone" of the sustainability of NAFTA? And is not Canada and Mexico to be highly dependent on the United States? And whether NAFTA will evolve into regionalism at the higher levels? What is clear, there is NAFTA and lives today. Although losses were obtained not less, but it seems that the benefits gained by the three NAFTA countries to make enough to survive until today. NAFTA also has great potential to develop forms of cooperation as seen over the past few years of existence, NAFTA countries experiencing significant growth.

23.4 Key-Words

1. Disarmament : Disarmament is the act of reducing, limiting, or abolishing weapons. Disarmament generally refers to a country's military or specific type of weaponry. Disarmament is often taken to mean total elimination of weapons of mass destruction, such as nuclear arms. General and Complete Disarmament refers to the removal of all weaponry, including conventional arms.
2. Multilateral institutions : The international institutions which set the rules of international behaviour, for example the World Trade Organization.

23.5 Review Questions

1. What is meant by regionalism? Discuss.
2. Discuss the role of NAFTA.
3. Write a short note on India and the European Union.

Answers: Self-Assessment

1. (i) (b) (ii) (b) (iii) (d) (iv) (a)

23.6 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 24 : Multilateralism and WTO

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- 24.2 Principles of the Multilateral Trading System Under the WTO
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Objectives

After reading this Unit students will be able to:

- Elucidate the Significance of WTO.
- Describe the Principles of the Multilateral Trading System under the WTO.
- Provide An Overview of WTO Agreements.

Introduction

The World Trade Organization (WTO) is the only international organization that deals with global rules of trade between nations. It provides a framework for conduct of international trade in goods and services. It lays down the rights and obligations of governments in the set of multilateral agreements discussed later in this chapter. In addition to goods and services, it also covers a wide range of issues related to international trade, such as protection of intellectual property rights and dispute settlement, and prescribes disciplines for governments in formulation of rules, procedures, and practices in these areas. Moreover, it also imposes discipline at the firm level in certain areas, such as export pricing at unusually low prices.

The basic objective of the rule-based system of international trade under the WTO is to ensure that international markets remain open and their access is not disrupted by the sudden and arbitrary imposition of import restrictions. Under the Uruguay Round, the national governments of all the member countries have negotiated improved access to the markets of the member countries so as to enable business enterprises to convert trade concessions into new business opportunities. The emerging legal systems not only confer benefits on manufacturing industries and business enterprises but also create rights in their favour. The WTO also covers areas of interest to international business firms, such as customs valuation, pre-shipment inspection services, and import licensing procedures, wherein the emphasis has been laid on transparency of the procedures so as to restrain their use as non-tariff barriers. The agreements also stipulate rights of exporters and domestic procedures to initiate actions against dumping of foreign goods. An international business manager needs to develop a thorough understanding of the new opportunities and challenges of the multilateral trading system under the WTO.

24.1 WTO (World Trade Organization)

The WTO came into existence on 1 January 1995 as successor to the General Agreements on Tariffs and Trade (GATT). Its genesis goes back to the post-Second-World-War period in the late 1940s when economies of most European countries and the US were greatly disrupted following the war and the great depression of the 1930s. Consequently a United Nations Conference on Trade and Employment was convened at Havana in November 1947. It led to an international agreement called Havana Charter to create an International Trade Organization (ITO), a specialized agency of the United Nations to handle the trade side of international economic cooperation. The draft ITO charter was ambitious and extended beyond world trade discipline to rules on employment, commodity agreements, restrictive business practices, international investment, and services. However, the attempt to create the ITO was aborted as the US did not ratify it and other countries found it difficult to make it operational without US support.

The combined package of trade rules and tariff concessions negotiated and agreed by 23 countries out of 50 participating countries became known as General Agreement on Tariffs and Trade (GATT): an effort to salvage from the aborted attempt to create the ITO. India was also a founder member of GATT, a multilateral treaty aimed at trade liberalization. GATT provided a multilateral forum during 1948-94 to discuss the trade problems and reduction of trade barriers. As shown in Exhibit its membership increased from 23 countries in 1947 to 123 countries by 1994. GATT remained a provisional agreement and organization throughout these 47 years and facilitated considerably, tariff reduction. During its existence from 1948 to 1994, average tariffs on manufactured goods in developed countries declined from about 40 per cent to a mere 4 per cent. It was only during the Kennedy round of negotiations in 1964-67, that an anti-dumping agreement and a section of development under the GATT were introduced. The first major attempt to tackle non-tariff barriers was made during the Tokyo round. The eighth round of negotiations known as the Uruguay Round of 1986-94 was the most comprehensive of all and led to the creation of the WTO with a new set up of agreements.

WTO vs GATT

The distinguishing features of WTO vis-a-vis erstwhile GATT are as follows :

- GATT remained a 'provisional' agreement and organization throughout 47 years during 1948 to 1994, whereas WTO commitments are permanent.

| Exhibit : Multilateral Trade Rounds under GATT/WTO | | | |
|--|------------|--|-----------|
| Year | Round name | Subjects covered | Countries |
| 1947 | Geneva | Tariffs | 23 |
| 1949 | Annecy | Tariffs | 13 |
| 1951 | Torquay | Tariffs | 38 |
| 1956 | Geneva | Tariffs | 26 |
| 1960-61 | Dillon | Tariffs | 26 |
| 1964-67 | Kennedy | Tariffs and anti-dumping measures | 62 |
| 1973-79 | Tokyo | Tariffs, non-tariff measures, framework agreements | 102 |
| 1986-94 | Uruguay | Tariffs, non-tariff measures, rules, services, intellectual property, dispute settlement, textiles, agriculture, creation of WTO, etc. | 123 |

| | | | |
|--------------|------|--|-----|
| 2001-present | Doha | Tariffs on goods, Non-agriculture market access (NAMA), special and differential treatment, trade facilitation, etc. | 150 |
|--------------|------|--|-----|

Notes

Source : WTO.

- GATT rules mainly applied to trade in goods, whereas WTO covers other areas, such as services, intellectual property, etc.
- GATT had contracting parties, whereas WTO has members.
- GATT was essentially a set of rules of the multilateral treaty with no institutional foundation, whereas WTO is a permanent institution with its own Secretariat.
- A country could essentially follow domestic legislation even if it violated a provision of the GATT agreement which is not allowed by the WTO.
- In WTO, almost all the agreements are multilateral in nature involving commitment of the entire membership, whereas a number of GATT provisions by the 80s were plurilateral and therefore selective.
- The WTO also covers certain grey areas, such as agriculture, textiles and clothing, not covered under the GATT.
- The dispute settlement system under the WTO is much more efficient, speedy, and transparent unlike the GATT system which was highly susceptible to blockages.

Why Should a Country Join the WTO ?

Despite the disciplinary framework for conduct of international trade under the WTO, countries across the world including the developing countries were in a rush to join the pack. The WTO has nearly 153 members, accounting for over 97 per cent of world trade. Presently, 34 governments hold observer status, out of which 31 are actively seeking accession, including large trading nations, such as Russia and Taiwan. The major reasons for a country to join the WTO are

- Since each country needs to export its goods and services to receive foreign exchange for essential imports, such as capital goods, technology, fuel, and sometimes even food, it requires access to foreign markets. But countries require permission for making their goods and services enter foreign countries. Thus countries need to have bilateral agreements with each other. By joining a multilateral framework like the WTO, the need to have individual bilateral agreements is obviated as the member countries are allowed to export and import goods and services among themselves.
- An individual country is unlikely to get a better deal in bilateral agreements than what it gets in a multilateral framework. It has been observed that developing countries had to commit to a greater degree to developed countries in bilateral agreements than what is required under the WTO.
- A country can learn from the experiences of other countries, being part of the community of countries and influence the decision-making process in the WTO.
- The WTO provides some protection against subjective actions of other countries by way of its dispute settlement system that works as an in-built mechanism for enforcement of rights and obligations of member countries.
- It would be odd to remain out of WTO framework for conducting international trade that has been in existence for about six decades and accounts for over 97 per cent of world trade. It may even be viewed as suspicious by others.

Functions of WTO

The major function of the WTO is to ensure the flow of international trade as smoothly, predictably, and freely as possible. This is a multilateral trade organization aimed at evolving a liberalized trade regime under a rule-based system. The basic functions of WTO are

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- To facilitate the implementation, administration, and operation of trade agreements
- To provide a forum for further negotiations among member countries on matters covered by the agreements as well as on new issues falling within its mandate
- Settlement of differences and disputes among its member countries
- To carry out periodic reviews of the trade policies of its member countries
- To assist developing countries in trade policy issues, through technical assistance and training programmes
- To cooperate with other international organizations

Decision Making

A majority vote is also possible but it has never been used in the WTO and was extremely rare in the WTO's predecessor, GATT. The WTO's agreements have been ratified in all members' parliaments. Unlike other international organizations, such as the World Bank and the IMF, in WTO, the power is not delegated to the board of directors or the organization's head.



WTO is a member-driven consensus-based organization. All major decisions in the WTO are made by its members as a whole, either by ministers who meet at least once every two years or by their ambassadors who meet regularly in Geneva.

Organizational Structure of the WTO

The organizational structure of WTO as summarized in Figure 1, consists of the Ministerial Conference, General Council, council for each broad area, and subsidiary bodies.

First level : The Ministerial Conference

The Ministerial Conference is the topmost decision-making body of the WTO, which has to meet at least once every two years.

Second level : General Council

Day-to-day work in between the Ministerial Conferences is handled by the following three bodies:

- The General Council
- The Dispute Settlement Body
- The Trade Policy Review Body

In fact, all these three bodies consist of all WTO members and report to the Ministerial Conference, although they meet under different terms of reference.

Third level : Councils for each broad area of trade

There are three more councils, each handling a different broad area of trade, reporting to the General Council.

- The Council for Trade in Goods (Goods Council)
- The Council for Trade in Services (Services Council)
- The Council for Trade Related Aspects of Intellectual Property Rights (TRIPS Council)

Each of these councils consists of all WTO members and is responsible for the working of the WTO agreements dealing with their respective areas of trade. These three also have subsidiary bodies. Six other bodies, called committees, also report to the General Council, since their scope is smaller. They cover issues, such as trade and development, the environment, regional trading arrangements, and administrative issues. The Singapore Ministerial Conference in December 1996 decided to create new working groups to look at investment and competition policy, transparency in government procurement, and trade facilitation.

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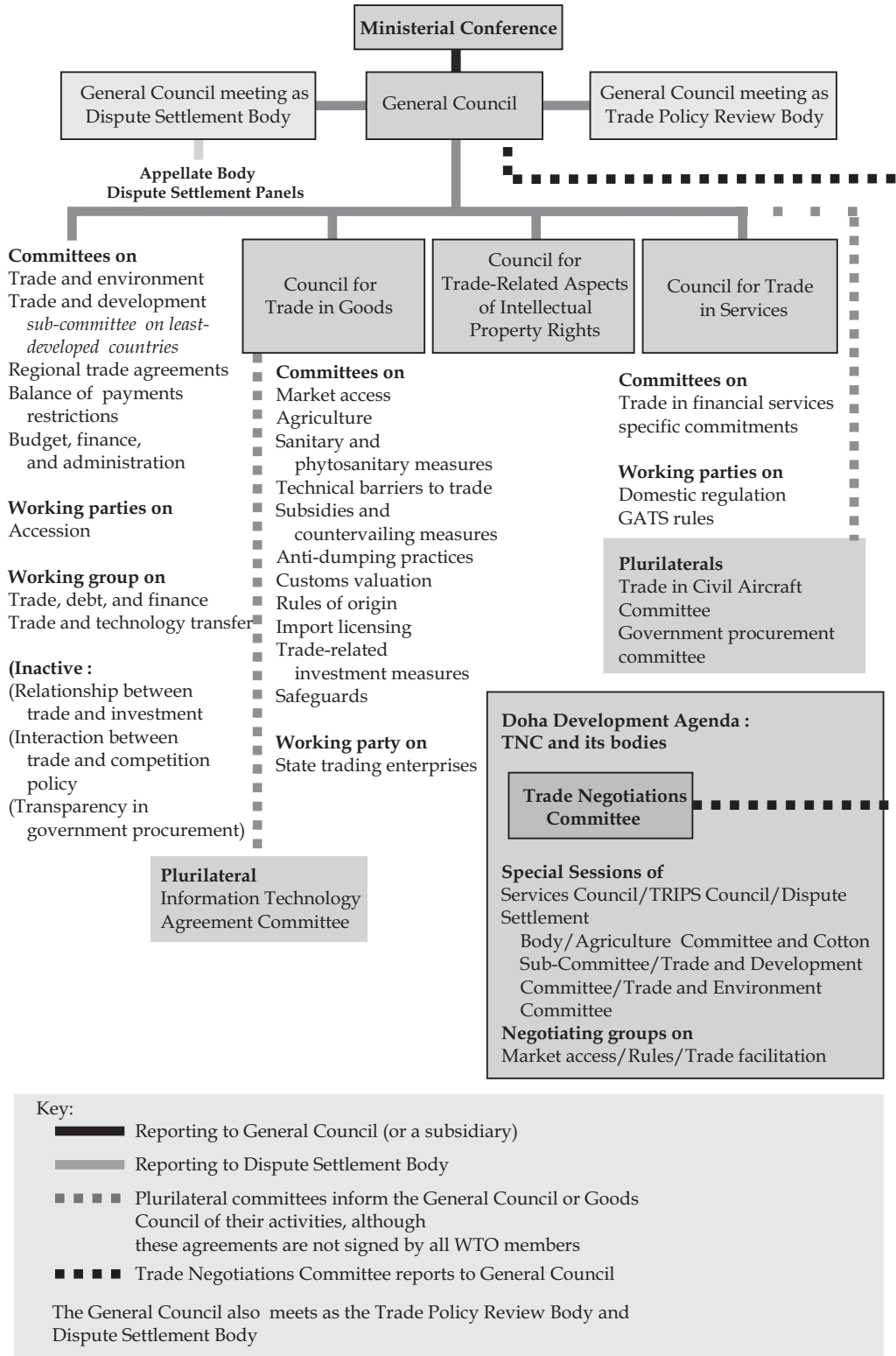


Figure 24.1 : WTO Structure

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Fourth level : Subsidiary bodies

Each of the higher councils has subsidiary bodies that consist of all member countries.

Goods Council : It has 11 committees dealing with specific subjects, such as agriculture, market access, subsidies, anti-dumping measures, etc.

Services Council : The subsidiary bodies of the Services Council deal with financial services, domestic services, GATS rules, and specific commitments.

Dispute settlement body : It has two subsidiaries, i.e., the dispute settlement 'panels' of experts appointed to adjudicate on unresolved disputes, and the Appellate Body that deals with appeals at the General Council level.

Formally all of these councils and committees consist of the full membership of the WTO. But that does not mean they are the same, or that the distinctions are purely bureaucratic. In practice, the people participating in the various councils and committees are different because different levels of seniority and different areas of expertise are needed. Heads of missions in Geneva (usually ambassadors) normally represent their countries at the General Council level. Some of the committees can be highly specialized and sometimes governments send expert officials from their countries to participate in these meetings. Even at the level of the Goods, Services, and TRIPS councils, many delegations assign different officials to cover different meetings. All WTO members may participate in all councils, etc., except the Appellate Body, dispute settlement panels, textile monitoring body, and plurilateral committees.

The WTO has a permanent Secretariat based in Geneva, with a staff of around 560 and is headed by the Director-General. It does not have branch offices outside Geneva. Since decisions are taken by the members themselves, the Secretariat does not have the decision-making role that other international bureaucracies are given. The Secretariat's main duties are to extend technical support for the various councils and committees and the Ministerial Conferences, to provide technical assistance for developing countries, to analyse world trade, and to explain WTO affairs to the public and media. The Secretariat also provides some forms of legal assistance in the dispute settlement process and advises governments wishing to become members of the WTO.

24.2 Principles of the Multilateral Trading System Under the WTO

For an international business manager, it is difficult to go through the whole of the WTO agreements which are lengthy and complex being legal texts covering a wide range of activities. The agreements deal with a wide range of subjects related to international trade, such as agriculture, textiles and clothing, banking, telecommunications, government purchases, industrial standards and product safety, food sanitation regulations, and intellectual property. However, a manager dealing in international markets needs to have an understanding of the basic principles of WTO which form the foundation of the multilateral trading system. These principles are discussed below.

Trade without discrimination

Under the WTO principles, a country cannot discriminate between its trading partners and products and services of its own and foreign origin.

Most-favoured nation treatment : Under WTO agreements, countries cannot normally discriminate between their trading partners. In case a country grants someone a special favour (such as a lower rate of customs for one of their products), then it has to do the same for all other WTO members. The principle is known as Most-favoured nation (MFN) treatment. This clause is so important that it is the first article of the General Agreement on Tariffs and Trade (GATT), which governs trade in goods. MFN is also a priority in the General Agreement on Trade in Services (GATS, Article 2) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS, Article 4), although in each agreement, the principle is handled slightly differently. Together, these three agreements cover all three main areas of trade handled by the WTO.

Some exceptions to the MFN principle are allowed as under :

- Countries can set up a free trade agreement that applies only to goods traded within the group —discriminating against goods from outside.

- Countries can provide developing countries special access to their markets.
- A country can raise barriers against products that are considered to be traded unfairly from specific countries.
- In services, countries are allowed, in limited circumstances, to discriminate.

But the agreements only permit these exceptions under strict conditions. In general, MFN means that every time a country lowers a trade barrier or opens up a market, it has to do so for the same goods or services from all its trading partners—whether rich or poor, weak or strong.

National treatment: The WTO agreements stipulate that imported and locally-produced goods should be treated equally—at least after the foreign goods have entered the market. The same should apply to foreign and domestic services, and to foreign and local trademarks, copyrights and patents. This principle of ‘national treatment’ (giving others the same treatment as one’s own nationals) is also found in all the three main WTO agreements, i.e., Article 3 of GATT, Article 17 of GATS, and Article 3 of TRIPS. However, the principle is handled slightly differently in each of these agreements. National treatment only applies once a product, service, or an item of intellectual property has entered the market. Therefore, charging customs duty on an import is not a violation of national treatment even if locally-produced products are not charged an equivalent tax.

Gradual move towards freer markets through negotiations

Lowering trade barriers is one of the most obvious means of encouraging international trade. Such barrier includes customs duties (or tariffs) and measures, such as import bans or quotas that restrict quantities selectively. Since GATT’s creation in 1947-48, there have been eight rounds of trade negotiations. At first these focused on lowering tariffs (customs duties) on imported goods. As a result of the negotiations, by the mid-1990s industrial countries’ tariff rates on industrial goods had fallen steadily to less than 4 per cent. But by the 1980s, the negotiations had expanded to cover non-tariff barriers on goods, and to new areas, such as services and intellectual property. The WTO agreements allow countries to introduce changes gradually through ‘progressive liberalization’. Developing countries are usually given longer period to fulfil their obligations.

Increased predictability of international business environment

Sometimes, promising not to raise a trade barrier can be as important as lowering one, because the promise gives businesses a clearer view of their future market opportunities. With stability and predictability, investment is encouraged, jobs are created, and consumers can fully enjoy the benefits of competition—choice and lower prices. The multilateral trading system is an attempt by governments to make the business environment stable and predictable.

One of the achievements of the Uruguay Round of multilateral trade talks was to increase the amount of trade under binding commitments. In the WTO, when countries agree to open their markets for goods or services, they ‘bind’ their commitments. For goods, these bindings amount to ceiling on customs tariff rates. A country can change its bindings, but only after negotiating with its trading partners, which could mean compensating them for loss of trade. In agriculture, 100 per cent of products now have bound tariffs. The result of this is a substantially higher degree of market security for traders and investors.

The trading system under the WTO attempts to improve predictability and stability in other ways as well. One way is to discourage the use of quotas and other measures used to set limits on quantities of imports as administering quotas can lead to more red-tape and accusations of unfair play. Another is to make countries’ trade rules as clear and public (transparent) as possible. Many WTO agreements require governments to disclose their policies and practices publicly within the country or by notifying the WTO. The regular surveillance of national trade policies through the Trade Policy Review Mechanism provides a further means of encouraging transparency both domestically and at the multilateral level.

Promoting fair competition

The WTO is sometimes described as a ‘free trade’ institution, but that is not entirely accurate. The system does allow tariffs and, in limited circumstances, other forms of protection. More accurately, it is a system of rules dedicated to open, fair, and undistorted competition.

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The rules on non-discrimination—MFN and national treatment—are designed to secure fair conditions of trade. The WTO has also set rules on dumping and subsidies which adversely affect fair trade. The issues are complex, and the rules try to establish what is fair or unfair, and how governments can respond, in particular by charging additional import duties calculated to compensate for damage caused by unfair trade. Many of the other WTO agreements aim to support fair competition, such as in agriculture, intellectual property, and services. The agreement on government procurement (a 'plurilateral' agreement because it is signed by only a few WTO members) extends competition rules to purchases by thousands of government entities in many countries.

24.3 WTO Agreements : An Overview

WTO agreements are often referred to as 'trade rules' and hence the WTO is described as a 'rule-based' system. These rules are actually agreements negotiated by the member countries' governments. The WTO agreements fall in a broad structure of six main parts as under :

- An umbrella agreement (the agreement establishing WTO)
- Agreements for each of the three broad areas of trade covered by WTO
 - Goods
 - Services
 - Intellectual property
- Dispute settlement
- Reviews of governments' trade policies

The WTO agreements cover two basic areas—goods and services in addition to intellectual property. The agreements for goods under GATT deal with the following sector-specific issues, such as agriculture, health regulations for farm products (SPS), textiles and clothing, product standards, investment measures, anti-dumping measures, customs valuation methods, pre-shipment inspection, rules of origin, import licensing, subsidies and counter-measures, and safeguards. The specific issues covered by GATS include movement of natural persons, air transport, financial services, shipping, and telecommunications. Moreover, these agreements are dynamic rather than static in nature as they are negotiated from time to time. The new agreements can be added to the package. For instance, the Doha Development Agenda launched in the Doha Ministerial Conference is currently under negotiations.

General Agreement on Tariffs and Trade

The General Agreement on Tariffs and Trade (GATT) has significantly widened the access to international markets, besides providing legal and institutional framework. Under the WTO regime, countries can break the commitment (i.e., raise the tariff above the bound rate), but only with difficulty. To do so, a member country is required to negotiate with the countries most concerned and that could result in compensation for trading partners' loss of trade.

Opening Up of the Industrial Sector

Market access schedules under GATT include commitments of member countries to reduce the tariffs and not to increase the tariffs above the listed rates, that means the rates are bound. For developed countries, bound rates are the rates generally charged. Most developing countries have bound the rates somewhat higher than actual rates charged, so the bound rates can serve as a ceiling.

Reduction in tariffs : Individual member countries have listed their commitments to reduce the tariff rates in schedules annexed to the Marrakesh Protocol to the General Agreement on Tariffs and Trade, 1994, which is a legally binding agreement. Under these commitments, developed countries were to cut the average tariff levels on industrial products by 40 per cent in five equal instalments from 1 January 1995. However, the percentage of tariff reduction on some products of export interest to developing countries, such as textiles and clothing and leather and leather products is much lower than the average, as they are considered sensitive. A number of developing countries and economies-in-transition agreed to reduce their tariffs by nearly two-thirds of the percentage achieved by developed

countries. As a result, the weighted average levels of tariffs applicable to industrial products were expected to fall in a period of five years from

- 6.3 per cent to 3.8 per cent in developed countries
- 15.3 per cent to 12.3 per cent in developing countries
- 8.6 per cent to 6 per cent in the transition economies

Additional commitments were made under the Information Technology Agreement in 1997 wherein 40 countries accounting for more than 92 per cent of trade in information technology products, agreed to eliminate import duties and other charges on most of these products by 2000 and on a handful of the products by 2005. As with other tariff commitments, each participating country is applying its commitments equally to exports from all WTO members, i.e. on a most-favoured nation basis, even from members that did not make the commitments.

Tariff bindings : Besides the commitments to reduce tariffs, market access schedules represent commitments on the part of member countries not to increase the tariffs above the listed rates known as 'bound' rates. Binding of tariff lines has substantially increased the degree of market security for traders and investors.

Opening Up International Business Opportunities in Textiles

World trade in textiles and clothing had been subject to a large number of bilateral quota arrangements over the past four decades. The range of products covered by quotas expanded from cotton textiles under the short-term and long-term arrangements of the 1960s and early 1970s to an ever-increasing list of textile products made from natural and man-made fibres under five expansions of the multi-fibre agreement. From 1974 until the end of the Uruguay Round, the international trade in textiles was governed by the Multi-fibre Arrangement (MFA). This was a framework for bilateral agreements or unilateral actions that established quotas limiting imports into countries whose domestic industries were facing serious damage from rapidly increasing imports.

The quota system under MFA conflicted with GATT's general preference for customs tariffs instead of measures that restricted quantities. The quotas were also exceptions to the GATT principle of treating all trading partners equally because they specified how much the importing country was going to accept from individual exporting countries.

Since 1995, the WTO's Agreement on Textiles and Clothing (ATC) took over from the MFA and had been the WTO's significant agreement.

A Textiles Monitoring Body (TMB) supervised the implementation of the agreement. It monitored actions taken under the agreement to ensure that they are consistent, and reports to the Council on Trade in Goods and reviews the operation of the agreement. The TMB also dealt with disputes under the ATC. If they remain unresolved, the disputes could be brought to the WTO's regular Dispute Settlement Body.

General Agreement on Trade in Services

The General Agreement on Trade in Services (GATS) is the first and only set of multilateral rules governing international trade in services. Negotiated in the Uruguay Round, it was developed in response to the strong growth of the services economy over the past three decades and the greater potential for marketing services internationally brought about by the communications revolution. The GATS has three elements :

1. The main text containing general obligations and disciplines
2. Annexes dealing with rules for specific sectors
3. Individual countries' specific commitments to provide access to their markets, including indications where countries are temporarily not applying the most-favoured nation principle of non-discrimination.

General obligations and disciplines : The agreement covers all internationally-traded services, e.g., banking, telecommunications, tourism, professional services, etc. It also defines four ways (or 'modes') of trading services internationally :

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Mode 1 : Services supplied from one country to another (e.g., international telephone calls), officially known as 'cross-border supply'

Mode 2 : Consumers or firms making use of a service in another country (e.g. tourism), officially 'consumption abroad'

Mode 3 : A foreign company setting up subsidiaries or branches to provide services in another country (e.g., foreign banks setting up operations in a country), officially 'commercial presence'

Mode 4 : Individuals travelling from their own country to supply services in another (e.g., fashion models or consultants), officially 'presence of natural persons'

Most-favoured-nation treatment : MFN also applies to the service sector, wherein a member country's trading partners are to be treated equally on the principle of non-discrimination. Under GATS, if a country allows foreign competition in a sector, equal opportunities in that sector should be given to service providers from all other WTO members. This applies even if the country has made no specific commitment to provide foreign companies access to its markets under the WTO. MFN applies to all services, but some special temporary exemptions have been allowed to countries that already have preferential agreements in services with their trading partners. Such exemptions are expected to last not more than 10 years.

Commitments on market access and national treatment : Individual countries' commitments to open markets in specific sectors and the extent of their openness has been the outcome of the Uruguay Round negotiations. The commitments appear in 'schedules' that list the sectors being opened, the extent of market access being given in those sectors (e.g., whether there are any restrictions on foreign ownership), and any limitation on national treatment (whether some rights granted to local companies will not be granted to foreign companies). For instance, if a government commits itself to allow foreign banks to operate in its domestic market, that is a market-access commitment. And if the government limits the number of licences it will issue, then that is a market-access limitation. If it also says foreign banks are only allowed one branch while domestic banks are allowed numerous branches, that is an exception to the national treatment principle.

These clearly defined commitments are 'bound'—like bound tariffs for trade in goods, and they can only be modified after negotiations with affected countries. Because 'unbinding' is difficult, the commitments are virtually guaranteed conditions for foreign exporters and importers of services and investors in the service sector.

Governmental services are explicitly carved out of the agreement and there is nothing in GATS that forces a government to privatize service industries. The carve-out is an explicit commitment by WTO governments to allow publicly funded services in core areas of their responsibility. Governmental services are defined in the agreements as those that are not supplied commercially and do not compete with other suppliers. These services are not subject to any GATS discipline, are not covered by the negotiations, and the commitments on market access and national treatment do not apply to them.

Transparency GATS stipulates that governments must publish all relevant laws and regulations, as set-up enquiry points within their bureaucracies. Foreign companies and governments can then use these inquiry points to obtain information about regulations in any service sector. Further, the member countries' governments have to notify the WTO of any change in regulations that apply to the services that fall under specific commitments.

Objectivity and reasonability of regulations : Since domestic regulations are the most significant means of exercising influence or control over services trade, the agreement says governments should regulate services reasonably, objectively, and impartially. When a government makes an administrative decision that affects a service, it should also provide an impartial means for reviewing the decision (e.g., a tribunal). GATS does not require any service to be deregulated. Commitments to liberalize do not affect governments' right to set levels of quality, safety, or price, or to introduce regulations to pursue any other policy objective. A commitment to national treatment, e.g., would only mean that the same regulations would apply to foreign suppliers as to nationals. Governments naturally retain their right to set qualification requirements for doctors or lawyers, and to set standards to ensure consumer health and safety.

Recognition : When two or more governments have agreements recognizing each other's qualifications (e.g., the licensing or certification of service suppliers), GATS says other members must also be given

a chance to negotiate comparable pacts. The recognition of other countries' qualifications must not be discriminatory, and it must not amount to protectionism in disguise. These recognition agreements have to be notified to the WTO.

International payments and transfers : Once a government has made a commitment to open a service sector to foreign competition, it must not normally restrict money being transferred out of the country as payment for services supplied (current transactions) in that sector. The only exception is when there are balance of payments difficulties, and even then the restrictions must be temporary and subject to other limits and conditions.

Progressive liberalization : As the Uruguay Round was only the beginning, GATS requires more negotiations, which began in early 2000 and formed part of the Doha Development Agenda. The goal is to take the liberalization process further by increasing the level of commitments in schedules.

Complexity of International Trade in Services

International trade in goods is a relatively simple idea to grasp—a product is transported from one country to another. Trade in services is much more diverse. Telephone companies, banks, airlines, and accountancy firms provide their services in ways quite different from each other. The GATS annexes cover some of the diversity as discussed here.

Movement of natural persons : This annex deals with negotiations on individuals' rights to stay temporarily in a country for the purpose of providing a service. It specifies that the agreement does not apply to people seeking permanent employment or to conditions for obtaining citizenship, permanent residence, or permanent employment.

Financial services : Instability in the banking system affects the whole economy. The financial services annex gives governments very wide latitude to take prudential measures, such as those for the protection of investors, depositors, and insurance policy holders, and to ensure the integrity and stability of the financial system. The annex also excludes from the agreement services provided when a government is exercising its authority over the financial system, e.g., central banks' services.

Telecommunications : The telecommunications sector has a dual role : it is a distinct sector of economic activity, and an underlying means of supplying other economic activities (such as, electronic money transfers). The annex says governments must ensure that foreign service suppliers are given access to the public telecommunications networks without discrimination.

Air transport services : Under this annex, traffic rights and directly related activities are excluded from GATS' coverage. They are handled by other bilateral agreements. However, the annex establishes that GATS will apply to aircraft repair and maintenance services, marketing of air transport services, and computer-reservation services.

The capabilities of services and areas of interests are vastly different in developed and developing countries. Developed countries have always been keen to use pressure tactics to access developing countries' markets in their areas of special interest, i.e., financial, and telecommunication services that received priority in the negotiation process. On the other hand, developed countries have been hesitant to open up their markets in the service sectors of interest to developing countries in Mode 4 and Mode 1.

India's efforts have been to secure binding commitments in Cross Border Supply of Services (Mode 1) and Movement of Natural Persons (Mode 4). Mode 4 objectives are driven by the competence of India's service professionals and Mode 1 objectives by its strong competitive edge in IT and IT enabled services (ITeS). India has been pushing for the elimination of the Economic Needs Test, clear prescription of the duration of stay, provisions for extension, etc. Some of these concerns have been addressed in the Hong-Kong Ministerial Declaration, which provides a direction for developing disciplines in domestic regulations.

Agreements on Anti-dumping Practices

The WTO agreement on anti-dumping allows governments to act against dumping where there is genuine (material) injury to the competing domestic industry. A product is considered to be dumped if

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- The export price is less than the price charged for the same product in the exporting country, or
- It is sold for less than its cost of production

In order to do that, the government has to be able to show that dumping is taking place, calculate the extent of dumping (how much lower the export price is compared to the exporter's home market price), and show that dumping is causing injury or threatening to do so. Typically, anti-dumping action means charging extra import duty on the particular product from the particular exporting country in order to bring its price closer to the 'normal value' or to remove the injury to domestic industry in the importing country.

There are many ways of calculating whether a particular product is being dumped heavily or only lightly. The agreement narrows down the range of possible options. It provides three methods to calculate a product's 'normal value'. The main method is based on the price in the exporter's domestic market. When this cannot be used, two alternatives are available—the price charged by the exporter in another country, or a calculation based on the combination of the exporter's production costs, other expenses, and normal profit margins. And the agreement also specifies how a fair comparison can be made between the export price and what would be a normal price.

Anti-dumping measures can only be applied if dumping is hurting the industry in the importing country. Therefore, a detailed investigation has to be conducted according to specified rules first. The investigation must evaluate all relevant economic factors that have a bearing on the state of the industry in question. If the investigation shows dumping is taking place and domestic industry is being hurt, the exporting company can undertake to raise its price to an agreed level in order to avoid anti-dumping import duty.

Detailed procedures are set out on how anti-dumping cases are to be initiated, how the investigations are to be conducted, and on conditions for ensuring that all interested parties are given an opportunity to present evidence. Anti-dumping measures must expire five years after the date of imposition, unless an investigation shows that ending the measure would lead to injury.

Anti-dumping investigations are to end immediately in cases where the authorities determine that the margin of dumping is insignificantly small (defined as less than 2 per cent of the export price of the product.) Besides, the investigations also have to end if the volume of dumped imports is negligible, i.e., if the volume from one country is less than 3 per cent of total imports of that product, although investigations can proceed if several countries, each supplying less than 3 per cent of the imports, together account for 7 per cent or more of total imports.

Member countries are required to inform the committee on anti-dumping practices about all preliminary and final anti-dumping actions, promptly and in detail. When differences arise, members may consult each other and use the WTO's dispute settlement procedure.

India has been the leading user of anti-dumping measures in the world (Fig.2) followed by the US, the European Community, Argentina, South Africa, Australia, Canada, Brazil, China, and Turkey.

Emergency Protection from Imports

A WTO member may restrict import of a product temporarily (take 'safeguard' actions) if its domestic industry is seriously injured or threatened with injury caused by a surge in imports. Safeguard measures were always available under GATT (Article 19); however, they were infrequently used. A number of countries preferred to protect their domestic industries through 'grey area' measures—using bilateral negotiations outside GATT's auspices. They also persuaded exporting countries to restrain exports 'voluntarily' or to agree to other means of sharing markets. Agreements of this kind were reached at for a wide range of products among countries, e.g., automobiles, steel, and semiconductors.

The WTO agreements on safeguards prohibit 'grey-area' measures, and it set time limits (a sunset clause) on all safeguard actions. The agreement says members must not seek, take, or maintain any Voluntary Export Restraints (VERs), Orderly Marketing Arrangements (OMAs), or any other similar measure on the export or the import side. The bilateral measures that were not modified to conform with the agreement were phased out at the end of 1998. Countries were allowed to keep one of these measures an extra year (until the end of 1999), but only the European Union—for restrictions on imports of cars from Japan—made use of this provision.

Notes

Industries or companies may request safeguard action by their governments. The WTO agreement sets out requirements for safeguard investigations by national authorities. The emphasis is on transparency and on following established rules and practices, thus avoiding arbitrary methods. A safeguard measure should be applied only to the extent necessary to prevent or remedy serious injury and to help the industry concerned to adjust. Where quantitative restrictions (quotas) are imposed, they normally should not reduce the quantities of imports below the annual average for the last three representative years for which statistics are available, unless clear justification is given that a different level is necessary to prevent or remedy serious injury.

In principle, safeguard measures cannot be targeted at imports from a particular country. A safeguard measure should not last more than four years, although this can be extended up to eight years under special circumstances. When a country restricts imports in order to safeguard its domestic producers, in principle it must give something in return. To some extent developing countries' exports are shielded from safeguard actions. An importing country can only apply a safeguard measure to a product from a developing country if the developing country is supplying more than 3 per cent of the imports of that product, or if developing country members with less than 3 per cent import share collectively account for more than 9 per cent of total imports of the product concerned.

The WTO's Safeguards Committee oversees the operations of the agreement and is responsible for the surveillance of members' commitment. Member governments have to report each phase of a safeguard investigation and related decision making, and the committee review these reports.

Attempting to Reduce Non-tariff Barriers

In addition to import tariffs, an international firm faces a number of bureaucratic and legal issues in the target countries which hinders smooth flow of trade. Such barriers are generally employed to block market entry and often criticized as arbitrary as they lack transparency. Growing use of unconventional Non-Tariff Measures (NTMs), such as health and safety measures, technical regulations, environmental controls, customs valuation procedures, and labour laws by developed countries has become a major barrier to market access to exports from developing countries. Such trade barriers are considerably stiffer for products with lower value addition and technological content (agriculture products, textiles, leather products, etc.) products, which are of major interest to countries like India.

Import licensing procedures

Import licensing procedures are generally considered as complex and non-transparent with little predictability and had often been used to block market entry of foreign products. The agreement on Import Licensing Procedures attempts to simplify and bring transparency to import procedures. The agreement requires governments to publish sufficient information for international traders to know how and why licences are granted. It also describes how countries should notify the WTO when they introduce new import licensing procedures or change existing procedures. The agreement offers guidance on how governments should assess applications for licences. The agreement sets criteria for automatic issuance of some licences so that the procedures used do not restrict trade. Here, the agreement tries to minimize the importers' burden in applying for licences, so that the administrative work does not in itself restrict or distort imports. The agreement says agencies handling licensing should not normally take more than 30 days to deal with an application. However, 60 days are permitted when all applications are considered at the same time.

Customs valuation

For importers, the process of estimating the value of a product at customs presents problems that can be just as serious as the actual duty rate charged. The WTO agreement on customs valuation aims for a fair, uniform, and neutral system for the valuation of goods for customs purposes—a system that conforms to commercial realities, and which outlaws the use of arbitrary or fictitious customs values. The agreement provides a set of valuation rules, expanding and giving greater precision to the provisions on customs valuation in the original GATT.

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The agreement recognizes that the prices obtained by different importers for the same product may vary. The mere fact that the price obtained by a particular importer is lower than that at which other importers have imported the product, cannot be used as a ground for rejecting the transaction value. Customs can reject the transaction value in such situations only if it has reasons to doubt the truth or accuracy of the declared price of the imported goods. Even in such cases it has to give importers an opportunity to justify their price and if this justification is not accepted, customs has to provide importers in writing the reasons for rejecting the transaction value and for determining the dutiable value by using other methods. Further, by providing importers the right to be consulted throughout all stages of the determination of value, the agreement ensures that the discretion available to customs for scrutinizing declared value is used objectively.

The agreement also requires national legislation on the valuation of goods to prove the following rights to importers :

- Right to withdraw imported goods from customs, when there is likely to be a delay in the determination of customs value, by providing sufficient quantities, in the form of surety or a deposit, covering the payment of customs duties for which goods may be liable
- Right to expect that any information of a confidential nature that is made available to customs shall be treated as confidential
- Right to appeal, without fear of penalty, to an independent body within the customs administration and to judicial authority against decisions taken by customs



Notes

The basic aim of the agreement is to protect the interests of firms engaged in international trade by requiring that customs should accept the price actually paid by the importer in the particular transaction for determining dutiable value. This applies to both arms-length and related-party transactions.

Pre-shipment inspection

Pre-shipment inspection is the practice of employing specialized private companies (or 'independent entities') to check shipment details—essentially price, quantity, and quality—of goods ordered overseas. The basic purpose of pre-shipment inspection is to safeguard national financial interests (preventing capital flight, commercial fraud, and customs duty evasion, for instance) and to compensate for inadequacies in administrative infrastructures.

The Pre-shipment Inspection Agreement places obligations on governments which use pre-shipment inspection. Such obligations include non-discrimination, transparency, protection of confidential business information, avoiding unreasonable delay, the use of specific guidelines for conducting price verification, and avoiding conflicts of interest by the inspection agencies. The obligations of exporting members towards countries using pre-shipment inspection include non-discrimination in the application of domestic laws and regulations, prompt publication of those laws and regulations, and wherever requested, the provision of technical assistance.

The agreement establishes an independent review procedure administered jointly by the International Federation of Inspection Agencies (IFIA), representing inspection agencies, and the International Chamber of Commerce (ICC), representing exporters. Its purpose is to resolve disputes between an exporter and an inspection agency.

Rules of origin

'Rules of origin' are used as the criteria to define where a product was made. They are an essential part of trade rules because a number of policies, such as quotas, preferential tariffs, anti-dumping actions, countervailing duty (charged to counter export subsidies), etc., discriminate between exporting countries. Rules of origin are also used to compile trade statistics, and for 'made in...' labels that are

attached to products. This is complicated by globalization and the way a product can be processed in several countries before it is ready for the market.

The Rules of Origin Agreement requires WTO members to ensure that their rules of origin are transparent; that they do not have restricting, distorting, or disruptive effects on international trade. The Rules are administered in a consistent, uniform, impartial, and reasonable manner. For the longer term, the agreement aims for common (harmonized) rules of origin among all WTO members, except in some kinds of preferential trade, e.g., countries setting up a free trade area are allowed to use different rules of origin for products traded under their free trade agreement.

Agreement on Trade Related Investment Measures

When investment is the mode of international business expansion, the host governments often impose conditions on foreign investors to encourage investments in accordance with certain national priorities. The Agreement on Trade Related Investment Measures (TRIMs) recognizes that certain measures can restrict and distort investment. It stipulates that no member shall apply any measure that discriminates against foreigners or foreign products (i.e., violates 'national treatment' principles in GATT). It also outlaws investment measures that lead to restrictions in quantities (violating another principle in GATT) and measures requiring particular levels of local procurement by an enterprise ('local content requirements'). It also discourages measures which limit a company's imports or set targets for the company to export ('trade balancing requirements').

However, countries are not prevented from imposing export performance requirements as a condition for investment. They are also not prohibited from insisting that a certain percentage of equity should be held by local investors or that a foreign investor must bring in the most up-to-date technology or must conduct a specific level or type of R&D locally. Under the agreement, countries must inform fellow-members through the WTO of all investment measures that do not conform to the agreement.

Plurilateral Agreements

All WTO agreements except four agreements, originally negotiated under the Tokyo Round became multilateral agreements. The four exceptions are known as plurilateral agreements as they had a limited number of signatories.

Fair trade in civil aircraft

The Agreement on Trade in Civil Aircraft entered into force on 1 January 1980 which presently has 30 signatories. The agreement eliminates import duties on all aircrafts other than military aircrafts, and their parts and components. The agreement also contains disciplines on government-directed procurement of civil aircraft and inducements to purchase, as well as on governmental financial support for the civil aircraft sector.

Opening up of competition in government procurement

In most countries, the government and its agencies together are the biggest purchasers of goods of all kinds, ranging from basic commodities to high-technology equipment. At the same time, the political pressure to favour domestic suppliers over their foreign competitors can be very strong. It poses considerable barriers to international marketing firms in these countries.

An Agreement on Government Procurement was first negotiated during the Tokyo Round and entered into force on 1 January 1981 with a view to open up as much of this business as possible to international competition. The agreement was designed to make laws, regulations, procedures, and practices regarding government procurement more transparent and to ensure that they do not protect domestic products or suppliers, or discriminate against foreign products or suppliers. A large part of the general rules and obligations concern tendering procedures.

The Agreement on Government Procurement under the WTO became effective on 1 January 1996 and extends coverage to services (including construction services), procurement at the sub-central level (e.g., states, provinces, departments, and prefectures), and procurement by public utilities. It also reinforces rules guaranteeing fair and non-discriminatory conditions of international competition.

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For instance, governments are required to put in place domestic procedures by which aggrieved private bidders can challenge procurement decisions and obtain redress in the event such decisions were made inconsistently with the rules of the agreement. The agreement applies to contracts worth more than specified threshold values.

The International Dairy Agreement and International Bovine Meat Agreement, the two plurilateral agreements, were scrapped at the end of 1997. Countries that had signed the agreements decided that the sectors were better handled under the Agriculture and Sanitary and Phytosanitary agreements.

Ensuring Transparency in Trade Policy

An international marketing firm needs to know as much as possible the conditions of trade in the target market. The Trade Policy Review Mechanism (TPRM) aims to achieve transparency in regulations in the following ways :

- (a) Governments have to inform the WTO and fellow-members of specific measures, policies, or laws through regular 'notifications'.
- (b) The WTO conducts regular reviews of individual countries' trade policies, i.e., trade policy reviews.

The objectives of trade policy review are :

- To increase the transparency and understanding of countries' trade policies and practices, through regular monitoring
- To improve the quality of public and inter-governmental debate on the issues
- To enable a multilateral assessment of the effects of policies on the world trading system

The reviews focus on members' own trade policies and practices. But they also take into account countries' wider economic and developmental needs, their policies and objectives, and the external economic environment that they face. These 'peer reviews' by other WTO members encourage governments to follow more closely the WTO rules and disciplines and to fulfil their commitments. These reviews enable outsiders to understand a country's policies and circumstances, and they provide feedback to the reviewed country on its performance in the system.

Over a period of time, all WTO members were to come under scrutiny. The frequency of the reviews depends on the country's size.

- The four biggest traders—the European Union, the US, Japan, and Canada (the 'Quad')—are examined approximately once every two years.
- The next 16 countries (in terms of their share of world trade) are reviewed every four years.
- The remaining countries are reviewed every six years, with the possibility of a longer interim period for the least developed countries.

For each review, two documents are prepared—a policy statement by the government under review, and a detailed report written independently by the WTO Secretariat. These two reports, together with the proceedings of the Trade Policy Review Body's meetings are published; these publications which may be consulted while making strategic business decisions.

24.4 Ministerial Conferences and Emerging Issues

The highest decision-making body in the WTO is the Ministerial Conference (MC) that has to take place once in two years. Six ministerial conferences have taken place so far and have generated a lot of debate and controversies across the world, as discussed here.

Singapore Ministerial Conference

The first MC took place at Singapore during 9–13 December 1996 and reviewed the operations post-WTO. Major developed countries brought in proposals to start negotiations in some new areas, such as investment, competition policy, government procurement, trade facilitation, and labour standards. This evoked a lot of controversy. Significant pressure was built up by the developed countries for all members to accept their proposals; this was strongly opposed by developing nations. However, an agreement was finally reached to set up working groups to study the process of the relationship between investment and trade, competition and trade, and transparency in government procurement.

These are generally termed as Singapore issues. The subject of trade facilitation was to be studied in the Council for Trade in Goods.

Conclusion of Information Technology Agreement was an important decision made during the Singapore Ministerial Conference based on the proposal brought by developed countries to have an agreement on zero duty on import of information technology goods.

Geneva Ministerial Conference

The second MC, held at Geneva (Switzerland) during 18–20 May 1998, discussed implementational concerns of developing and least developing countries that led to establishment of a mechanism for evaluation of implementation of individual agreements.

The US-sponsored proposals for zero duty on electronic commerce were discussed and an agreement was reached to maintain status-quo on the market access conditions for electronic commerce for 18 months. The agreement on status-quo actually meant that there would be zero duty on e-commerce since no country had been imposing duty on this mode of trade. A declaration on global electronic commerce was also adopted.

Electronic commerce was defined as the mode of commerce in which all operations of trade would be conducted through the electronic medium; these operations include placing the order, supplying the product, and making the payment. They also include sale and transfer of goods through electronic medium, such as music and cinematographic products, architectural and machine drawings and designs, etc. However, the sale in which goods are physically transferred to the buyer would not be considered e-commerce.

Seattle Ministerial Conference

The third MC, held in Seattle (US) from 30 November to 3 December 1999, witnessed dramatic changes in negotiations as the developing countries made intense preparations for the conference unlike in the previous MCs wherein issues brought in by the developed countries were chiefly discussed. In Seattle too developed countries tried to push forward new issues, such as investment, competition policy, government procurement, trade facilitation, and labour standards. However, developing countries insisted upon priority attention to their proposals as these were related to the working of the current agreement, before any new issue could be considered. No agreement on the issues could be arrived at, leading to a total collapse of the MC with a lot of confusion and without any decision.

Doha Ministerial Conference

The fourth MC held during 9–14 November 2001, at Doha in Qatar further built up the divide between the developed and the developing countries in the WTO. On the one hand, developed countries were keen on formally pushing forward a new round of multilateral trade negotiations, which would include the issues of investment, competition policy, transparency in government procurement, and trade facilitation. On the other hand, there was stiff resistance from developing countries to initiating a new round as they felt that they were still in the process of comprehending the implications of the last round, i.e., the Uruguay Round, of multilateral trade negotiations.

Finally a comprehensive work programme was adopted at the end of Doha MC. Although formally it was not called a new round of negotiations, the work programme had all the attributes of a fresh round of multilateral trade negotiations. Members decided to work out modalities for negotiations on the Singapore issues and then start negotiations on the basis of the modality to be agreed by explicit consensus. It was also agreed upon to make Special and Differential (S&D) treatment for developing countries more precise, effective, and operational.

The main commitments of the Doha Declaration were.

- To continue the commitment for establishing a fair and market-oriented trading system through fundamental reform of support and protection of agricultural markets, specifically through
 - Substantial improvements in market access
 - Reductions of all forms of export subsidies, with a view of phasing them out
 - Substantial reductions in trade distorting domestic support

Notes

- To give developing countries Special and Differential Treatment in negotiations to enable them effectively to take into account their development needs
- To ensure negotiations on trade in services aimed at promoting the economic growth of all trading partners and the development of developing and least developed countries
- To reduce or eliminate tariffs and non-tariff barriers in non-agricultural markets, in particular on products of export interest to developing countries
- Doha Development Agenda (DDA) is a 'single undertaking' that means nothing is agreed until everything is agreed.

Cancun Ministerial Conference

The fifth MC was held in Cancun (Mexico) during 10–14 September 2003 under heightened strain between the major developed and developing countries. Developing countries believed that heavy subsidies on production and exports of agriculture in developed countries had been grievously harming their agriculture which is means of livelihood of their major population unlike in developed countries. There was hardly any significant action perceived on the part of the developed countries in the areas of implementation of issues and Special and Differential Treatment. On the other hand, developed countries insisted upon starting the negotiations on the Singapore issues. Under this atmosphere of complete apprehension, anger, and mistrust, no agreement could be reached and the MC terminated without any comprehensive declaration.

The Hong Kong Ministerial Conference

The sixth MC took place in Hong Kong during 13–18 December 2005. It called for conclusions in 2006 of negotiations launched at Doha in 2001 and establishment of targets and time frames in specific areas. The key outcomes of the Hong Kong Ministerial Conference included

- Amendment to TRIPS agreement reaffirmed to address public health concerns of developing countries.
- Duty free, quota free market access for all LDC products by all developed countries.
- Resolved complete Doha work programme and finalized negotiations in 2006.
- Elimination of export subsidies in cotton by developed countries in 2006; reduction of trade distorting domestic subsidies more ambitiously and over a shorter period.
- Elimination of export subsidies in agriculture by 2013 with substantial part in the first half of the implementation period. Developing countries, such as India will continue to have right to provide marketing and transport subsidies on agricultural exports for five years after the end date for elimination of all forms of export subsidies.
- The agreement that the three heaviest subsidizers, i.e., the European Union, the US, and Japan, were to attract the highest cut in their trade distortion domestic support. Developing countries like India with no Aggregate Measurement of Support (AMS) will be exempt from any cut on *de minimis* (entitlement to provide subsidies annually on product-specific as well as non-product specific basis each up to 10 per cent of the agricultural production value) as well as on overall levels of domestic trade distortion support (consists of the AMS, the Blue Box, and *de minimis*).
- Establishment of modalities in agriculture and Non-Agriculture Market Access (NAMA).
- The agreement that developing countries were to have flexibility to self-designate appropriate number of tariff lines as special products. In order to address situations of surge in imports and fall in international prices, both import quantity and price triggers have been agreed under the Special Safeguard Mechanism for developing countries.
- The agreement that in NAMA and Special and Differential Treatment (S&DT), elements such as flexibility and less-than-full reciprocity in reduction commitments for developing countries reassured.
- No sub-categorization of developing countries when addressing concerns of small, vulnerable economies.

Notes

Subsequently, at the General Council meeting held at Geneva on 31 July 2006, an agreement was reached on the framework in order to conduct the negotiations. Preliminary agreements were reached on broad approaches, especially in the areas of agriculture and industrial tariffs. It was decided to drop the three Singapore issues on investment, competition policy, and government procurement whereas negotiations on trade facilitation were to follow.

The Deadlock In WTO Negotiations

Despite intensive negotiations, deadlines were missed and negotiations across all areas of the Doha work programme were suspended mainly due to lack of convergence on major issues in agriculture and NAMA in July 2006. Agriculture remains the most contentious issue in the recent Ministerial Conferences, widening the developed-developing country divide. Major developed countries continue to give high amount of subsidies to their farmers. Interestingly, developed countries have fulfilled their obligation of reduction in reducible subsidy in technical terms despite increasing the absolute amount of subsidy. Besides, the EU and the US continue to give export subsidies as well. Ironically, developed countries are pressurising developing countries to reduce their tariffs substantially. This poses a threat to the domestic farming sector of developing countries, which has got serious socio-economic and political implications. This makes negotiations in agriculture extremely complex. Developed countries, on the other hand, are keen on market access for their industrial products.

Self-Assessment

1. Choose the correct options:

- (i) The sixth WTO ministerial conference was held in _____ from 13 December - 18 December 2005.
 - (a) Macau
 - (b) Hong Kong
 - (c) United States
 - (d) Philippines
- (ii) Designated name for the _____ (commonly known as Taiwan)
 - (a) Vietnam
 - (b) Philippines
 - (c) People's Republic of China
 - (d) Republic of China
- (iii) Which of the following languages is spoken in World Trade Organization?
 - (a) Sardinian language
 - (b) Spanish language
 - (c) Italian language
 - (d) Venetian language
- (iv) What is the leader of World Trade Organization called?
 - (a) Governor General of Tuvalu
 - (b) Malaysian general election, 2008
 - (c) List of Secretaries General of ASEAN

24.5 Summary

- The World Trade Organization (WTO) is the only international organization that deals with global rules of trade between nations. It provides a framework for conduct of international trade in goods and services. It lays down the rights and obligations of governments in the set of multilateral agreements discussed later in this chapter. In addition to goods and services, it also covers a wide range of issues related to international trade, such as protection of intellectual property rights and dispute settlement, and prescribes disciplines for governments in formulation of rules, procedures, and practices in these areas. Moreover, it also imposes discipline at the firm level in certain areas, such as export pricing at unusually low prices.
- WTO also covers areas of interest to international business firms, such as customs valuation, pre-shipment inspection services, and import licensing procedures, wherein the emphasis has been laid on transparency of the procedures so as to restrain their use as non-tariff barriers. The agreements also stipulate rights of exporters and domestic procedures to initiate actions against dumping of foreign goods. An international business manager needs to develop a thorough

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understanding of the new opportunities and challenges of the multilateral trading system under the WTO.

- Formally all of these councils and committees consist of the full membership of the WTO. But that does not mean they are the same, or that the distinctions are purely bureaucratic. In practice, the people participating in the various councils and committees are different because different levels of seniority and different areas of expertise are needed. Heads of missions in Geneva (usually ambassadors) normally represent their countries at the General Council level. Some of the committees can be highly specialized and sometimes governments send expert officials from their countries to participate in these meetings. Even at the level of the Goods, Services, and TRIPS councils, many delegations assign different officials to cover different meetings. All WTO members may participate in all councils, etc., except the Appellate Body, dispute settlement panels, textile monitoring body, and plurilateral committees.
- The WTO is sometimes described as a 'free trade' institution, but that is not entirely accurate. The system does allow tariffs and, in limited circumstances, other forms of protection. More accurately, it is a system of rules dedicated to open, fair, and undistorted competition.
- The WTO agreements cover two basic areas—goods and services in addition to intellectual property. The agreements for goods under GATT deal with the following sector-specific issues, such as agriculture, health regulations for farm products (SPS), textiles and clothing, product standards, investment measures, anti-dumping measures, customs valuation methods, pre-shipment inspection, rules of origin, import licensing, subsidies and counter-measures, and safeguards.

24.6 Key-Words

1. GATT : General Agreement on Tariffs and Trade, an international treaty (1948-94) to promote trade and economic development by reducing.
2. WTO : The World Trade Organization (WTO) deals with the global rules of trade between nations. Its main function is to ensure that trade flows as smoothly, predictably and freely as possible.

24.7 Review Questions

1. What is multilateralism? Discuss.
2. What are the functions of WTO? Discuss.
3. Discuss the principles of the Multilateral trading system.

Answers: Self-Assessment

1. (i) (b) (ii) (d) (iii) (b) (iv) (d)

24.8 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 25 : International Monetary System

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Objectives

After reading this Unit students will be able to:

- Know the Meaning of International Monetary System.
- Discuss the Bretton Woods System.
- Explain the Present International Monetary System.

Introduction

The period 1870-1914, is considered as the classical gold standard period. The centre of world trade and finance was London, and the major currencies led by the British sterling were convertible into gold at given parities. There was no major currency crisis during this period and no major currency had to be devalued or revalued. International trade and finance proceeded smoothly; goods and factors moved across national frontiers with great degree of freedom. Trade restrictions, not altogether unknown, were not generally used for purposes of the balance of payments adjustments. Deficits and surpluses were to be corrected by internal deflation and inflation.

International liquidity consisted of gold, and British sterling played the role of a reserve currency during this period. Sterling constituted an important component of international liquidity, and sterling was widely used in the settlements of balance of payments obligations. The period was characterised by relatively stable exchange rates. This was the nature of the world monetary system on the eve of World War I. If the success of the international monetary system is judged by (a) the facility for unrestricted trade in goods and services, (b) adequate amount of international liquidity, and (c) relatively fixed exchange rates, the period of 1870-1914 may be considered as the successful period of the world monetary system, World war I ended all this.

The inter-war period was characterized by international monetary and exchange rate chaos. The gold standard was abandoned; trade and tariff restrictions came into prominence; exchange rates were no longer stable, competitive exchange rate changes and beggar-my-neighbour policies became the order of the day. A need was felt to put an end to all this and build, instead, a system of international monetary arrangements in which countries could follow policies directed towards full employment and stable prices without creating problems for others.

The Bretton Woods System rested on two pillars : the maintenance of stable exchange rates and multilateral credit mechanism institutionalized in the IMF. In order that exchange rate changes are conducted in an orderly manner, the authors of the Bretton Woods Agreement insisted on the IMF approval for exchange rate changes beyond 10 per cent. The Fund would permit changes beyond 10 per cent only if it was satisfied that a 'fundamental disequilibrium' existed in the member country's balance of payments. The second pillar of the system was the arrangement for international liquidity.

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There was to be a pool of member countries' currencies, contributed on the basis of the quota system fixed for the member countries, which would enable the Fund to act as a 'lender of last resort'.

The Bretton Woods System never worked, the way its authors had intended. More specifically, the threat to the Bretton Woods System arose out of two changes : (a) the expanded role of the US dollar as international currency and a widely accepted asset, and (b) the exchange rate rigidity that developed over time. Let us briefly explain these two problem spots.

At the end of World War II the United States held more than three-fourths of the world's stock of monetary gold, and accounted for half of the world's GMP. For these reasons, the US dollar came to be regarded as international money. Countries of the world began to hold their official reserves in the form of US dollars. The US dollar was not only as good as gold, it was in fact better than gold because dollar holding (as reserves) earned interest while gold did not. The US balance of payments deficits after 1958 kept the entire world monetary system liquid. The steady accumulation of US dollars by the foreign countries, especially of Europe, posed a threat to the stability of dollar as an international reserve currency.

The second threat to the stability of the Bretton Woods System was the rigidity of exchange rates that developed in reality. Notwithstanding some exchange rate adjustments during the early 1950s, the world monetary system had, by 1960s, become a disequilibrium system characterized by persistent deficits and surpluses. The Bretton Woods System failed to achieve equilibrium exchange rate stability.

The US dollar build up in the hands of the foreign central banks was the direct result of deep and persistent US payments deficits. Even as early as 1964, the US dollar accumulations held by the foreign countries equalled the total gold holdings of the United States. This excess accumulation of US dollars in foreign countries led to unwillingness of the foreign central banks to hold US dollar as currency reserves. The value of dollar began to depreciate, and the gold price began to shoot up after 1968. In March 1968, the United States and the European countries agreed to establish, at the US request, the so-called Two-tier Gold Market. This measure separated the private gold market from the official gold market in which the central banks bought and sold gold to each other. The price of gold in the private market might rise above US \$35 an ounce, but the central banks continued to deal in gold with each other at the fixed price of US \$35 an ounce. (Since the time the US enacted the Gold Reserve Act of 1934, the US government had undertaken to buy or sell unlimited quantities of gold at a fixed price of US \$35 an ounce). The European countries agreed not to press the United States to convert their US dollar accumulations into gold. The US dollar became virtually inconvertible into gold in 1968.

25.1 Meaning of International Monetary System

International monetary system refers to the system prevailing in world foreign exchange markets through which international trade and capital movements are financed and exchange rates are determined. We discuss below the international monetary system since the end of the World War II.

25.2 The Bretton Woods System



Did u know?

The Bretton Woods System finally collapsed in 1971, and this was caused by the so-called Dollar Crisis of 1971. The dollar crisis stemmed from the US balance of payments deficits.

During the period preceding World War I almost all the major national currencies were on a system of fixed exchange rates under the international gold standard. This system had to be abandoned during World War I. There were fluctuating exchange rates from the end of the War to 1925. Efforts were made to return to the gold standard from 1925. But it collapsed with the coming of the Great Depression. Many countries resorted to protectionism and competitive devaluations—with the result that world trade was reduced to almost half. But depression completely disappeared during World War II.

In July 1944, the allied countries met at Bretton Woods in the USA to avoid the rigidity of the gold standard and the chaos of the 1930s in international trade and finance and to encourage free trade. The new system was the present International Monetary Fund (IMF) which worked out an *adjustable peg system*.

Under the Bretton Woods system exchange rates between countries were set or pegged in terms of gold or the US dollar at \$ 35 per ounce of gold. This related to a fixed exchange rate regime with changes in the exchange within a band or range from 1 per cent above to 1 per cent below the par value. But these adjustments were not available to US which had to maintain the gold value of dollar. If the exchange rate hit either of the bands, the monetary authorities were obliged to buy or sell dollars against their currencies. Large adjustments could be made where there were “fundamental disequilibrium” (i.e. persistent and large deficits or surpluses) in BOP with the approval of the IMF and other countries. Member countries were forbidden to impose restrictions on payments and trade, except for a transitional period. They were allowed to hold foreign reserves partly in gold and partly in dollars. These reserves were meant to incur temporary deficits or surpluses by member countries, while keeping their exchange rates stable. In case of a BOP deficit, there was a *reserve outflow* by selling dollar and *reserve inflow* in case of a BOP surplus.

Reserve outflows were a matter of concern under the Bretton Woods system. So the IMF insisted on expenditure reducing policies and devaluation to correct BOP deficit. Temporary BOP deficits were also met by borrowing from the Fund for a period of 3 to 5 years. A country could borrow from the Fund on the basis of the size of its quota with it. The loans made by the IMF were in convertible currencies.

The first 25 per cent of its quota was in *gold tranche* which was automatic and the remaining under the *credit tranches* which carried high interest rates. To provide long-term loans the World Bank (or IBRD) was set in 1946 and subsequently its two affiliates, the International Finance Corporation (IFC) in 1956 and International Development Association (IDA), in 1960. For the removal of trade restrictions, the *General Agreement on Tariffs and Trade* (GATT) came into force from January 1948. To supplement its resources, the and started borrowing from the ten industrialised countries in order to meet the requirements of the International monetary system under General Agreements to Borrow (GAB) from October 1962. Further, it created Special Drawing Rights (SDRs) in January 1970 to supplement international reserves to meet the liquidity requirements of its members. The Bretton Woods system worked smoothly from 1950s to mid 1960s. During this period world output increased and with the reduction of tariffs under the GATT, world trade also use.

The Breakdown of the Bretton Woods System

The following are the principal causes and sequences of the breakdown of the Bretton Woods system.

1. **Built-in Instability** : The Bretton Woods System had a built-in instability that ultimately led to its breakdown. It was an adjustable peg system within plus or minus 1 per cent of the par value of \$35. In case of fundamental disequilibrium, a country could devalue its currency with the approval of the IMF. But countries were reluctant to devalue their currencies because they had to export more goods in order to pay for dearer imports from other countries. This led countries to rely on deflation in order to cure BOP deficits through expenditure-reducing monetary-fiscal policies. The UK often restored to deflation such as in 1949, 1957 and 1967.
2. **The Triffin Dilemma** : Since the dollar acted as a medium of exchange, a unit of account and a store of value of the IMF system, every country wanted to increase its reserves of dollar which led to dollar holdings to a greater extent than needed. Consequently, the US gold stock continued to decline and the US balance of payments continued to deteriorate. Robert Triffin warned in 1960 that the demand for world liquidity was growing faster than the supply because the incremental supply of gold was increasing little. Since the dollar was convertible into gold, the supply of US dollars would be inadequate in relation to the liquidity needs of countries. This would force the US to abandon its commitment to convert dollars into gold. This is the Triffin Dilemma which actually led to the collapse of the Bretton Woods System in August 1971.
3. **Lack of International Liquidity** : There was a growing lack of international liquidity due to increasing demand for the dollar in world monetary markets. With the expansion of world

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trade, BOP deficits (and surpluses) of countries increased. This necessitated the supply of gold and of the dollar. But the production of gold in Africa was increasing very little. This led to larger demand and holdings of the dollar. Countries also wanted to have more dollar holdings because they earned interest. As the supply of dollars was inadequate in relation to the liquidity needs of countries, the US printed more dollars to pay for its deficits which other countries accepted as reserves.



Did u know? The Bretton Woods System finally collapsed in 1971, and this was caused by the so-called Dollar Crisis of 1971. The dollar crisis stemmed from the US balance of payments deficits.

4. **Mistakes in US Policies :** The BOP deficits of the US became steadily worse in the 1960s. To overcome them, the policies adopted by the US government ultimately led to the world crises. Rising US government expenditure in the Vietnam War, the financing of US space programme and the establishment of the “Great Society” (social welfare) programme in the 1960s led to large outflow of dollar from the US. But the US monetary authority (FED) did not devalue the dollar. Rather, it adopted monetary and fiscal measures to cut its BOP deficit.
5. **Destabilising Speculation :** Since countries with “fundamental disequilibrium” in BOP were reluctant to devalue their currencies and also took time to get the approval of the IMF, it provided speculators an opportunity to resort to speculation in dollars. When devaluations were actually made, there were large doses of devaluation than originally anticipated. This was due to destabilising speculation which made controls over capital flows even through monetary-fiscal measures ineffective. This was the immediate reason for the UK to devalue the pound in 1967.
6. **Crisis of Confidence and Collapse :** The immediate cause of the collapse of the Bretton Woods System was the eruption of a crisis of confidence in the US dollar. The pound had been devalued in November 1967. There was no control over the world gold market with the appearance of a separate price in the open market. The immediate cause for the collapse of the Bretton Woods System was the rumour in March 1971 that the US would devalue the dollar. This led to a huge outflow of capital from the US. On 15 August 1971, the US suspended the conversion of dollars into gold when some small European central banks wanted to convert their dollar reserves into gold at the US. It refused to intervene in the foreign exchange markets to maintain exchange rate stability and imposed a 10% import surcharge. Thus the main cause of breakdown of the Bretton Woods System was the problems of liquidity, adjustment and confidence. The increase in liquidity (international reserves) was in the form of dollars arising from BOP deficits of the US. But as the US was unable to adjust its deficits and excessive dollars accumulated in foreign countries, there was a *crisis of confidence* in the dollar and the Bretton Woods System broke down.

25.3 The Present International Monetary System

At the beginning of March 1973 India, Canada, Japan, Switzerland, the UK and several smaller countries had floating exchange rates. However, the “*joint float*” of the EEC countries continued even after March 1973 and was now called the “*snake in the lake*”, as there was no band within which the EEC currencies could fluctuate relative to other currencies. In March, 1979 the European Monetary System (EMS) was formed which created the European Currency Unit (ECU) which is a “basket” currency of a unit of account consisting of the major European currencies. The EMS limits the internal exchange rate movement of the member countries to not more than 2.25 per cent from the “central rates” with the exception of Italy whose lira can fluctuate up to 6 per cent.

In the meantime, the *Jamaica Agreement* of January 1976 (ratified in April 1978) formalised the regime of floating exchange rates under the auspices of the IMF. A number of factors forced the majority of member countries of the IMF to float their currencies. There were large short-term capital movements and central banks failed to stop speculation in currencies during the regime of adjustable pegs. The

oil crisis in 1973 and the increase in oil prices in 1974 led to the great recession of 1974-75 in the industrial countries of the world. As a result “the dollar went into a rapid decline, which, by late 1978, had such alarming proportions that the United States government finally decided on a policy of massive intervention in order to prevent a further fall in the value of the dollar”. At last, the system of managed floating exchange rates had come to stay by 1978. By the *Second Amendment of the IMF Charter* in 1978, the member countries are not expected to maintain and establish par values with gold or dollar. The Fund has no control over the exchange rate adjustment policies of the member countries. But it exercises international “surveillance” of exchange rate policies of its members.

The Second Amendment has reduced the position of gold in the global monetary system in the following ways by : (a) abolishing the official price of gold; (b) delinking it with the dollar in exchange arrangements; (c) eliminating the obligations of the Fund and its members to transfer or receive gold; and (d) selling a part of Fund’s gold holdings.

The Second Amendment has also made SDRs as the chief reserve assets of the global monetary system whose value is expressed in currencies and not gold. It is now a unit of account, a currency peg and medium of transactions.

The present international monetary system of floating exchange rates is not one of free flexible exchange rates but of “managed floating”. It has rarely operated without government intervention. Periodic intervention by governments has led the system to be called a “managed” or “dirty” floating system. In 1977, when the intervention was very heavy, it was characterised as a “filthy” float. When Governments do not intervene, it is a “clean” float. But the possibilities of a clean float are very remote. Thus a system of managed floating exchange rates is evolving where the central banks are trying to control fluctuations of exchange rates around some “normal” rates even though the Second Amendment of the Fund makes no mention of normal rates.

“The present international monetary system has also evolved in a number of important ways, including new allocation of SDRs, increased nations’ quota in the IMF, renewal of the General Agreements to Borrow (GAB), the abolishment of the official gold price, and the formation of the European Monetary System (EMS) and the Euro Currency.”

The US is the major country which has been influencing the global monetary system. It has permitted the dollar to float in relation to other currencies with occasional interventions when the dollar has reached extreme highs or lows. When the dollar was extremely high (appreciating), the G-5 (US, UK, Germany, Japan and France) agreed to intervene to bring the dollar down by the *Plaza Accord* in September 1985. Subsequently, the dollar depreciated substantially i.e. by more than 50% relative to the yen. By early 1987, the dollar had become undervalued and by the *Louvre Accord*, the G-7 countries (G-5 plus Canada and Italy) agreed to cooperate in keeping their exchange rates around their current levels at that time. “The Louvre Accord was successful in stabilising exchange rates for the rest of the year. Since then there seems to have been a consensus that exchange rates should be broadly stabilised, but there is little overt cooperation *among countries.*”

Its Problems

The present international monetary system is faced with excessive fluctuations and large disequilibria in exchange rates. Often countries, both developed and developing, have been faced with either excessive appreciation or depreciation of their currencies in relation to the dollar which continues to dominate the world monetary system. Even the newly created Euro of the EU which was supposed to be a strong currency has been depreciating considerably since its inception against the dollar. This has adversely affected the world trade.

Reform of the Present International Monetary System

Economists have suggested a number of measures in order to avoid the excessive fluctuations and large disequilibria in exchange rates for reforming the present world monetary system.

1. **Coordination and Cooperation of Policies** : A few economists, and McKinnon in particular, suggested international co-operation and co-ordination of policies among the leading developed

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countries for exchange rate stability. According to McKinnon, the US, Germany and Japan should have the optimal degree of exchange rate stability by fixing the exchange rates among their currencies at the equilibrium level based on the purchasing power parity. Thus they would co-ordinate their monetary policies for exchange rate stability.

2. **Establishing Target Zones** : Williamson called for the establishment of target zones within which fluctuations in exchange rates of major currencies may be permitted. According to him, the forces of demand and supply should determine the equilibrium exchange rate. There should be an upper target zone of 10% above the equilibrium rate and a lower target zone of 10% below the equilibrium exchange rate. The exchange rate should not be allowed to move outside the two target zones by official intervention. In February 1987, the leading five developed countries agreed under the Louvre Agreement to have some sort of target zones for the stability of exchange rates among their currencies. Despite official intervention by these countries, the exchange rates continued to fluctuate within wide margins than agreed upon at Louvre. Thus Williamson's proposal has since been discarded being impracticable.
3. **Improving Global Liquidity** : The reform package of the present world monetary system should improve global liquidity. As a *first* step, both BOP deficit and surplus countries should take steps to reduce a persistent imbalance through exchange rate changes via internal policy measures. *Second*, they should also cooperate in curbing large flows of "hot money" that destabilise their currencies. *Third*, they should be willing to settle their BOP imbalances through SDRs rather than through gold or dollar as reserve assets. *Fourth*, there should be increasing flow of resources to the developing countries.
4. **Leaning Against the Wind** : To reduce the fluctuations in exchange rates, the IMF *Guidelines for the Management of Floating Exchange Rates*, 1974 suggested the idea of leaning against the wind. It means that the central banks should intervene to reduce short-term fluctuations in exchange rates but leave the long-term fluctuations to be adjusted by the market forces.
5. Richard Cooper suggests a global central bank with a global currency which should be a global lender of last resort.
6. Jaffrey Sachs proposes the creation of an international bankruptcy court which should deal with countries.
7. George Soros opines that the IMF should set ceilings for external finance for each country beyond which access to private capital need not be insured. But there should be mandatory insurance by an international credit insurance corporation.
8. Paul Krugman suggests reintroduction of capital controls as a "least bad response" to an international crisis.
9. **Objective Indicators** : To iron out exchange rate fluctuations, the IMF Interim Committee suggested the adoption of such objective indicators as inflation-unemployment, growth of money supply, growth of GNP, fiscal balance, balance of trade and international reserves. The variations in these indicators require the adoption of restrictive monetary-fiscal measures to bring stability in exchange rates.

Self-Assessment**1. Choose the correct options:**

- (i) Which of the following could result from a current account surplus that is too large?
 - (a) Capital flight
 - (b) Excessive investment expenditure.
 - (c) Excessive consumption expenditure.
 - (d) Difficulties for domestic creditors in collecting their money.
 - (e) Excessive foreign debt.

- (ii) Which of the following could result from a current account deficit that is too large?
- Excessive net outflows of financial assets.
 - Investment expenditure that is too low.
 - Difficulties for domestic creditors in collecting their money.
 - Government spending that is too low.
 - Growing foreign debt.
- (iii) An expenditure switching policy
- could have been caused by devaluations or revaluations under the Bretton Woods system.
 - causes people to switch from saving to spending, thereby allowing the economy to grow.
 - is unable to restore an external balance and an internal balance at the same time.
 - alters the level of aggregate expenditure.
 - will not affect the current account balance.
- (iv) The price-specie-flow mechanism
- restores external balances through movements of gold, silver or other international forms of money.
 - is the practice of selling domestic assets to prevent a current account deficit.
 - was established in 1900 under the gold standard.
 - is a commitment by central banks to exchange currency for gold.
 - Was first described by Adam Smith in 1776.
- (v) Which of the following helped to end the gold standard in the 1930s?
- An increase in the volume of international trade.
 - Rapid increases in production that led to deflation with a limited quantity of gold.
 - Beggar-thy-neighbor trade policies.
 - Discoveries of gold that led to worldwide inflation.
 - An insufficient world supply of gold.

25.4 Summary

- International liquidity, as distinguished from developmental capital, is a sum of official foreign reserves held by the individual countries of the world and the IMF. International liquidity is a concept related to the balance of payments but not economic development of the countries. There will, however, be an indirect connexion between international liquidity and economic development, since the latter is closely related to the balance of payments position of the countries, particularly of the underdeveloped countries of the so-called Third World.
- A certain level of international liquidity is necessary in order to keep the international trade and monetary transactions running smoothly. A shortage of international liquidity hampers international trade expansion, and an excess supply of international liquidity would cause world monetary expansion and global inflationary upsurge. Today's world is characterized by inadequacy of international liquidity rather than excess.
- International liquidity problem can be solved by international arrangements for augmenting international reserves like gold and reserve assets including the SDRs. This has its own limits usually associated with supply constraints. The only durable solution to international liquidity problem particularly of the Third World countries facing monumental balance of payments deficits, lies in the willingness of the surplus countries of the advanced world to take policy measures to reduce their balance of payments surpluses. This will make the world less protectionist as well.
- The period, 1870-1914, was one of international gold standard, relatively free trade and factor movements, and of stable exchange rates. The inter-war period was characterized by

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international monetary and exchange rates, international cooperation and trade and tariff negotiations 1971 marked the end of the fixed exchange rate regime when the Bretton Woods System collapsed. Today we are living in a world of flexible exchange rates. The SDRs are gradually replacing gold, the US dollar and other reserve assets as a scale of valuation of international reserves and exchange rates. The Bretton Woods System no longer exists, and no new system has been created to replace it.

- The IMF is still the main source of international liquidity, and the SDRs constitute a new source of international liquidity, similar to the discovery of new gold mines.

25.5 Key-Words

1. Monetary System : medium of exchange: anything that is generally accepted as a standard of value and a measure of wealth in a particular country or region
2. Bretton Wood System : The Bretton Woods system of monetary management established the rules for commercial and financial relations among the world's major industrial states in the mid-20th century. The Bretton Woods system was the first example of a fully negotiated monetary order intended to govern monetary relations among independent nation-states.

25.6 Review Questions

1. What do you mean by monetary system? Discuss international monetary system.
2. Write a short note on Bretton Wood System.
3. What are the causes of the breakdown of Bretton Wood System? Discuss.

Answers: Self-Assessment

1. (i) (d) (ii) (e) (iii) (a) (iv) (a) (iv) (c)

25.7 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 26 : East Asian Crisis and Lessons for Developing Countries

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Objectives

After reading this Unit students will be able to:

- Describe the Asian Financial Crisis.
- Explain the Lessons of Developing Country.

Introduction

As it turned out, in 1997 Asian economies did indeed experience a severe financial crisis. And with the benefit of hindsight, several weaknesses in their economic structures—some shared by Latin American countries that had gone through crises—became apparent. Three issues in particular stood out :

1. **Productivity** : Although the rapid growth of East Asian economies was not in any sense an illusion, even before the crisis a number of studies had suggested that some limits to expansion were appearing. The most surprising result of several studies was that the bulk of Asian output growth could be explained simply by the rapid growth of production *inputs*—capital and labor—and that there had been relatively little increase in productivity, that is, in output per unit of input. Thus in South Korea, for example, the convergence toward advanced-country output per capita appeared to be mainly due to a rapid shift of workers from agriculture to industry, a rise in educational levels, and a massive increase in the capital-labor ratio within the nonagricultural sector. Evidence for a narrowing of the technological gap with the West was unexpectedly hard to find. The implication of these studies' conclusions was that continuing high rates of capital accumulation would eventually produce diminishing returns, and, possibly, that the large financial inflows taking place were not justified by future profitability after all.
2. **Banking regulation** : Of more immediate relevance to the crisis was the poor state of banking regulation in most Asian economies. Domestic depositors and foreign investors regarded Asian banks as safe, not only because of the strength of the economies, but because they believed that governments would stand behind the banks in case of any difficulties. But banks and other financial institutions were not subject to effective government supervision over the kinds of risks they were undertaking. As the experience in Latin America should have made clear, moral hazard was present in spades. Despite this, several of the East Asian countries had eased private access to financial inflows in the 1990s, and foreign money was readily available both to East Asian banks and directly to East Asian corporate borrowers. Because of original sin, foreign debts were fixed in foreign-currency terms.

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In several Asian countries, close ties between business interests and government officials appear to have helped foster considerable moral hazard in lending. In Thailand, so-called finance companies, often run by relatives of government officials, lent money to highly speculative real estate ventures; in Indonesia, lenders were far too eager to finance ventures by members of the president's family. These factors help to explain how, despite high saving rates, East Asian countries were led to invest so much that their current accounts were in deficit prior to the crisis.

Some analysts have suggested that excessive lending, driven by moral hazard, helped create an unsustainable boom in Asian economies, especially in real estate, that temporarily concealed the poor quality of many of the investments; and that the inevitable end of this boom caused a downward spiral of declining prices and failing banks. However, while moral hazard was certainly a factor in the runup to crisis, its importance remains a subject of considerable dispute.

3. **Legal framework :** One important weakness of Asian economies only became apparent after they stumbled : the lack of a good legal framework for dealing with companies in trouble. In the United States, there is a well-established procedure for bankruptcy—that is, for dealing with a company that cannot pay its debts. In such a procedure, the courts take possession of the firm on behalf of the creditors, then seek to find a way to satisfy their claims as well as possible. Often this means keeping the company in existence and converting the debts it cannot pay into ownership shares. In Asian economies, however, bankruptcy law was weak, in part because the astonishing growth of the economies had made corporate failures a rare event. When times did turn bad, a destructive impasse developed. Troubled companies would simply stop paying their debts. They then could not operate effectively because nobody would lend to them until the outstanding debts were repaid. Yet the creditors lacked any way to seize the limping enterprises from their original owners.

Of course, every economy has weaknesses, but the performance of the East Asian economies had been so spectacular that few paid much attention to theirs. Even those who were aware that the “miracle” economies had problems could hardly have anticipated the catastrophe that overtook them in 1997.

26.1 The Asian Financial Crisis

The Asian financial crisis is generally considered to have started on July 2, 1997, with the devaluation of the Thai baht. Thailand had been showing signs of financial strain for more than a year. During 1996 it became apparent that far too many office towers had been built; first the nation's real estate market, then its stock market, went into decline. In the first half of 1997 speculation about a possible devaluation of the baht led to an accelerating loss of foreign exchange reserves, and on July 2 the country attempted a controlled 15 percent devaluation. As in the case of Mexico in 1994, however, the attempted moderate devaluation spun out of control, sparking massive speculation and a far deeper plunge.



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Thailand itself is a small economy. However, the sharp drop in the Thai currency was followed by speculation against the currencies first of its immediate neighbor Malaysia, then of Indonesia, and eventually of the much larger and more developed economy of South Korea.

All of these economies seemed to speculators to share with Thailand the weaknesses previously listed; all were feeling the effects in 1997 of renewed economic slowdown in their largest industrial neighbor, Japan. In each case, governments were faced with awkward dilemmas, stemming partly from the dependence of their economies on trade, partly from the fact that domestic banks and

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companies had large debts denominated in dollars. If the countries simply allowed their currencies to drop, rising import prices would threaten to produce dangerous inflation, and the sudden increase in the domestic-currency value of debts might push many potentially viable banks and companies into bankruptcy. On the other hand, to defend the currencies would require at least temporary high interest rates to persuade investors to keep their money in the country, and these high interest rates would themselves produce an economic slump and cause banks to fail.

All of the afflicted countries except Malaysia turned to the IMF for assistance and received loans in return for implementation of economic plans that were supposed to contain the damage : higher interest rates to limit the exchange rate depreciation, efforts to avoid large budget deficits, and “structural” reforms that were supposed to deal with the weaknesses that had brought on the crisis in the first place. Despite the IMF’s aid, however, the result of the currency crisis was a sharp economic downturn. All of the troubled countries went from growth rates in excess of 6 percent in 1996 to a severe contraction in 1998.

Worst of all was the case of Indonesia, where economic crisis and political instability reinforced each other in a deadly spiral, all made much worse by a collapse of confidence by domestic residents in the nation’s banks. By the summer of 1998 the Indonesian rupiah had lost 85 percent of its original value, and few if any major companies were solvent. The Indonesian population was faced with mass unemployment and, in some cases, with inability to afford even basic foodstuffs. Ethnic violence broke out.

As a consequence of the collapse of confidence, the troubled Asian economies were also forced into a dramatic reversal of their current account positions : They moved abruptly from sometimes large deficits to huge surpluses. Most of this reversal came not through increased exports but through a huge drop in imports, as the economies contracted.

Currencies stabilized throughout crisis-stricken Asia and interest rates decreased, but the direct spillover from the region’s slump caused slowdowns or recessions in several neighboring countries, including Hong Kong, Singapore, and New Zealand. Japan and even parts of Europe and Latin America were feeling the effects. Most governments continued to take IMF-prescribed medicine, but in September 1998 Malaysia—which had never accepted an IMF program—broke ranks and imposed extensive controls on capital movements, hoping that the controls would allow it to ease monetary and fiscal policy without sending its currency into a tailspin. China and Taiwan, which maintained capital controls and had current account surpluses over the pre-crisis period, went largely unscathed in the crisis.

Fortunately, the downturn in East Asia was “V-shaped” : After the sharp output contraction in 1998, growth returned in 1999 as depreciated currencies spurred higher exports. Not all of the region’s economies fared equally well, and controversy remains over the effectiveness of Malaysia’s experiment with capital controls. In general, investment rates have remained depressed and current accounts have remained in surplus, sometimes substantially so.

Spillover to Russia

Asia’s woes sparked a general flight by investors from emerging markets, putting severe pressure on the economic policies of distant developing nations. Russia was affected soon after.

Starting in 1989, the countries of the Soviet bloc, and ultimately the Soviet Union itself, shook off communist rule and embarked on transitions from centrally planned economic allocation to the market. These transitions were traumatic, involving rapid inflation, steep output declines, and a phenomenon that had been largely unknown in planned economies—unemployment. Such beginnings were inevitable. In most of the formerly communist countries nearly the entire economy had to be privatized. Financial markets and banking practices were largely unknown, there was no legal framework for private economic relations or corporate governance, and initial property rights were ambiguous. States lacked the modern fiscal machinery through which industrial countries design and collect taxes, and given the cautious attitude of foreign investors and the absence of domestic capital markets, the monetary printing press was the only way to finance needed social expenditures.

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By the end of the 1990s, a handful of East European economies including Poland, Hungary, and the Czech Republic had made successful transitions to the capitalist order. Not surprisingly each of these countries was geographically close to the EU and had a recent tradition (prior to Soviet occupation in the late 1940s) of industrial capitalism, including a body of contract and property law. Many of the other successor states that emerged from the wreckage of the Soviet Union were still faring quite badly even as the 20th century ended. The largest was Russia, which retained much of the nuclear weaponry left by the Soviet Union.

Over the course of the 1990s, Russia's weak government was unable to collect taxes or even to enforce basic laws; the country was riddled with corruption and organized crime. It is no wonder that measured output shrank steadily and that inflation was hard to control, so that at the end of the 1990s most Russians were substantially worse off than under the old Soviet regime. In 1997, the government managed to stabilize the ruble and reduce inflation with the help of IMF credits, and the economy even managed to eke out a (barely) positive GDP growth rate that year. However, the government had slowed inflation by substituting borrowing for seigniorage; neither the government's attempts to collect taxes or reduce spending were very successful, and the state debt therefore had ballooned. When, in addition, the prices of oil and other key Russian commodity exports were depressed by the crisis in Asia, investors began to fear in the spring of 1998 that the ruble, like many of the Asian currencies the year before, was in for a steep devaluation. Interest rates on government borrowing rose, inflating Russia's fiscal deficit.

Despite Russia's failure to abide by earlier IMF stabilization programs, the Fund nonetheless entered into a new agreement with its government and provided billions to back up the ruble's exchange rate. The IMF feared that a Russian collapse could lead to renewed turbulence in the developing world, as well as posing a nuclear threat if Russia decided to sell off its arsenal. In mid-August 1998, however, the Russian government abandoned its exchange rate target; at the same time as it devalued, it defaulted on its debts and froze international payments. The government resumed printing money to pay its bills and within a month the ruble had lost half its value. Despite Russia's rather small direct relevance to the wealth of international investors, its actions set off panic in the world capital market as investors tried to increase their liquidity by selling emerging market securities. In response, the U.S. Federal Reserve lowered dollar interest rates sharply, possibly averting a worldwide financial collapse. Russia's output recovered in 1999 and growth was rapid afterward, helped by higher world oil prices.

26.2 Lessons of Developing Country Crises

The emerging market crisis that started with Thailand's 1997 devaluation produced what might be called an orgy of finger-pointing. Some Westerners blamed the crisis on the policies of the Asians themselves, especially the "crony capitalism" under which businesspeople and politicians had excessively cozy relationships. Some Asian leaders, in turn, blamed the crisis on the machinations of Western financiers; even Hong Kong, normally a bastion of free market sentiment, began intervening to block what it described as a conspiracy by speculators to drive down its stock market and undermine its currency. And almost everyone criticized the IMF, although some said it was wrong to tell countries to try to limit the depreciation of their currencies, others that it was wrong to allow the currencies to depreciate at all.

Nonetheless some very clear lessons emerge from a careful study of the Asian crisis and earlier developing-country crises in Latin America and elsewhere.

1. **Choosing the right exchange rate regime** : It is perilous for a developing country to fix its exchange rate unless it has the means and commitment to do so, come what may. East Asian countries found that confidence in official exchange rate targets encouraged borrowing in foreign currencies. When devaluation occurred nonetheless, much of the financial sector and many corporations became insolvent as a result of extensive foreign-currency denominated debts. The developing countries that have successfully stabilized inflation have adopted more flexible

exchange rate systems or moved to greater flexibility quickly after an initial period of pegging aimed at reducing inflation expectations. When they have not done this, they have tended to experience real appreciations and current account deficits that leave them vulnerable to speculative attack. Even in Argentina, where the public's fear of returning to the hyperinflationary past instilled a widely shared determination to prevent inflation, a fixed exchange rate proved untenable over the long term.

2. **The central importance of banking :** A large part of what made the Asian crisis so devastating was that it was not purely a currency crisis, but rather a currency crisis inextricably mixed with a banking and financial crisis. In the most immediate sense, governments were faced with the conflict between restricting the money supply to support the currency and the need to print large quantities of money to deal with bank runs. More broadly, the collapse of many banks disrupted the economy by cutting off channels of credit, making it difficult for even profitable companies to continue business. This should not have come as a surprise in Asia. Similar effects of banking fragility played roles in the crises of Argentina, Chile, and Uruguay in the 1980s and of Mexico in 1994-1995, and even in those of industrial countries like Sweden during the 1992 attacks on the EMS. Unfortunately, Asia's spectacular economic performance prior to its crisis blinded people to its financial vulnerabilities. In the future, wise governments will devote a great deal of attention to shoring up their banking systems to minimize moral hazard, in the hope of becoming less vulnerable to financial catastrophes.
3. **The proper sequence of reform measures :** Economic reformers in developing countries have learned the hard way that the order in which liberalization measures are taken really does matter. That truth also follows from basic economic theory : The principle of the *second best* tells us that when an economy suffers from multiple distortions, the removal of only a few may make matters worse, not better. Developing countries generally suffer from many, many distortions, so the point is especially important for them. Consider the sequencing of financial account liberalization and financial sector reform, for example. It is clearly a mistake to open up the financial account before sound safeguards and supervision are in place for domestic financial institutions. Otherwise, the ability to borrow abroad will simply encourage reckless lending by domestic banks. When the economy slows down, foreign capital will flee, leaving domestic banks insolvent. Thus, developing countries should delay opening the financial account until the domestic financial system is strong enough to withstand the sometimes violent ebb and flow of world capital. Economists also argue that trade liberalization should precede financial account liberalization. Financial account liberalization may cause real exchange rate volatility and impede the movement of factors of production from nontraded into traded goods industries.
4. **The importance of contagion :** A final lesson of developing country experience is the vulnerability of even seemingly healthy economies to crises of confidence generated by events elsewhere in the world—a domino effect that has come to be known as **contagion**. Contagion was at work when the crisis in Thailand, a small economy in Southeast Asia, provoked another crisis in South Korea, a much larger economy some 7,000 miles away. An even more spectacular example emerged in August 1998, when a plunge in the Russian ruble sparked massive speculation against Brazil's real. The problem of contagion, and the concern that even the most careful economic management may not offer full immunity, has become central to the discussion of possible reforms of the international financial system, to which we now turn.



Mexico's experience since 1995 shows that larger developing countries can manage quite well with a floating exchange rate, and it is hard to believe that, if Mexico had been fixing, it would have survived the Asian crisis repercussions of 1998 without a currency crisis of its own.

Notes

Self-Assessment

1. Choose the correct options:

- (i) The Asian financial crisis is generally considered to have started on July 2
 - (a) 1988
 - (b) 1997
 - (c) 1999
 - (d) 1990
- (ii) By the end of 1990s, a handful of East European economies including-----had made successful transitions to the capitalist order.
 - (a) Poland
 - (b) Hungary
 - (c) Czech Republic
 - (d) All of these

26.3 Summary

- The most surprising result of several studies was that the bulk of Asian output growth could be explained simply by the rapid growth of production *inputs*—capital and labor—and that there had been relatively little increase in productivity, that is, in output per unit of input. Thus in South Korea, for example, the convergence toward advanced-country output per capita appeared to be mainly due to a rapid shift of workers from agriculture to industry, a rise in educational levels, and a massive increase in the capital-labor ratio within the nonagricultural sector. Evidence for a narrowing of the technological gap with the West was unexpectedly hard to find.
- In Asian economies, however, bankruptcy law was weak, in part because the astonishing growth of the economies had made corporate failures a rare event. When times did turn bad, a destructive impasse developed. Troubled companies would simply stop paying their debts. They then could not operate effectively because nobody would lend to them until the outstanding debts were repaid. Yet the creditors lacked any way to seize the limping enterprises from their original owners.
- The Asian financial crisis is generally considered to have started on July 2, 1997, with the devaluation of the Thai baht. Thailand had been showing signs of financial strain for more than a year. During 1996 it became apparent that far too many office towers had been built; first the nation's real estate market, then its stock market, went into decline. In the first half of 1997 speculation about a possible devaluation of the baht led to an accelerating loss of foreign exchange reserves, and on July 2 the country attempted a controlled 15 percent devaluation.
- Asia's woes sparked a general flight by investors from emerging markets, putting severe pressure on the economic policies of distant developing nations. Russia was affected soon after.
- The emerging market crisis that started with Thailand's 1997 devaluation produced what might be called an orgy of finger-pointing. Some Westerners blamed the crisis on the policies of the Asians themselves, especially the "crony capitalism" under which businesspeople and politicians had excessively cozy relationships. Some Asian leaders, in turn, blamed the crisis on the machinations of Western financiers; even Hong Kong, normally a bastion of free market sentiment, began intervening to block what it described as a conspiracy by speculators to drive down its stock market and undermine its currency.

26.4 Key-Words

- 1. Financial crisis : The term financial crisis is applied broadly to a variety of situations in which some financial assets suddenly lose a large part of their nominal value. In the 19th and early 20th centuries, many financial crises were associated with banking panics, and many recessions coincided with these panics. Other situations that are often called financial crises include stock market crashes and the bursting of other financial bubbles, currency crises, and sovereign defaults.

2. Reform measures : Reform means the improvement or amendment of what is wrong, corrupt, unsatisfactory, etc. The use of the word in this way emerges in the late 1700's and is believed to originate from Christopher Wyvill's Association movement which identified "Parliamentary Reform" as its primary aim.

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Reform is generally distinguished from revolution. The latter means basic or radical change; whereas reform may be no more than fine tuning, or at most redressing serious wrongs without altering the fundamentals of the system. Reform seeks to improve the system as it stands, never to overthrow it wholesale. Radicals on the other hand, seek to improve the system, but try to overthrow whether it be the government or a group of people themselves.

26.5 Review Questions

1. Discuss the Asian Financial crisis. What were the main issues for this crisis?
2. Briefly explain the developing country crises.

Answers: Self-Assessment

1. (i) (b) (ii) (d)

26.6 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 27: FDI : Types and Issues

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Objectives

After reading this Unit students will be able to:

- Explain the Types of FDI.
- Discuss the Issues of FDI.

Introduction

Foreign direct investment (FDI) has grown dramatically as a major form of international capital transfer over the past decade. Between 1980 and 1990, world flows of FDI—defined as cross-border expenditures to acquire or expand corporate control of productive assets—have approximately tripled. FDI has become a major form of net international borrowing for Japan and the United States (the world's largest international lender and borrower, respectively). Direct investment has grown even more rapidly of late within Europe.

To what extent is this sudden worldwide surge in FDI explained by traditional theories ? These theories predict the scale and scope of multinational enterprises by looking to differences in competitive advantage, across firms or countries, that might lead to the extension of corporate control across borders. So, for example, better technology, management capability, and product design; stronger consumer allegiance; and greater complementarities in production or use of technology can allow a domestic firm to control foreign assets more productively than would a foreign firm and could therefore predicate direct investment. In many cases, these theories also explain why an enterprise's alternatives to FDI—domestically based production or licensing of foreign-based production—are less efficient than direct control of foreign-based operations.

Traditional theories are very useful for explaining basic long-term patterns of FDI. For example, they help understand the behavior of U.S. firms during the post-World War II period (the experience on which these theories were honed). At that time, advanced U.S. firms were superior in technology and well established in foreign markets. U.S. firms tended to move overseas to retain competitive access (or to preempt competitors' access) to those markets and, in the process, met with relatively little competition.

These theories also help us understand why the tide of U.S. FDI flows has slowly turned. The evolution of the United States from a home for domestically based multinationals to a host for foreign-based multinationals is probably the single most obvious sign of change in FDI today. This development basically coincides with the waning (and even disappearance) of U.S. firms' former competitive advantages. It is obvious to today's consumer that European-, Japanese, and Canadian-based firms have developed advantages that allow them to control certain assets in the United States more efficiently than would U.S.-based firms.

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In spite of their successes, however, the traditional theories leave many recent features of FDI unexplained. First, it is hard to believe that the tide of underlying competitive advantage followed closely (or at all) the behavior of total FDI flows over the last decade : very rapid increases from 1979 through 1981, strong declines from 1982 through 1985, and then increases of unprecedented size from 1986 through 1990. One would have expected changes in national competitive advantages to be reflected in more steady trends. Second, to the extent that any developments happen quickly, one might have expected that they would occur in a single industry at a time—say, the automobile producers of Japan—as shocks to competitive ability come to be reflected in world ownership patterns. Yet the surges of the past fifteen years take place across virtually all industries simultaneously.

The recent FDI surges in U.S. inflows and Japanese outflows illustrate these two features. Japanese FDI overall, which historically was small, exploded across all industries in the latest surge, experiencing in the aggregate a seven-fold increase from 1985 to 1989. During this surge, both U.S. inflows and Japanese outflows were particularly large and fast-growing in real estate and financial services. In these industries, however, there was little evidence of meaningful change in competitive advantage. Particularly puzzling is the case of Japanese banks, which during the latest surge went on a much-publicized binge in acquiring foreign affiliates. Many of the involved banks were actually noted for their apparently inefficient operations and low profitability in comparison with U.S. and European companies. These facts suggest that existing theories do a good job of explaining neither the timing or magnitude of surges nor their broad cross-industry composition.

27.1 Types of FDI

FDI flows into an economy through many mediums, and the type of flow determines its multiplier effects on an economy. This chapter discusses the categorisation of FDI into five broad types, viz. export-oriented investment, market-development investment, government-initiated investment, acquisition investment and greenfield investment, and the motivation for such investments in an economy.

Export-oriented Investment

Export-oriented investment is described by Reuber as the type of investment that reflects a wide range of considerations such as the desire to develop secondary and more diversified sources of supply by way of obtaining lower-cost products to be used either as inputs or for sale elsewhere.

Firms serving established markets at home or internationally frequently seek new sources of inputs, including raw materials, components and parts, as well as finished products. This reflects a wide range of considerations, such as the desire to develop secondary and more diversified sources of supply and the possibility of obtaining lower-cost products. Examples of this type of investment are found in the raw materials sector. Generally, such foreign investors are mainly interested in extracting products from the host country and selling them abroad through established market channels. In making such investments, firms sometimes also create a supporting infrastructure such as housing, hospitals and schools. This investment focuses on the needs of a particular market which is largely or entirely outside the host country.

The World Investment Report advocates that this type of investment is made with the intention of the investor to improve its competitive position at home or internationally by taking advantage of the lower cost of production that host countries offer, where lower cost is indicated by some of the following, amongst others : incentives from the host country, abundance of skilled and semi-skilled labour with concurrent relatively lower wages, and political and monetary stability. With this type of investment, investors attach little significance to host countries' markets. The major factors with regard to the determination of the location of the investments are cost, as explained above, and the reliability of production.

This investment is geared towards the production of component parts. After production, the components are normally exported to a central location or to a country other than the host country for assembly into finished goods, confirming the fact that this investment is made with the object of taking advantage of the lower-cost environment in a host country.

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Export-oriented investment tends to be highly profitable even in the short term. The investing company's control over the market and the rapid depreciation of its investment is made possible by high cash throw-off and is sometimes enhanced by technological obsolescence. If competitive conditions become less favourable in the host country relative to somewhere else then the firm can move its investment quite quickly. Moreover, because of this high mobility, countries can easily find themselves competing with each other in making concessions to such investors in order to make their investment platforms more attractive, which in turn reduces the risk of this type of investment and hence an advantage to both the host country and the investor.

Reuber states that this type of investment is less commonly found producing final products for sale directly to consumers abroad. One may speculate on a variety of reasons for this, such as the difference in comparative advantage associated with different parts of the production process, handling and transportation costs, the reluctance of investors to assume the risk of relying entirely on any country for the production of a full product line, and the advantages from the standpoint of sale and the service of having final assembly take place in the major markets where the product is sold, as in most cases the host country's markets are more oriented to raw materials.

There are many ways by which export-oriented FDI can help to enhance a host country's manufacturing and export competitiveness. In order to attract this type of investment and to ensure that the investment translates into development gains, a host country needs to find the most effective ways of making the choice of locations as well as the target segments conducive to the kind of export activities the host country aims to foster. In today's rapidly globalising world, successful exporting needs not only competitive products, but also marketing expertise and access to international markets. Giving greater access to export-oriented FDI can provide major benefits to the host country in this respect, especially in markets in which established brand names and large distribution networks are important assets. This type of investment can also be an effective means of providing resources such as skills, training, technology, capital goods and intermediate inputs needed to exploit a country's existing comparative advantages.

The most prominent role played by this type of FDI in the exports of developing countries is in the manufacturing sector. In this sector, foreign affiliates tend to be leaders in export-oriented investment and in marketing. The impact of foreign affiliates on the domestic entities' export activities can be both direct and indirect. Direct effects occur when exporting foreign affiliates establish backward linkages with local firms which then become indirect exporters. Indirect effects of the presence of export-oriented foreign affiliates occur when local firms manage to copy the operations of foreign affiliates, employ staff of foreign affiliates, and benefit from improvements in infrastructure and reduction in trade barriers undertaken in response to demand by the host country for foreign operations/investors.

Market-development Investment

Unlike the export-oriented type of FDI, the objective of making a market-initiated type of FDI is to sell the final output in the host country's market. However, a common feature of both types is that they thrive on feasibility of reduction in production cost. Another key consideration by the investor is the potential growth in the size of the host country's market in the long term. Although in the short to medium term the investment may not yield the expected return, if the long-term view is that the host country's market will grow in size and hence become profitable, the investment may then be undertaken. The growth in the host country's market is, however, dependant on the general economic outlook of the host country and hence the macroeconomic variables and the effectiveness of the economic reform policies, other policy directives like tariffs, trade controls, taxes, subsidies and so forth, as well as various regulations imposed on foreign investors by the host country, become fundamental to the decision to invest.

The policies referred to in the previous paragraph are for the most part general in scope. They apply to foreign investment generally or to broad sectors of the economy rather than to particular projects or industries. Moreover, many of these policies confer the same advantage on domestic industries. The initiative to undertake such investment is taken by the investor and although the incentives provided by the host country frequently have some influence on the decisions made, investors may

view many of these incentives as uncertain over time and marginal in importance by comparison with long-term market considerations.

Market-development investment is marked by many uncertainties of the most central kind from a business standpoint : How quickly will a market develop ? Can the firm speed up the market-development process ? What share of the market can the firm capture ? Owing to these and other uncertainties regarding product acceptance and market development, many manufacturing firms are likely to prefer to explore the market initially by exporting. As the market develops and investors' knowledge and confidence grow, and they become more familiar with the risk involved, they may expand gradually into assembly activities.

This type of investment may be illustrated by the following examples, as reported in Reuber. A major manufacturer of tractors approached the Brazilian market by exporting initially and working directly with Brazil to establish a strong local distribution network. This required extensive training of Brazilian distributors, not only in how to sell tractors but also in how to use, service and repair them. In many cases certain business practices were also transferred, such as inventory control for parts and record keeping for internal control purposes. The Brazilian distributors were allowed to make attractive margins in return for their inputs. The distribution system added more value to the host country than did the company's eventual manufacturing activities. Furthermore, after the firm had developed a large-enough market to begin the integrated manufacture of tractors in Brazil, the distribution network proved effective in handling imported combines and other farm equipment as well. The firm's next step was to develop the integrated manufacture of combines in Brazil, and the gradual diversification of the product range is expected to continue into the future.

A second example in Reuber relates to a major US chemical company which bought out the only local plastics manufacturer in a small Latin American country and operated on a reasonably profitable basis. The American firm was not very interested in the modest return available from the existing firm, but was interested in the potential returns after market development and the related infusion of technology. Their long-term objective was to create a technologically advanced self-contained plastics industry in the host country as they knew that the existing manufacturer was operating with old technology and that the inferior quality of the output limited the number of possible end users. Furthermore, the size of the market as it stood was less than half that required to justify building the new facilities using new technology needed to bring about market growth. The American firm's strategy in the light of these conditions was three-fold :

(i) to develop the country's market potential; (ii) to export more sophisticated products from other countries to the host country; and (iii) to build a new plant with advanced modern technology in the host country after the market had developed to a sufficient level. An important feature of such a strategy is that it is very long term in its conception. This strategy also looks more creative and will benefit both the investor and host country.

Market-development FDI takes many different forms. A major aluminium company began its operations in India by selling aluminium pans and utensils door to door. Over time this led to fabricating activities, bauxite mining and smelting within India, thus forming a well-integrated local industry. The key feature to be noted in this process is that the building of production facilities followed the development of demand, and that the development of demand was a risky and time-consuming activity requiring extensive transfers of managerial and technological skills.

With this type of investment, host countries have considerable bargaining power in their relationship with the investors seeking to establish a foothold in their domestic markets.

As the economy expands, new investors are attracted, creating some competition among investors for available market opportunities. In these circumstances, it may be possible not only to reduce any concessions that may have been extended to foreign investors initially but also to insist on certain concessions from these investors relating to such matters as local ownership, local content in products and reinvestment without interfering significantly with the inflow of investment.

Notes**Government-initiated Investment**

In comparison with the export-oriented and market-development types of FDI, government-initiated type of FDI occurs through the provision of substantial incentive structures to investors by a host country's government. These are accepted by investors whereas market as well as cost conditions may have precluded them from investing in the host country under normal or "no-incentive" circumstances. For example, in South Africa the incentive takes the following forms : relaxed foreign exchange controls, tax concessions to investors who partake in national development projects such as Coega in Port Elizabeth, indirect subsidies through the provision of specific infrastructural requirements by investors, ease of repatriation of investments and many other kinds of government support services.

To protect the host country and also to make the option of providing incentives to foreign investors efficient, such incentives are directed at specific projects or industries. Additionally, incentives are given by host country governments in order to attract foreign investors to either less-developed regions or regions which require improvement in certain sectors. For example in South Africa, it is understood that the Industrial Development Corporation of South Africa has allocated investment opportunities to each of the nine provinces.

The following illustration from Reuber seems typical of this kind of investment. A country decided that the time had come to displace imports of synthetic rubber with those produced locally. The country was short of hard currency and lacked the technological skills to produce competitive products. To overcome these problems, it sought a joint venture arrangement with another country which held only a small share of the host country's market as an exporter to the country. This country considered it worthwhile to supply funds and technology in order to obtain a substantial minority interest in the venture and thereby increase its market share. The participating country continued to maintain its own independent distributors, although subsequently the host country decided to set up its own distributor to handle a portion of the output under a market-sharing arrangement. The plan was to produce specialised grades locally as sales volumes rose to the point where production costs became internationally competitive. The host country, however, pressed for local manufacture much earlier than the participating country felt justified in doing by economic considerations. Import-displacement investment of this kind accelerated the transfer of production and technology but at the cost of considerably higher prices for the domestic economy. This cost was justified by the government on the grounds that it yielded a variety of intangible non-quantifiable external effects, such as the development of local management and technical skills, improved technology and series of beneficial spill-over effects on the local industries.

Host-country governments have historically played an important role in attracting or excluding FDI through subsidies, which is one of the most effective ways of stimulating the flow of FDI. Subsidies take a number of different forms. They serve to reduce the risk premium of locating abroad and so they may directly influence a firm's cost structure. One example of a subsidy which affects the firm's risk premium would be the provision of public education to increase literacy within the country. All firms benefit from a more educated populace. In contrast, a subsidy could be aimed at reducing a particular firm's or industry's costs of providing on-the-job training. A risk-reducing subsidy, such as the provision of social overhead capital, has direct economy-wide benefits while a cost-reducing subsidy benefits a select firm or group of firms.

Given the framework of analysis presented above, a government-sponsored subsidy would have the unequivocal effect of increasing the probability of a firm's move to an investment location. Under the cases presented above, the view by investors is that a subsidy does not in itself reduce or compensate firms for locational risk, but does increase the risk premium for investors, i.e. a subsidy is not seen as a positive factor in a firm's cost structure or the "riskiness of a foreign location" decision making. However, this does not necessarily imply that a subsidy is independent of the firm's profit-maximising level of output.

Notes

As an incentive to FDI, a host government can tailor subsidies to reflect the relative importance of the cost or risk factor in a firm's decision to locate in the host country. Krueger indicates that the objective of this type of investment is generally rooted in the desire of a country to increase employment and output, to encourage certain kinds of activities, to promote regional development within the host country, to improve the balance of payments and to alleviate the scarcity of hard currency. Tyler argues that although such policies do not necessarily imply investment in import-displacing industries, this in fact has been the most common practice in the past.

Government-initiated investment, despite its benefits, inevitably creates a high degree of interdependence between the investor and the host-country government, and an uncertain environment for both parties. Home-country government may also be drawn into the arrangements directly or indirectly. Given that the success of the incentive depends largely on the continuation of the host country's subsidies in various forms, the investor loses much of his bargaining power once the investment is committed. The investor is therefore likely to demand excessively favourable terms at the outset as a condition for making the investment to compensate for the possible erosion of these terms once a commitment is made. The host government for its part tends to be excessively generous in the first instance in the hope of being able to change the terms of its support once investments have been committed. On this basis, the stage is set for relatively difficult relationships to develop between investors and governments. Owing to their interdependence and in order to minimise conflict, investment of this kind tends to give greater emphasis to joint ventures, minority interests for foreign investors and other conditional forms of FDI.

27.2 Issues of FDI

In 2006, the proposed acquisitions of major operations in six major U.S. ports by Dubai Ports World (DP World) and of Unocal by the China National Offshore Oil Corporation (CNOOC) sparked intense concerns among some Members of Congress and generated a debate over what role foreign investment, particularly foreign acquisitions of certain types of firms, plays in U.S. national security. The United States actively promotes the national treatment of foreign investors as an international standard. This open-door policy stands in marked contrast to several provisions of law, various Executive Orders, and extensive efforts aimed at limiting foreign access to the Nation's industrial base, especially in sectors deemed to be critical to the economy or to areas of importance to national security. In addition, some Members of Congress and others are concerned about the extent to which foreign government-owned companies should be allowed access to the Nation's industrial base and technology through foreign direct investment.

This dual role means that globalization, or the spread of economic activity by firms across national borders, has become a prominent feature of the U.S. economy and that through direct investment the U.S. economy has become highly enmeshed with the broader global economy. Foreigners invested \$180 billion in U.S. businesses and real estate in 2006 and invested \$277 billion in 2007, according to data published by the Department of Commerce, as **Figure 27.1** shows. The rise in the value of foreign direct investment includes an upward valuation adjustment of existing investments. According to the United Nation's *World Investment Report*, global foreign direct investment flows increased by 38% in 2006, 29% in 2005, and 27% in 2004, after three years of declining flows.



The United States is unique in that it is the largest foreign direct investor in the world and also the largest recipient of foreign direct investment.

New spending by U.S. firms on businesses and real estate abroad, or U.S. direct investment abroad, rose sharply in 2006 to \$235 billion up from the \$8 billion net in 2005. New investments in 2007 likely exceeded \$330 billion, according to balance of payments data published by the Department of

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Commerce. The drop in U.S. direct investment abroad in 2005 reflects actions by U.S. parent firms to reduce the amount of reinvested earnings going to their foreign affiliates for distribution to the U.S. parent firms in order to take advantage of one-time tax provisions in the American Jobs Creation Act of 2004.

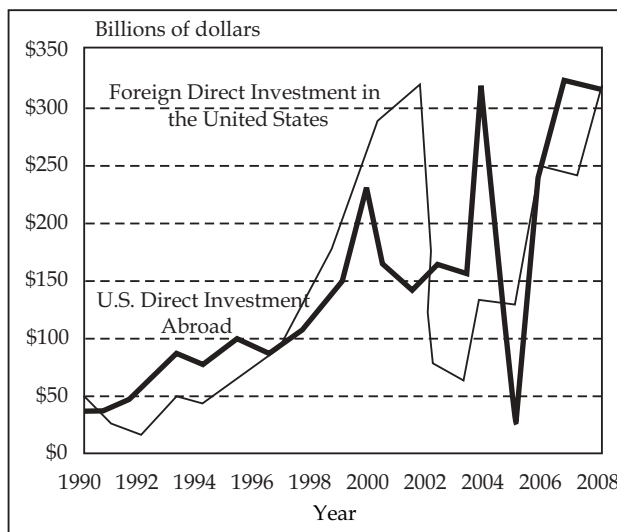


Figure 27.1: Foreign Direct Investment in the United States and the U.S. Direct Investment Abroad, Annual Flows, 1990-2008

Source : CRS from U.S. Department of Commerce data



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The drop in U.S. direct investment abroad in 2005 reflects actions by U.S. parent companies to take advantage of a one-time provision.

The cumulative amount, or stock, of foreign direct investment in the United States on a historical cost basis increased by \$195 billion in 2006 to about \$1.8 trillion. This marks an 8% increase over the previous year and a significant change from the decline in foreign investment spending that has occurred since 2000. The rise in the value of foreign direct investment includes an upward valuation adjustment of existing investments and increased investment spending that was driven by the relatively stronger growth rate of the U.S. economy, the world-wide resurgence in cross-border merger and acquisition activity, and investment in the U.S. manufacturing, information and depository institutions as overseas banks and finance and insurance companies sought access to the profitable U.S. financial market.

U.S. Policy toward Direct Investment

With some exceptions for national security, the United States has long been considered one of the most receptive economies in the world to foreign direct investment. Indeed, over the past 50 years, the United States has led efforts to negotiate internationally for reduced restrictions on foreign direct investment, for greater controls over incentives offered to foreign investors, and for equal treatment under law of foreign and domestic investors. In 1977, the Carter Administration issued a policy statement on foreign direct investment that can be summarized by the neutrality clause : the United States will neither encourage nor discourage the inflow or outflow of international investment. The policy statement also indicated that

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international investment will generally result in the most efficient allocation of economic resources if it is allowed to flow according to market forces; there is no basis for concluding that a general policy of actively promoting or discouraging international investment would further the U. S. national interest; unilateral U. S. Government intervention in the international investment process could prompt counteractions by other governments with adverse effects on the U. S. economy and U. S. foreign policy; and the United States has an important interest in seeking to assure that established investors receive equitable and non-discriminatory treatment from host governments.

This statement is based on an assessment that the free flow of international investment generally will result in the most efficient allocation of economic resources if it is allowed to flow according to market forces. During the Reagan Administration, the neutrality statement was clarified to include three related objectives. These objectives include the liberalization of barriers and the reduction of distortions to international investments abroad, the encouragement of a greater role for private foreign investment in the economic development of less developed countries (LDCs), and the maintenance of the maximum degree of openness of the U.S. economy to the contribution of foreign direct investment.

The Clinton Administration's policy toward inward and outward direct investment can best be characterized by its support for the Multilateral Agreement on Investment (MAI). The Agreement was expected to be a comprehensive international agreement on foreign investment among the most economically developed countries in the world, as represented by the Organization for Economic Cooperation and Development (OECD). In addition, the Agreement was intended to address various issues, including formal barriers to direct investment, discriminatory treatment, dispute settlement mechanisms, and legal and regulatory uncertainties abroad, that hamper the flow of investment funds. Ultimately, a range of unresolved issues among the OECD Ministers combined with concerns by some groups in the United States to undermine support for the Agreement. In particular, some groups were concerned that the requirement for "national treatment" in the Agreement could have created legal problems for state and local governments that enforce environmental, labor, and other corporate practices that could have been considered discriminatory.



Did u know? On May 10, 2007, President Bush released his policy statement on open economies.

The statement offered strong support for the international flow of direct investment. In part, the statement reads:

A free and open international investment regime is vital for a stable and growing economy, both here at home and throughout the world. The threat of global terrorism and other national security challenges have caused the United States and other countries to focus more intently on the national security dimensions of foreign investment. While my Administration will continue to take every necessary step to protect national security, my Administration recognizes that our prosperity and security are founded on our country's openness.

As both the world's largest investor and the world's largest recipient of investment, the United States has a key stake in promoting an open investment regime. The United States unequivocally supports international investment in this country and is equally committed to securing fair, equitable, and nondiscriminatory treatment for U.S. investors abroad. Both inbound and outbound investment benefit our country by stimulating growth, creating jobs, enhancing productivity, and fostering competitiveness that allows our companies and their workers to prosper at home and in international markets. My Administration is committed to ensuring that the United States continues to be the most attractive place in the world to invest. I urge other nations to join us in supporting an open investment policy and protecting international investments.

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In addition to this statement of general support, the Bush Administration issued a policy statement that commits the Administration to four objectives :

- Reinforce the principle that a domestic climate conducive to foreign investment strengthens national security. Meeting the challenges of a post-9/11 world need not require securing one at the expense of the other. The United States recognizes that growing inflows of foreign investment are necessary to expand levels of employment, innovation, and competitiveness in this country. Only those safeguards that are clearly necessary to protect our national security should be maintained.
- Actively target unreasonable and discriminatory barriers to investment. The United States encourages a broad acceptance of the national-treatment principle in all countries and places a premium on the protection of U.S. investments abroad. The United States opposes measures that distort international investment flows, including trade-related or other performance requirements, discriminatory treatment of foreign investment, and expropriation without compensation. In turn, when countries promise to protect investment and eliminate such distortions, investors must have the ability to enforce those binding promises in neutral international settings that are free from the political intervention of governments. Further, countries need to be responsive to the needs of investors for access to innovative cross-border financial services. The United States will continue to allow foreign investors open and fair access to investment opportunities under our statutes and regulations and in accordance with international law, and will continue to welcome investment through programs such as the Invest in America initiative.
- Work with our partners in the WTO to strengthen the rules-based trading system so that it continues to promote open markets, trade reform and new opportunities for development and growth. My Administration is committed to completing the Doha Development Round with an agreement that opens markets for goods and services, ensures reform of agriculture and strengthens WTO rules, including in key areas such as trade facilitation. The predictability, certainty, and transparency of the system enhance opportunities for international investment by building investor confidence.
- Promote an international environment in which international investment can make the greatest contribution to the development process. The United States has initiated the Millennium Challenge Account, which assists developing countries that create and maintain sound policy environments, including governing justly, investing in people, and encouraging economic freedoms. Through our bilateral and multilateral economic assistance programs, the United States will continue to explore ways to increase both public and private capital flows and support international investment in the developing world. As countries continue to adopt free market principles and democratic reforms, international investment is necessary to nurture market-oriented development and reduce debt service burdens. Economic freedom is one of the single greatest antidotes to poverty worldwide, and a positive link exists between the liberalization of investment flows and greater international trade.

Foreign Direct Investment in the U.S. Economy

Foreigners invest in the U.S. economy in a number of ways and for a number of reasons. These investments can be divided roughly into two broad categories, portfolio investments, or investments in corporate stocks and bonds and U.S. government securities, and direct investment, or investments in U.S. businesses and real estate. In 2008, foreigners invested over \$2.0 trillion dollars in the U.S. economy, \$320 billion of which was in direct investment, with the rest of the funds invested in the broader category of portfolio investment. Typically, the Department of the Treasury tracks portfolio investments since a substantial part of these investments is in U.S. Treasury securities. The Treasury Department has shared responsibilities for tracking direct investment with the Department of Commerce, because the Commerce Department's Bureau of Economic Analysis conducts surveys of

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direct investment that provide the basic data on such investments. The Treasury Department, however, takes the lead in negotiating international agreements on the treatment of direct investment and it chairs the inter-agency Committee on Foreign Investment in the United States, which represents the President as the chief federal government organization responsible for overseeing the national security implications of foreign investment in the economy.

The United States is widely recognized as the premier location for foreign firms to invest, as evidenced by the data in Table 1. According to the United Nation's *World Investment Report*, the United States had received a cumulative amount of \$3.1 trillion in foreign direct investment by year-end 2008, more than double the \$1.5 trillion invested in the United Kingdom, the next single largest host to foreign direct investment, and it accounted for nearly 20% of the total cumulative amount of foreign direct investment among all nations. The United States is also the largest foreign investor in the world, with over \$2.3 trillion invested abroad. According to the U.N. report, of the \$12.5 trillion in the total cumulative amount of foreign direct investment among all nations, the most economically advanced developed economies were host to 70% of this amount. From 1980 to 1990, this share increased sharply from 56% of total amount of foreign direct investment to 79%. From 1990 to 1995, the developed country share fell slightly to about 70%, where it has stayed relatively stable over the past decade.

Table 1 : Foreign Direct Investment Inward Position
(in billions of U.S. dollars)

| | 1985 | 1990 | 1995 | 2000 | 2006 | 2008 |
|-----------------------------|---------|-----------|-----------|-----------|------------|------------|
| World | \$972.2 | \$1,789.3 | \$2,992.1 | \$5,810.1 | \$11,998.8 | \$16,205.7 |
| Developed Economies | 569.7 | 1,416.9 | 2,035.8 | 4,031.3 | 8,453.8 | 13,623.6 |
| Western Europe | 285.0 | 815.2 | 1,213.0 | 2,293.8 | 5,717.2 | 8,997.4 |
| European Union | 267.1 | 768.2 | 1,136.0 | 2,180.7 | 5,434.3 | 8,086.8 |
| France | 36.7 | 86.8 | 191.4 | 259.8 | 782.8 | 1,397.0 |
| Germany | 36.9 | 111.2 | 192.9 | 271.6 | 502.4 | 1,450.9 |
| United Kingdom | 64.0 | 203.9 | 199.8 | 438.6 | 1,135.3 | 1,510.6 |
| United States | 184.6 | 394.9 | 535.5 | 1,256.9 | 1,789.1 | 3,162.0 |
| Canada | 64.7 | 112.8 | 123.3 | 212.7 | 385.2 | 520.4 |
| Developing Economies | 402.5 | 370.3 | 916.7 | 1,707.6 | 3,155.9 | 2,356.6 |
| Africa | 33.8 | 58.4 | 77.3 | 153.2 | 315.1 | 98.0 |
| Latin America | 80.1 | 118.1 | 200.1 | 481.0 | 908.6 | 561.4 |
| Asia | 288.5 | 380.2 | 636.5 | 1,073.4 | 1,932.2 | 1,697.3 |

Source : *World Investment Report*, United Nations Council on Trade and Development, various issues.

The Costs and Benefits of Foreign Direct Investment

Generally, economists conclude that direct investment benefits both the home and the host country and that the benefits of such investment outweigh the costs. Some groups within the U.S. economy, however, are concerned about the potentially negative effects of inward and outward direct investment. Most economists argue that free and unimpeded international flows of capital, such as direct investment, positively affect both the domestic (home) and foreign (host) economies. For the home

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country, direct investment abroad benefits individual firms, because firms that invest abroad are better able to exploit their existing competitive advantages and are able to acquire additional skills and advantages. This tends to further enhance the competitive position of these firms both at home and abroad and shifts the composition and distribution of employment within the economy toward the most productive and efficient firms and away from the less productive firms.

Some observers argue that U.S. direct investment abroad supplants U.S. exports, jobs, and research and development funds, thereby reducing employment and wages in the U.S. economy. Others are concerned that outward direct investment alters the industrial composition of domestic production and trade flows, which can affect the sectoral and regional distribution of employment and the relative demand for skilled and unskilled labor. For the home country, overseas investment may lead some firms to shift parts of their production abroad, thereby supplanting some domestic production with imports from abroad, but most studies indicate that, on balance, direct investment abroad increases U.S. exports and helps sustain employment and wages at home. Intra-company trade is a relatively new feature of the U.S. economy, but can be expected to increase as the economy becomes even more globalized. In 2007, U.S. parent companies accounted for more than half of all U.S. exports and more than one-third of U.S. imports.

Furthermore, about half of the exports by U.S. parent companies was to their foreign affiliates. At the same time, the U.S. affiliates of foreign firms accounted for 20% of U.S. exports and 25% of U.S. imports.

Globally, a relatively small share of the production of U.S. foreign affiliates makes its way back into the U.S. economy. In 2007 the foreign affiliates of U.S. multinational firms exported about 10% of their production back to the United States, but two-thirds of their production was sold within the host country and the rest was exported to other foreign countries. Foreign direct investment also supports U.S. exports to areas where formal restrictions to exports exist. In addition, by expanding and supporting development in foreign markets, direct investment spurs improvements in foreign economies, which in turn, creates new markets for U.S. goods. Direct investment also seems to be associated with a strengthened competitive position, a higher level of skills of the employees, and higher incomes of firms that invest abroad.

As a host country, the United States benefits from inward direct investment because the investment adds permanently to the Nation's capital stock and skill set. Direct investment also brings technological advances, since firms that invest abroad generally possess advanced technology, processes, and other economic advantages. Such investment also boosts capital formation, contributes to a growth in a competitive business environment and to productivity. In addition, direct investment contributes to international trade and integration into the global trading community, since most firms that invest abroad are established multinational firms.

On the cost side, critics of foreign investment argue that some U.S. firms may invest abroad, and thereby shift some resources from activities within the United States, in order to take advantage of abundant natural resources, low-cost labor, or relaxed environmental and labor laws. Indeed, about one-third of U.S. direct investment abroad is in developing countries, where economic conditions are markedly different from those in the United States or in many parts of Europe. In some cases, firms that invest abroad may shift production from the United States to a foreign location from which it might export back to the United States products that it previously had produced in the United States, but this does not seem to be a major activity of the foreign affiliates of U.S. firms. Such offshoring of production, or globalization, has grown over the last decade as many developing economies have dropped formal restrictions on foreign investment, but much of this investment seems to be geared toward producing for the local market, or for exports to neighboring countries.

The data in Table 2 show the extent and influence of U. S. and foreign multinational firms in the U.S. economy. In 2007, the latest year for which comprehensive data are available, foreign firms had a total of nearly 11,000 affiliates operating in the United States. These affiliates were present in every State and in every economic activity, where such activity is not prohibited by law.

Table 2 : Select Data on U.S. Multinational Companies and on Foreign Firms**Notes****Operating in the United States, 2007**

(in millions of dollars unless otherwise indicated)

| | U.S. Multinational Companies | | U.S. Affiliates of Foreign Firms |
|------------------------|------------------------------|--------------------|----------------------------------|
| | Parent Companies | Foreign affiliates | |
| Number of firms | 2,270 | 26,342 | 10,941 |
| Employment (thousands) | 22,003.1 | 11,737.5 | 3,397.4 |
| Employee compensation | \$1,392,180 | \$475,595 | \$433,065 |
| Gross product | \$2,588,811 | \$1,117,585 | \$657,558 |
| Total assets | \$19,964,935 | \$14,201,291 | \$12,732,967 |
| Sales | \$8,614,733 | \$5,517,143 | \$3,553,593 |
| Taxes | \$257,292 | \$179,922 | \$57,731 |
| R&D Expenditures | N.A. | \$35,019 | \$44,158 |

Source : U.S. Direct Investment Abroad : Operations of U.S. Parent Companies and Their Foreign Affiliates, Preliminary 2007 Estimates; and Foreign Direct Investment in the United States: Operations of U.S. Affiliates of Foreign Companies, Preliminary 2007 Estimates. Bureau of Economic Analysis, 2009.

Foreign firms employed 3.4 million U.S. workers and paid \$433 billion in wages and compensation. In 2007, 40% of the foreign firms' employment was in the manufacturing sector, more than twice the share of manufacturing employment in the U.S. economy as a whole. By comparison, U.S. multinational companies employed over 22 million workers in the U.S. economy and the foreign affiliates of these U.S. parent companies employed nearly 12 million workers in nearly 30 thousand firms abroad. The foreign affiliates of U.S. firms had 60% more in the value of their gross product than the affiliates of foreign firms operating in the United States, had a greater value of assets, higher sales, and paid three times as much in taxes.

The affiliates of foreign firms spent \$205 billion in the United States in 2007 on new plant and equipment, imported \$550 billion in goods and services and exported \$228 billion in goods and services. Since 1980, the total amount of foreign direct investment in the economy has increased eight-fold and nearly doubled as a share of U.S. gross domestic product (GDP) from 3.4% to 6.4%. It is important to note, however, that these data do not imply anything in particular about the role foreign direct investment has played in the rate of growth of U.S. GDP.

Foreign-owned establishments, on average, have far outperformed their U.S.-owned counterparts. Although foreign-owned firms account for less than 4% of all U.S. manufacturing establishments, they have had 14% more value added on average and 15% higher value of shipments than other manufacturers. The average plant size for foreign-owned firms is much larger—five times—than for U.S. firms, on average, in similar industries. This difference in plant size apparently rises from an absence of small plants among those that are foreign-owned. As a result of the larger plant scale and newer plant age, foreign-owned firms have paid wages on average that were 14% higher than all U.S. manufacturing firms, had 40% higher productivity per worker, and 50% greater output per worker than the average of comparable U.S.-owned manufacturing plants. Foreign-owned firms also display higher capital intensity in a larger number of industries than all U.S. establishments.

Differences between foreign-owned firms and all U.S. firms should be viewed with some caution. First, the two groups of firms are not strictly comparable : the group of foreign-owned firms comprises a subset of all foreign firms, which includes primarily very large firms; the group of U.S. firms includes all firms, spanning a broader range of sizes. Secondly, the differences reflect a range of additional factors, including the prospect that foreign firms which invest in the United States likely are large firms with proven technologies or techniques they have successfully transferred to the United States. Small foreign ventures, experimenting with unproven technologies, are unlikely to want the added

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risk of investing overseas. Foreign investors also tend to opt for larger scale and higher capital-intensity plants than the average U.S. firm to offset the risks inherent in investing abroad and to generate higher profits to make it economical to manage an operation far removed from the parent firm.

Most economists conclude that foreign investment benefits the host economy because such investment adds permanently to the capital stock of the economy and increases the total amount of capital in the economy. While these conclusions seem generally to be true, they probably should be tempered somewhat relative to foreign direct investment in the United States. The data in Table 3 show the inflows and outflows of capital in the U.S. economy over the past eight years that are associated with direct investment. The data indicate that firms can raise funds in three different ways : they can borrow it from the parent company as an intercompany debt transfer; they can raise the funds in the domestic economy in the form of equity capital, or they can raise their funds internally from profits generated by the firm and used as reinvested earnings.

The data in Table 3 indicate that over the eight-year period 1999-2006, 8% of the funds foreign firms used to invest in U.S. businesses came from the foreign parent company in the form of intercompany debt. The rest of the funds foreign investors used to invest in U.S. businesses was raised in the United States, not imported from abroad. Equity capital raised in the U.S. capital markets accounted for 77% of the share of the funds foreign firms used to invest, with the rest, 15%, generated from the reinvested earnings of the foreign firms. In comparison, the overseas affiliates of U.S. parent firms raised the largest part of their funds—72%—from the reinvested earnings of the affiliates, partly reflecting the older, more mature nature of the investments. Of the rest of the funds, 42% was raised through the equity capital markets in the host country, and 6% was raised through intercompany debt.

**Table 3 : U.S. Direct Investment Abroad and Foreign Direct Investment
in the U.S. Economy, Annual Flows 1999-2006**
(in billions of U.S. dollars)

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|
| U.S. Direct Investment Abroad | | | | | | | | |
| Capital | \$142.3 | \$154.5 | \$149.6 | \$316.2 | \$3.6 | \$244.9 | \$398.6 | \$332.0 |
| Equity capital | 60.9 | 42.7 | 35.5 | 133.2 | 61.9 | 49.0 | 174.9 | 90.2 |
| Reinvested earnings | 69.8 | 85.3 | 121.0 | 162.9 | —10.3 | 217.3 | 238.9 | 251.5 |
| Intercompany debt | 11.6 | 26.5 | — 6.6 | 20.0 | —15.4 | — 21.3 | — 15.3 | — 9.7 |
| Foreign Direct Investment in the United States | | | | | | | | |
| Capital | \$167.0 | \$84.4 | \$63.7 | \$146.0 | \$112.6 | \$243.1 | \$275.7 | \$319.7 |
| Equity capital | 140.9 | 105.3 | 93.4 | 92.9 | 70.7 | 115.0 | 155.0 | 250.2 |
| Reinvested earnings | — 33.9 | 1.6 | 14.5 | 49.5 | 41.7 | 69.1 | 49.4 | 54.6 |
| Intercompany debt | 60.0 | — 22.6 | — 44.0 | 3.5 | 0.2 | 59.0 | 71.0 | 15.0 |

Source : U.S. Department of Commerce.

Supporters of foreign direct investment also highlight the number of jobs created by foreign investment in the economy. In the case of foreign direct investment in the U.S. economy, however, the employment picture is somewhat unclear. While foreign direct investment on the whole does support and contribute to existing employment in the economy, the particular nature of the investment makes it difficult to

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assess the full contribution of this investment to the overall employment picture. Foreign firms can invest in the U.S. economy in three ways : by adding to current investments; by establishing a new venture, termed, a “greenfield” investment; or by acquiring an existing U.S. business. The data in Table 4 exclude additions to employment that can be accounted for by on-going foreign-owned firms and focus on U.S. businesses that are acquired or are newly established by foreign investors.

The data in Table 4 also indicate that during the 1998-2008 period, acquisitions of existing U.S. firms accounted for nearly 90% of the assets of the businesses that were either newly established or acquired by foreign investors, 95% of the increases in employment, 92 % of the sales, and 91% of the investment outlays. As a result, employment associated with acquisitions of established U.S. firms accounts for a large part of the total number of employees of foreign firms that currently are operating in the United States. It is likely that such acquisitions help to sustain the level of employment of the acquired firms, but it is difficult to estimate how much new employment is added to the economy as a result of the extensive role foreign acquisitions play in the economy. It also is unclear what long-term impact these acquisitions are having on employment among the acquired firms. In some cases, foreign firms may use their acquisitions as a springboard to expand their operations and, therefore, their employment in the United States, in other circumstances, they may use an acquisition to consolidate or to streamline other operations, which may result in reducing their level of employment.

Table 4 : U.S. Businesses Acquired or Established by Foreign Investors

(in millions of dollars, unless otherwise indicated)

| | U.S. business enterprises acquired | | | | | U.S. business enterprises established | | | |
|------|------------------------------------|--------------|-----------|-----------------|--------------------|---------------------------------------|----------|-----------------|--------------------|
| | Total assets | Total assets | Sales | Number of empl. | Investment outlays | Total Assets | Sales | Number of empl. | Investment outlays |
| 1998 | \$274,349 | \$218,483 | \$147,434 | 603,385 | \$182,357 | \$55,866 | \$17,471 | 21,199 | \$32,899 |
| 1999 | 454,012 | 430,226 | 115,534 | 589,311 | 265,127 | 23,786 | 8,718 | 13,368 | 9,829 |
| 2000 | 482,021 | 463,142 | 153,525 | 748,952 | 322,703 | 18,879 | 7,204 | 21,068 | 12,926 |
| 2001 | 382,308 | 311,220 | 90,778 | 335,088 | 138,091 | 71,087 | 18,131 | 74,879 | 9,017 |
| 2002 | 105,516 | 92,800 | 51,945 | 211,679 | 43,442 | 12,716 | 3,735 | 6,808 | 11,077 |
| 2003 | 219,072 | 198,474 | 51,376 | 161,607 | 50,212 | 20,598 | 3,173 | 4,449 | 13,379 |
| 2004 | 308,638 | 252,481 | 60,592 | 199,227 | 72,738 | 56,127 | 6,744 | 12,366 | 13,481 |
| 2005 | 181,846 | 148,695 | 65,188 | 230,825 | 73,997 | 33,151 | 1,953 | 5,045 | 17,393 |
| 2006 | 356,541 | 343,454 | 78,395 | 214,660 | 148,604 | 13,086 | 868 | 686 | 16,999 |
| 2007 | 411,777 | 377,551 | 159,438 | 487,000 | 223,616 | 34,226 | 3,240 | 9,598 | 28,301 |
| 2008 | 895,733 | 872,291 | 176,657 | 364,469 | 242,798 | 23,443 | 6,284 | 4,036 | 17,564 |

Source : Anderson, Thomas, Foreign Direct Investment in the United States : New Investment in 2008. *Survey of Current Business*, June 2009.

As Table 5 shows, acquisition activity is not limited to foreign firms, but is a well-established feature of the overall business climate in the United States. In terms of the number of acquisitions that were completed, 1998 stands out as the most active year, with over 10,000 deals completed. As the U.S. economy posted strong economic growth through the later 1990s and into the early 2000s, such acquisition activity remained strong among all three groups : U.S. firms acquiring U.S. firms; foreign firms acquiring U.S. firms and U.S. firms acquiring foreign firms. On average over the 10-year period, nearly 8,000 acquisitions were completed each year among the three types of investments. The share of these transactions accounted for by foreign acquisitions of U.S. firms grew by 50% over the 1998-2007 period, rising from 8% of all acquisition transactions in 1998 to nearly 15% of all transactions in 2007. Merger and acquisition activity slowed markedly in 2008 and 2009 as the financial crisis and economic slowdown reduced corporate profits and substantially reduced access to financial resources.

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Table 5 : U.S. and Foreign Acquisition Activity, 1997-2006

| Year | Total Acquisitions | | U.S. Acquisitions U.S. Companies | | Foreign Acquisitions of U.S. Companies | | U.S. Acquisitions of Foreign Companies | |
|------|--------------------|----------------|-------------------------------------|----------------|--|----------------|---|----------------|
| | Number of Deals | \$ Billions | Number of Deals | \$ Billions | Number of Deals | \$ Billions | Number of Deals | \$ Billions |
| 1997 | 8,479 | \$771.0 | 6,317 | \$606.3 | 775 | \$84.9 | 1,387 | \$80.3 |
| 1998 | 10,193 | 1,373.8 | 7,575 | 1,019.6 | 971 | 227.0 | 1,647 | 127.2 |
| 1999 | 9,173 | 1,422.9 | 6,449 | 1,005.1 | 1,148 | 264.0 | 1,576 | 153.8 |
| 2000 | 8,853 | 1,781.6 | 6,032 | 1,304.6 | 1,264 | 338.0 | 1,557 | 139.0 |
| 2001 | 6,296 | 1,155.8 | 4,269 | 838.3 | 923 | 204.3 | 1,104 | 113.2 |
| 2002 | 5,497 | 625.0 | 3,989 | 450.4 | 700 | 85.5 | 808 | 89.1 |
| 2003 | 6,169 | 525.5 | 4,539 | 352.8 | 750 | 82.0 | 880 | 90.7 |
| 2004 | 7,102 | 855.3 | 5,140 | 628.6 | 822 | 104.1 | 1,140 | 122.6 |
| 2005 | 7,600 | 996.9 | 5,463 | 733.9 | 977 | 112.7 | 1,160 | 150.3 |
| 2006 | 8,621 | 1,434.4 | 6,105 | 1,015.5 | 1,142 | 200.9 | 1,374 | 218.0 |
| 2007 | 9,167 | 1,737.8 | 6,343 | 1,151.0 | 1,343 | 321.2 | 1,481 | 265.5 |

Source : *Mergers & Acquisitions*, February 2007.

Another notable feature of the data is the way in which foreign acquisitions of U.S. firms and U.S. acquisitions of foreign firms seem to rise and fall in tandem. As the rate of U.S. economic growth slowed in the early 2000s, acquisition activity slowed not only in the United States, but for U.S. acquisitions abroad as well. Figure 2 and Figure 3 show the number of deals and the value of those deals for U.S. acquisitions of foreign firms and foreign acquisitions of U.S. firms, respectively. In both cases, the number of deals and the value of those deals dropped between 2000 and 2002 for both U.S. and foreign firms before activity rebounded after 2002. Such similarities in the acquisition activity of U.S. and foreign firms seem to be counter-intuitive in that those forces that draw U.S. firms to invest abroad should theoretically be separate from those factors that draw foreign firms to invest in the United States.



Figure 2 : U.S. Acquisitions of Foreign Companies

Source : *Mergers and Acquisitions*

Notes

In some respects, foreign investment in the United States and U.S. investment abroad should operate as substitutes, so that both U.S. and foreign firms would be expected to invest in the United States when the U.S. economic growth rate was strong relative to other advanced economies and both U.S. and foreign firms would be expected to invest elsewhere when the relative rate of U.S. economic growth was weak. Instead U.S. investment abroad is strong when foreign investment in the United States is strong and U.S. investment abroad is weak when foreign investment in the United States is weak. The two trends likely reflect the impact the U.S. economy has on the global economy and particularly on Western Europe, where much of the U.S. overseas investment and acquisition activity is concentrated. As a result, when the rate of economic growth in the United States is strong, foreign firms are drawn to invest in U.S. businesses. In addition, the stronger rate of economic growth in the United States enhances the profit position of U.S. firms which encourages them to increase their investments both at home and abroad as U.S. economic activity also boosts economic performance in Western Europe and among other developed economies that have become increasingly linked with the U.S. economy.

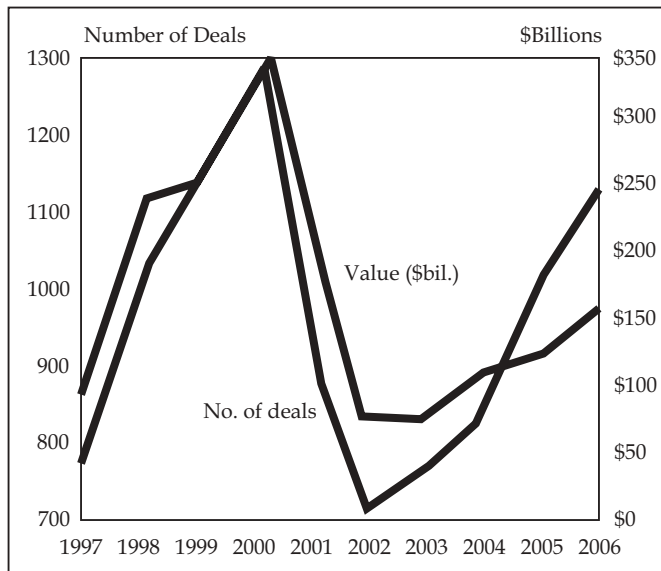


Figure 3 : Foreign Acquisitions of U.S. Companies

Source : *Mergers and Acquisitions*



Notes

Who benefits from foreign investment?

Self -Assessment

1. Choose the correct options:

(i) Foreign direct investment:

- I. Increases the domestic country's stock of capital and therefore can increase productivity
- II. Can bring new technologies to poorer countries
- III. Causes some of the income earned from the investment to exit the country that received the investment

(a) II and III only

(b) I only

(c) II only

(d) I, II, and III

(e) I and III only

27.3 Summary

- A host country's decision on which type of investment to pursue is made within a wide range of interests and a variety of complex objectives. Such decisions are necessarily characterised by considerable uncertainty and risk as each type of FDI comes with its own benefits and drawbacks although the net result appears to be that FDI does have a positive effect on an economy's growth and development.
- Five different types of FDI were discussed, namely : export oriented, market development, government initiated, greenfield, and mergers and acquisitions. Distinguishing government-initiated investment projects from other types of investment projects is difficult and necessarily imprecise because virtually all foreign investment projects in less-developed countries (LDCs), including export-oriented and market-development projects, receive government encouragement through subsidies in one form or another. However, the distinction becomes difficult to draw when other forms of FDI are supplemented with other government investment incentives. The distinction between export-oriented investments and those oriented to local sales (i.e. market development) is more firmly based than that between market-development and government-initiated investment. Thus the distinction between these types of investments is more hazy and difficult to interpret. The differences in the origin and determinants of these two types of investment suggest that the distinction is of some value even though the statistical differences between these two categories are open to greater question and must be interpreted with considerably more caution than the difference between export- and locally oriented projects.
- The UNCTAD report concludes that it is difficult to distinguish between the impact of greenfield and acquisition types of FDI on a host country. UNCTAD also observes that there are broader policy concerns regarding the weakening of the national enterprise sector, loss of control over the direction of economic development, and the pursuit of social, cultural and political goals resulting from the activities of MNEs. The basic question here is what role foreign firms should play in an economy, regardless of whether they enter through greenfield investment or cross-border M&As. In light of potential host-country consideration of the need for a specific type of FDI, Wei states that : Each country needs to make its own judgement in the light of its conditions and needs and in the framework of its broader development objectives. It also needs to be aware of - and to assess-the trade-offs involved, whether related to efficiency, output growth, the distribution of income, access to markets or various non-economic objectives.
- With this in mind, the focus of the study in the next chapter will be on the effects of FDI on an economy.

27.4 Key-Words

Notes

1. Access Policy : Policies that govern the use of IMF resources by its members, including access limits set in terms of members' quotas. The access policy, including annual and cumulative limits, under the credit tranches and the Extended Fund Facility (EFF) are reviewed each year. Access under other facilities also is reviewed periodically. Access under the Supplemental Reserve Facility (SRF) and the Contingent Credit Line (CCL) are not subject to limits in relation to quotas.
2. Interest Rate : The fixed charge or return, usually expressed on an annual basis, on a financial asset expressed as a percentage of the price of the asset.

27.5 Review Questions

1. What is foreign direct investment and the rules & regulation in India related fdi
2. What does FDI stand for ? Why do mncs opt for fdi to enter international market ?
3. Did India slip from 8th to 14th on the global FDI chart ?
4. Why is international investment important?

Answers: Self-Assessment

1. (i) (d) (ii) (d) (iii) (b)

27.6 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 28 : International Debt Crisis

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Objectives

After reading this Unit students will be able to:

- Know the Evolution and Size of the Problem.
- Explain the External Indebtness of Developing Countries.
- Describe the Ability of LDCs to Meet Debt Service Obligations.

Introduction

Until the summer of 1982, the external debt problems of Eastern bloc and less developed countries (LDCs) were regarded as benign, or were ignored, by nearly all international financial and economic analysts and policy makers. Now, most observers share the conviction that these problems pose a current threat to the free world's financial and economic health and stability and must be dealt with quickly and forcefully. This study focuses on the present crisis. Longer term issues raised by the external indebtedness of Eastern bloc nations and LDCs will be dealt with in later studies.

By all accounts, the external debts of Eastern bloc nations and LDCs are enormous. Government officials, financiers, economists, and the news media are urging that these countries be given help to cope. In opening hearings on "International Financial Markets and Related Problems" before the Committee on Banking, Finance, and Urban Affairs of the House of Representatives on 21 December 1982, Chairman St. Germain referred to this call for help as the "conventional wisdom." He said, "These hearings . . . come against a backdrop of news reports about impending requests for an enormous new funding of the International Monetary Fund. The conventional wisdom suggests that the Congress should quickly and quietly vote the new funds, accept the Administration's and the Federal Reserve's rationale, and ask questions later—if at all." But, should the United States help these countries ? If so, how ? These are the current policy questions. My purpose is to clarify the issues involved and to provide guidance to the public and to policy makers who must resolve them.

From 1973 to 1982, Eastern bloc nations and LDCs and their residents greatly increased their borrowings from lenders in the United States and other developed free world countries. Few worried as the external debts of these countries and their residents mounted. Now, however, their debts are viewed ominously. They are regarded as serious threats to world trade, political moderation in LDCs, and to the financial and economic health and stability of the United States and other developed free world nations.

Concern is growing over whether some Eastern bloc nations and LDCs will be able to service their debts. Defaults have been avoided to date only because the United States and other developed free world countries and the Bank for International Settlements (BIS) have provided emergency "bridge"

loans, private creditors have postponed scheduled loan repayments and extended new credits, and the International Monetary Fund (IMF) has granted timely longer-term loans.

Some analysts worry that smaller banks, which have gone along until now with postponing scheduled loan repayments and extending new credits, will soon balk, especially at extending new credits. In part, smaller banks do not want to assume additional risks. In addition, their access to dollar deposits, especially in the Eurodeposit market, has been constrained in recent months by depositors' "flight to quality." Thus, even smaller banks that want to participate in extending new credits to debtor nations and their residents are finding it difficult at the present time. This increases the pressure on large banks, and some of them are thought to be growing nervous about increasing their exposure to defaults by Eastern bloc nations and LDCs.

To some observers, the United States is caught in dangerous waters where, like the straits between Scylla and Charybdis, avoiding one disaster leads to another. If defaults and political change were the only dangers, we could steer a course between the two. But, in setting our policy course, it would be a mistake to assume that these are the *only or even the greatest dangers we face*. The greater peril may lie in the side effects of policies adopted to help debtor nations cope.

The remaining sections of this study examine the evolution and dimensions of the external debt problem confronting the Eastern bloc nations and LDCs; the logic of the popular worst-case scenarios and the more likely sequence of events; and solutions to the current Eastern bloc and LDC debt crisis.

28.1 Evolution and Size of the Problem

How Did It Happen ?

The external debts of non-OPEC developing countries grew only moderately before the quadrupling of oil prices in late 1973 and early 1974. At the end of 1973, their medium-and long-term indebtedness was about \$100 billion.¹ After 1973, as Chairman Willard C. Butcher of the Chase Manhattan Bank observed, "the pace of lending accelerated with the world's major banks playing the leading role." By the end of 1982, non-OPEC developing countries' medium-and long-term indebtedness was \$520 billion.

The 1973 and 1974 increases in oil prices provided both financial resources and motive for a jump in external borrowing by non-OPEC developing countries. The increases in oil prices generated huge current account surpluses for OPEC members. Every year, billions of dollars were transferred to OPEC members from oil importing nations. The aggregate current account surplus of OPEC member nations rose from only \$7 billion in 1973 to \$68 billion in 1974.

In the mid-1970s, while planning what to import, Saudi Arabia and other OPEC members used their new surpluses to purchase deposits from free-world banks, thereby providing financial resources for expanded bank lending to non-OPEC developing countries. At the same time, higher oil prices caused non-OPEC developing countries greatly to increase their credit demands. Non-oil producing countries had to do so in order to finance the huge current account deficits they experienced as they sought to maintain physical oil imports at pre-1973 levels and to continue to provide for growth through capital imports. Oil producing countries outside OPEC, such as Mexico, did so in order to develop their oil resources and to provide for growth in other sectors of their economies.

The match was obvious. In the mid-1970s, banks recycled OPEC's surpluses to non-OPEC developing nations. If banks had not matched the new petro-deposits to the new credit demands of non-OPEC developing nations, if they had loaned the funds to other entities instead, some of these other entities or those to whom the funds were transferred, further down the line, would have done the recycling. Where arbitrage opportunities exist, there are certain to be arbitrageurs.

1 Estimates of indebtedness usually exclude short-term debt; that is, debt with an original maturity of less than one year. However, the magnitude of the problem is reasonably accurately measured by medium- and long-term debt alone because the short-term foreign financial liabilities of non-OPEC developing countries are not significantly larger than their short-term foreign financial assets.

Notes

By 1978, the OPEC current account surpluses virtually disappeared as OPEC nations more closely matched imports to exports. They quickly reappeared as a result of the effects of the Iranian revolution on oil prices in 1979 and 1980. However, by 1982, they had dwindled once again.

The credit appetites of non-OPEC developing nations did not decline as the current account surpluses of OPEC members fell in 1978 and again after 1980. As David P. Dod of the Federal Reserve Board's Division of International Finance pointed out (*Federal Reserve Bulletin*, September 1981) : "An increase in public-sector and private borrowing combined has been necessary in view of economic policies in developing countries that have contributed to higher, sustained deficits in the current account of their balance of payments." The underlying policies were extremely rapid money growth and huge budget deficits continuing year after year. These policies produced inflation. With exchange rates fixed or at least sticky, inflation reduced exports and increased imports, and thus acted to increase current account deficits.

Non-OPEC developing countries had to borrow to finance their current account deficits or else abandon the policies that were perpetuating the deficits. Not all of them perpetuated inflationary policies. Some, especially in Asia, reduced money growth in the early 1980s. But some Latin American nations pursued inflationary policies throughout the late 1970s and early 1980s. These countries had to borrow.

Banks in the United States and other developed free world countries were eager to lend to Eastern bloc nations and LDCs in the late 1970s and early 1980s in part because they underestimated the risks, but also because lending opportunities in their own markets were squeezed. Their own market opportunities were squeezed because real wages increased unsustainably, especially in Western Europe. European trade unions were able to raise nominal wage rates faster than prices were rising. As a result, the demand for loans by businesses in Western Europe was dampened, and U.S. and other multinational banks limited their lending activities in Western Europe and expanded them in the United States and Eastern bloc nations and LDCs. And because the increased competition from multinational banks in U.S. markets left many primarily domestically oriented U.S. banks with fewer loan customers in the United States, many of these banks were impelled to begin or to step up their lending to Eastern bloc nations and LDCs.



Notes

The ratio of wages to Gross Domestic Product in most major Western European countries increased substantially in the late 1970s.

The Organization for Economic Cooperation and Development (OECD), in its *External Debt of Developing Countries 1982 Survey* [hereafter, 1982 Survey], estimates that bank medium- and long-term loans to non-OPEC developing countries increased from \$69 billion at year-end 1977 to \$182 billion at year-end 1982, an increase of \$113 billion. Other private lending to borrowers in these countries increased from \$20 billion to \$46 billion. These loans do not include credits to finance exports to these countries, which jumped from \$45 billion to \$105 billion during the same period.

Export credits aside, the new private credits to non-OPEC developing country borrowers were used to finance private business investments and government construction and development plans, including delivery of extended and upgraded education services. However, some of the new credits were used to finance increased consumption. Not all of the investments that were made with the new loans were sound, nor were all of the construction and development plans sensible. Further, parts of some loans were dissipated in corruption. By the second half of 1982, it was clear that there were problems.

Referring to the massive debt structure built up in recent years, Wall Street financial analyst Henry Kaufman said (*Washington Post*, 19 September 1982) : "It has financed . . . not a large amount of economic efficiency, but for a long while a large amount of inflation. But now we have it, it is there, it has a maturity schedule and it has an interest payment." A comprehensive analysis of what went wrong would not help us to clarify whether the United States should help debtor nations to cope, and, if so, how; nor would it provide guidance to the public and to policy makers, who must resolve

the issues. To most analysts, however, it is clear that lenders as well as borrowers are to blame for the abuses and excesses that occurred.

The OECD put it this way in its 1982 *Survey*: “It appears in retrospect that certain developing countries have borrowed unwisely (as indeed have some other borrowers), using some of the resources to finance consumption and investments of dubious value, rather than to strengthen their productive potential.” They were able to do so because creditors, primarily banks, did not constrain their lending by adhering to normal prudent standards. Rather, “overeagerness by banks to lend has sometimes allowed borrowing governments to delay necessary adjustments.”

Some would absolve banks from blame. They argue that banks would have been less eager to lend to developing countries if they had reliable, current information about the total indebtedness of the countries to whom they were lending. Through 1982, each bank had timely information only on its own loans. However, the argument is not persuasive. One large regional bank, the National Bank of Detroit, as reported by Sanford Rose of the *American Banker*, stopped lending to Mexico by the end of 1981 based on an in-house analysis of the risk involved. Furthermore, all banks should have understood the risk of operating without full information and tempered their eagerness to lend to developing countries accordingly. As it was, some banks made loans in excess of their capital to countries that are now having trouble meeting their debt-service obligations.

Regardless of how much blame should be assigned to borrowers and how much to lenders, by the summer of 1982 it was clear that some LDCs and Eastern bloc nations were having trouble servicing their debts, that their bankers were becoming concerned and reluctant to extend new credits and in some cases to renew maturing credits, and that some banks, including some in the United States, had made loans to these countries in excess of their capital, some-times in disregard of the advice of in-house specialists on sovereign risk. These elements define the current crisis.

Those who look for proximate causes will tie the emergence of the present debt crisis to the 1981 to 1982 disinflation and recession. During recessions, especially when accompanied by substantial disinflation (to build a springboard for sustainable growth), as in 1982, debts are not easily serviced by debtors, nor are they automatically renewed by lenders. This view of the emergence of the debt problem has been popularized by the press. The *New York Times*, for example, wrote on 9 January 1983, that “what has really gone wrong in the third world can be traced to the weak world economy rather than to an overextension of credit by greedy commercial bankers or extravagant borrowing by imprudent leaders of developing nations.” The *Washington Post* wrote on the same day, “The recession has sent to the brink of bankruptcy countries once thought to be impeccable credit risks . . . [depressing] demand prices for commodities that are the mainstay of the developing world.”

However, disinflation and recession in the 1981 to 1982 period did not occur in an historical vacuum but followed a wave of inflation that began in 1977. The debt crisis can be tied to that inflationary surge. Advocates of this view need not dispute that the debt build-up financed “a large amount of inflation,” as Kaufman pointed out, or that initially the inflation was associated with robust growth figures. Early on, the chain of causation definitely runs from debt accumulation and money creation to inflation and growth. Later on, however, the chain of causation runs the other way—from inflation to debt accumulation and recession. Inflation undermines household, business, and government balance sheets. It creates an atmosphere in which debtors flourish and become eager to borrow, often without regard to risk, while lenders downgrade risks. As a result, careless practices creep into the lending process and indebtedness increases dangerously. At the same time, even if it is periodically ratcheted upward, inflation inevitably produces recessions. Since, as balance sheets deteriorate, production and spending fall, especially capital formation and investment spending.

The inflationary surge of the late 1970s to 1981 is legitimately viewed as the underlying cause of the present debt crisis. The 1981 to 1982 recession period was the trigger event. The recession suppressed demands for goods and services generally, and because commodity and raw materials markets are relatively competitive, commodity and raw materials prices declined relatively more than the prices of intermediate and finished goods. In fact, the latter continued to increase on average.

On balance, non-OPEC developing countries export commodities and raw materials and import intermediate and finished goods. Thus, the 1981 to 1982 recession raised their trade and current

Notes

account deficits. At the same time, at least until recently, high interest rates raised the costs of financing current account deficits and refinancing maturing debt. As a result, many non-OPEC developing countries have found it difficult—and sometimes impossible—to meet their debt service obligations. High interest rates, which resulted primarily from the inflationary surge that preceded the 1981 to 1982 recession, had an even more devastating impact on the ability of some LDCs to meet their debt-service obligations. During the inflationary surge of the late 1970s, the interest rates at which Eastern bloc nations and LDCs borrowed were generally below the U.S. inflation rate. As a result, the real cost of carrying external debts was negative during this period. However, market interest rates rose dramatically in the 1979 to 1981 period, only recently have they dropped below 1979 levels. As short-term market interest rates rose, loan rates also rose both on new and maturing loans and on debt subject to variable or floating interest rates. In 1981 and the first half of 1982, the interest rates paid on debt subject to floating interest rates averaged substantially higher than the U.S. inflation rate. For nations with a large part of their debt consisting of floating-rate loans, the consequences were deadly. The OECD 1982 *Survey* estimates that for Argentina, Brazil, Mexico, and their residents, “about three-quarters of their total [gross] debt was due to private markets at variable interest rates and without official support from OECD governments [compared with under 20 percent for most developing countries].” A 1 percentage point increase in the London Interbank Offered Rate (LIBOR) means an increase in yearly net interest payments, calculated on 1982 indebtedness, of \$593 million for Mexico, \$455 million for Brazil, and \$205 million for Argentina. It is easy to see how higher interest rates in the 1981 to 1982 period greatly strained the abilities of these nations to meet their debt service obligations. That will reduce the burden of their debts. But even though the bomb need not go off, and in my view won’t, it might. The merchandise trade surpluses of developing nations will not increase automatically in future years. Investment income will not necessarily grow. Loan interest rates, which have fallen substantially since the spring and summer of 1981, might rise again. If the trade and investment accounts of developing nations do not improve, or if they worsen, and if interest rates rise again, then in the absence of generous loan reschedulings or heroic official aid, widespread, major formal defaults are inevitable. It is important, therefore, to understand how widespread, major debt repudiation would affect the U.S. banking and monetary systems and how it would affect U.S. exports, GNP, and employment. Whether we should help developing nations cope with their debts depends crucially on the analyses of these issues. Before analyzing these issues, however, it is useful to discuss the dimensions of the external debts of Eastern bloc and less developed countries, the exposure of U.S. banks, the abilities of individual countries where U.S. bank loans are concentrated to meet their debt service obligations, and whether our banks have enough capital to absorb defaults.



Did u know? The “debt-bomb” can be disarmed. Economic recovery is under way in the United States and other developed countries. That will increase developing countries’ capacities to service their external debts. Interest rates are down.

28.2 The External Indebtedness of Developing Countries

How much do Eastern bloc nations and LDCs owe in total? Hobart Rowan wrote (*Washington Post*, 19 October 1982): “No one really knows.” But he reported that “a high-level World Bank official said that if everything were known about the super-secret world of banking, the real global total would probably add up to something close to \$750 billion.” Official estimates are somewhat lower.

The World Bank estimates that at year-end 1981 the medium- and long-term debts of 98 developing countries totaled \$462 billion. The International Monetary Fund estimates that the medium- and long-term external debts of non-oil developing countries totaled \$437 billion at year-end 1981 and rose to \$502 billion at year-end 1982. The OECD estimates that the outstanding disbursed medium- and long-term external debts of non-OPEC developing countries, including Eastern bloc nations, totaled \$445 billion at year-end 1981 and increased to \$520 billion at year-end 1982. Including members of OPEC, the medium- and long-term indebtedness of the world’s developing countries is estimated to have been \$530 billion at year-end 1981 and to have increased to \$626 billion at year-end 1982.

Notes

Official estimates exclude short-term debt; that is, debt with an original maturity of less than one year. The 1982 gross short-term external indebtedness of developing countries exceeded \$120 billion for non-OPEC developing countries and may have been as much as \$175 billion for all developing countries. However, the short-term foreign assets of developing countries, including non-OPEC developing countries, are about the same as their short-term foreign debts. Thus, it is appropriate to ignore short-term debt in estimating the total external indebtedness of developing countries. In contrast, the medium- and long-term foreign assets of developing countries fall far short of their total external medium- and long-term debts.

The OECD data show that U.S. and other free world bank medium- and long-term loans other than export credits were \$182 billion,² or 35 percent of the grand total, and that more than 20 percent of all loans were at “concessional” rates and terms. From an analytical standpoint, the importance of the first fact is that exposure of the free world’s banking system to defaults by Eastern bloc nations and LDCs is much less than their total indebtedness; excluding export credits, it was \$182 billion at year-end 1982. The importance of the second fact is that the burden of the external debts of developing countries cannot be gauged by looking only at the size of their debts.

The total medium- and long-term debt of Eastern bloc nations and LDCs and the bank subtotal are dramatic statistics, but they are not meaningful ones, since they differ depending on what nations are aggregated in estimating them, and the bank debt subtotal also depends on whether export credits are included. Moreover, the fact is that there is no aggregate Third World debt problem. Banks are exposed significantly in some developing countries and hardly at all in others. Further, different countries have different capacities to handle debt, and their capacities will be affected differently by the same event; for example, by a change in the price of oil or in interest rates. Debt, as the OECD points out, is “a phenomenon which manifests itself at the level of individual countries, rather than in aggregates and averages.” *Country specific data on the exposure of U.S. banks* and the ability of LDCs to service their external debts are discussed in the sections that follow.

Exposure of U.S. Banks

In its 1982 *Survey*, the OECD estimated that if all borrowers, sovereign and private, in all non-OPEC developing countries in Eastern Europe, Latin America, the Caribbean, Asia, and Africa repudiated their year-end 1982 external debts, U.S. and other free world banks would face balance sheet write-offs of \$159 billion. The OECD, in its tabulation of data on “Lending and ‘Exposure’ of Banks to Non-OPEC Developing Countries,” provided the following estimates of outstanding disbursed amounts at year-end 1982 :

| Bank Credits and Exposure | \$ Billion |
|--|------------|
| 1. Short-term credits | 134 |
| 2. Medium- and long-term credit | 231 |
| A. Officially guaranteed export credits | 49 |
| B. Financial loans and credits | 182 |
| 3. Total outstanding (1 + 2) | 365 |
| 4. Deposits with BIS banks | 157 |
| 5. Total net bank “exposure” (3 — 4) | 208 |
| 6. Net bank “exposure” excluding guaranteed export credits (5 — 2A) | 159 |

² In testimony before the House Banking Committee on 2 February 1983, Federal Reserve Board Chairman Paul A. Volcker stated that non-OPEC developing countries owed banks here and abroad \$268 billion and their total debt was \$550 billion in mid-1982. However, the Federal Reserve’s \$268 billion subtotal includes certain export credits that are not included in the OECD’s \$182 billion subtotal. This accounts for the major part of the difference between the two figures.

Notes

The 1982 exposure of U.S. banks was less. Data from the Federal Reserve Board's June 1982 *Country Exposure Lending Survey* show that, as of June 1982, adjusted for guarantees, U.S. banks were owed \$343.6 billion by foreign borrowers. However, \$196.7 billion of this total was owed by borrowers in developed countries. With the exception of Spain, the risk of default by borrowers in developed countries is trivial. Borrowers in non-OPEC developing countries in Eastern Europe, Latin America, the Caribbean, Asia, and Africa owed \$108.2 billion to U.S. banks at mid-year 1982. Of this amount, \$69.6 billion was owed by borrowers in Latin American and Caribbean countries and \$27.7 billion by borrowers in Asian countries.

The Federal Reserve Board data also show that the nine largest U.S. banks were owed \$65.6 billion by borrowers in non-OPEC developing countries. The next fifteen largest banks were owed \$21.7 billion, and all other banks were owed \$21.1 billion by borrowers in these countries. Loans to borrowers in Eastern Europe, Latin America, the Caribbean, Asia, and Africa comprised 32 percent of all foreign loans made by the nine largest banks, 33 percent made by the next fifteen largest banks, and 29 percent made by all other banks.

Using the Federal Reserve Board's survey data, a country-by-country examination of U.S. banks' foreign loans show concentrations to borrowers in seven non-OPEC developing countries: Argentina, Brazil, Chile, and Mexico in Latin America, and Korea, the Philippines, and Taiwan in Asia. The exposure of U.S. banks to defaults by borrowers in these seven countries was \$79.5 billion in mid-1982. Nearly 75 percent of all U.S. bank lending to non-OPEC developing nations was to these seven countries: \$25.2 billion was to Mexico, \$20.5 billion to Brazil, \$8.8 billion to Argentina, \$6.1 billion to Chile, \$9.2 billion to South Korea, \$5.3 billion to the Philippines, and \$4.4 billion to Taiwan.

It appears, then, that among non-OPEC developing countries, U.S. banks would be highly exposed if Mexico and Brazil repudiated their debts, and exposed to a significant extent if South Korea, Argentina, Chile, the Philippines, and Taiwan defaulted. This is not to say that formal defaults by borrowers in other nations would not prove troublesome. Among OPEC nations, however, the exposure of U.S. banks in June 1982 was significant (over \$3 billion) only in Venezuela, where U.S. banks were owed \$10.7 billion. Among developed nations, exposure was substantial in all G-10 [Group of Ten] countries, plus Switzerland, Australia, Denmark, Norway, South Africa, and Spain. Of these countries, however, the risk of default is considered trivial except in the case of Spain, where it is considered low but nontrivial. U.S. banks were owed \$6.7 billion by borrowers in Spain at midyear 1982.

28.3 Ability of LDCs to Meet Debt Service Obligations

The OECD 1982 *Survey* estimates that debt service payments of developing countries on their medium- and long-term external debts reached \$131 billion during 1982, with interest payments accounting for \$60 billion and amortization for \$71 billion. For non-OPEC developing countries, interest payments were \$50 billion and amortization \$49 billion. Debt service payments by these countries to banks totalled \$48 billion.

The OECD data on medium- and long-term indebtedness show that in 1982, 51 percent of the aggregate external debts of non-OPEC developing countries (\$266 billion divided by \$520 billion), 64 percent of their total debt-service payments (\$63.3 billion divided by \$93.8 billion), and 67 percent of their interest payments (\$33.2 billion divided by \$49.7 billion) was held and paid by borrowers in newly industrializing countries (NICs). NICs—the most advanced and developed LDCs—paid more interest relative to their indebtedness than other non-OPEC developing countries. The data also indicate that both interest payments and total debt service (interest plus amortization) were somewhat higher percentages of both exports and GNP for NICs than for low income countries (LICs), middle income countries (MICs), and OPEC members.

The ratios of interest payments and total debt service payments to exports and GNP for NICs as a group are not crisis numbers. For example, 15 percent of aggregate NIC export earnings and 3.3 percent of GNP would fully cover the interest payments on NIC medium- and long-term external debts. However, it is not the group totals and ratios that matter. As the OECD notes, "Especially within the group of the NICs, there are enormous differences in the debt-service ratios of individual countries."

Notes

Country specific data show that nearly 45 percent of the total \$131 billion debt-service payments made by developing countries in 1982 were made by Mexico, Brazil, Argentina, Chile, Venezuela, South Korea, the Philippines, and Taiwan—the developing countries where the exposure of U.S. banks to debt repudiation is significant. Debt service payments by these countries, plus Spain, in 1982, and the amounts they owed to U.S. banks at midyear 1982 are given in Table 1. Spain is a developed country, but since some analysts consider the risk that it will default to be nontrivial, it is listed here.

| Table 1 Debt Service Payments by Developing Countries (Billions of Dollars) | | |
|--|--|---|
| Country | Estimated Debt Service Payments in 1982 | Amount Owed U.S. Banks at Midyear 1982 |
| Mexico | 18.5 | 25.2 |
| Brazil | 15.2 | 20.5 |
| Venezuela | 7.8 | 10.7 |
| Spain | 5.7 | 6.6 |
| Argentina | 4.9 | 8.8 |
| South Korea | 4.8 | 9.2 |
| Chile | 3.3 | 6.1 |
| Philippines | 2.1 | 5.3 |
| Taiwan | 2.0 ^a | 4.4 |
| Total | 64.3 | 96.8 |

^aA precise estimate for Taiwan is not available. The figure given is a maximum.

SOURCES : OECD and Federal Reserve Board.

Traditionally, the ability of a nation to service its medium- and long-term external debts is measured by comparing its total debt-service charges (interest plus amortization) to its exports and its GNP, taking into account its reserves. These data are available only with a lag, however. Data for 1981 and 1982 are now available (see Table 2), but they indicate only what was true, not what is now true.

| Table 2 Estimated Medium- and Long-Term Debt Service Payments, Reserves, Exports, and GNP for Countries Where There Is a Nontrivial Chance of Default and U.S. Banks Are Significantly Exposed, 1981 and 1982 (Billions of Dollars) | | | | | | |
|--|-----------------------------------|----------------------|---------------------|-----------------|---------------------------------|------------|
| Country | Debt Service Payments 1982 | Reserves 1981 | Exports 1982 | GNP 1981 | Ratio of Debt Service to | |
| | | | | | Exports | GNP |
| Mexico | 18.5 | 4.2 | 26.3 | 230.7 | .70 | .080 |
| Brazil | 15.2 | 6.7 | 27.0 ^a | 274.2 | .56 | .063 |

Notes

| | | | | | | |
|---------------------|-----|------|-------------------|--------------------|-----|------|
| Argentina | 4.9 | 3.4 | 12.0 | 152.1 ^b | .41 | .024 |
| Chile | 3.3 | 3.3 | 6.1 ^a | 31.4 | .54 | .099 |
| Venezuela | 7.8 | 8.7 | 24.5 ^a | 67.0 | .32 | .090 |
| South Korea | 4.8 | 2.7 | 27.6 ^a | 63.4 | .17 | .063 |
| Philippines | 2.1 | 2.3 | 8.5 ^a | 39.7 | .25 | .040 |
| Taiwan ^c | 2.0 | — | — | — | — | — |
| Spain | 5.7 | 11.4 | 20.5 ^a | — | .28 | — |

^a1981.

^b1980.

^cData are not available for Taiwan as it is not a member of the IMF.

SOURCES : World Bank, OECD, IMF.

Conditions now, early in 1983, are very different from what they were in 1981 and 1982; and they are almost certain to change as time passes. As conditions change, the debt-burden ratios change. In addition, traditional comparisons sometimes are distorted. For example, a financially strained country might shorten the maturity of its debt, reducing its payments to service its medium- and long-term debts. Thereby, its medium- and long-term debt-service ratios would be improved, even though its problems had worsened.

Because of the inevitability of change and the possibility of data distortions, the data for 1981 and 1982 must be used with utmost caution. With this caveat in mind, the data assembled in Table 2 show that the debt-service ratios of South Korea, the Philippines, and Spain were below or close to 1982 averages for all non-OPEC countries and that Venezuela's debt service to exports ratio was only moderately above the average. Further, Spain and Venezuela had large reserves at the end of 1981, although there are reports that they fell in 1982. In short, South Korea, the Philippines, Spain, and Venezuela were well able to service their debts in the 1981 to 1982 period, while Mexico, Brazil, Argentina, and Chile had difficulties. Brazil and Mexico were the most financially strained.

Economic conditions have changed in recent months. On the whole, it appears that it will be easier for all of the nations listed in Tables 1 and 2, excepting possibly Mexico and Venezuela, to service their debts in 1983 than it was in 1981 and 1982. First, it now seems clear that interest rates will be much lower, on average, in 1983 than in 1981 and 1982. As a result, all debtor nations will find it somewhat easier to service their debts in 1983 than in 1981 and 1982, especially nations with high proportions of their total debt in floating interest rate loans. A 1 percentage point decrease in LIBOR decreases Mexico's annual debt service payments by \$593 million, Brazil's by \$455 million, and Argentina's by \$205 million. The calculations, which are based on 1982 indebtedness, assume constant spreads between floating loan rates and LIBOR. These are significant reductions. For Mexico, debt service payments are reduced by 3.2 percent for each percentage point reduction in loan rates; for Brazil, by 3 percent; and for Argentina, by 4.2 percent. LIBOR has fallen about 7 percentage points since mid-1982.³ Even though spreads have increased some-what, it is clear that in 1983, Mexico, Brazil, and Argentina will find it much easier to service their external debts than they did in 1981 and 1982.

Second, we are likely to see lower oil prices in 1983. A fall in the price of oil will decrease Mexico's and Venezuela's export earnings, decreasing their ability to service their debts. At the same time, lower oil prices will increase the ability of the other seven nations to service their debts, since their expenditures on imports will decrease. Interest rates could also decline further, helping even Mexico and Venezuela meet their debt service charges, although perhaps not enough to offset the loss of export earnings. Finally, partly as a result of the fall in the world price of oil, a stronger recovery from the recession that has afflicted developed countries is now expected. For most nations, this too will enhance their ability to service their debts.

Based on conditions as they now appear (early 1983), only Mexico and possibly Venezuela among countries where U.S. bank loans are concentrated and there is a nontrivial chance of default will have difficulty meeting their debt service obligations in the foreseeable future. Even these countries have improved prospects compared to the 1981 to 1982 period in some respects.

Will Defaults Depress World Trade ?

World trade depends strategically on the continued availability of finance. As stated in OECD's 1982 *Survey*, "In most DAC [Developed Assistance Committee] countries, a substantial part of bank credits to LDCs is related to export financing." The *Survey* estimates that export credits extended by the United States and other DAC countries to non-OPEC developing countries totaled more than \$100 billion at year-end 1982. DAC export credits were 20 percent of the total medium- and long-term external indebtedness of non-OPEC developing countries. These credits define the rock-bottom estimate of the importance of finance to trade between developed and non-OPEC developing countries.⁴ In a more fundamental sense, however, nearly all of the external credit provided to non-OPEC developing nations and their residents is used to finance imports, reflecting the consideration that current account deficits have to be financed by borrowing or direct investment. If the required financing is not forthcoming, imports are likely to have to be cut to close the gap.

Debt repudiation by some non-OPEC developing countries would decrease lending by current creditors to the countries that defaulted. Creditors as yet not involved in lending to these countries could become emboldened to start lending to them, since their slates would now be free and clear of burdensome loans. But it is unlikely that new creditors would fully take up the slack. Formal defaults also would reduce unguaranteed lending by private creditors in developed countries to solvent developing countries and their residents. Default risks might even be revised upwards for loans to developed countries and their residents, which would reduce lending to those borrowers. It is almost a certainty, then, that if there are widespread, major formal defaults, there will be less private unguaranteed finance to lubricate the engines of international trade.

To some extent, less finance would be needed because the current account deficits of nations in default would be reduced since they will not be paying interest. However, it seems unlikely that some shortfall in export finance will not emerge. Unless the gap is filled by guaranteed loans, official aid, multilateral assistance, or loans from CMEA countries (an improbable outcome), imports would have to be cut by most nations, especially developing nations. As a corollary, exporters would have to retrench, especially in developed countries.

Dr. Otto Emminger, former president of the German Federal Bank, told the Fifth Quadrangular Conference of the Center for Strategic Studies in September 1982 that

a general move toward underlending would have on major effect. It would deprive a great number of developing countries of an essential source of balance-of-payments financing. . . . Last year the banks provided, on a net basis, \$35 billion for the financing of developing countries. That is about one-half of the total net borrowing of these countries in this year. Now if there is too abrupt a cessation, or decline, in this lending, there may be a financing gap that cannot easily be filled by other institutions. And this might force a number of deficit countries to restrict their imports very sharply.

It is clear that the effects of formal debt repudiation on international financial flows and thereby on export and import industries through-out the free world would not be pleasant. But it is easy to overstate the case.⁵ Another Great Depression can be ruled out.

Will Defaults Lead to Another Great Depression ?

Discussions of the debt problems of Eastern bloc nations and LDCs are haunted by the specter of the 1930s. If the problems are not solved, so the story goes, if some of the nations are compelled (or impelled) to repudiate their external debts, the end result will be another Great Depression, an economic contraction on the order of magnitude suffered in the 1930s.

Notes

How could this happen ? In the most popular nightmare scenario, the chain of causation leads from defaults to the collapse of the U.S. banking and monetary systems to the collapse of economic activity. But, as discussed earlier, this hypothesis assumes perverse actions by the bank regulators and irresponsible behavior by the monetary authorities.

The analytical road from defaults by LDCs to another Great Depression does not have to pass through the collapse of our banking and monetary systems. A very different chain of causation has been hypothesized. It passes through the collapse of international trade.

Time magazine, in its 10 January 1983, cover story “The Debt-Bomb Threat,” reported :

The nations that buy many of the industrialized world’s goods are the same ones that have borrowed so heavily. Any economic contraction on their part would boomerang back in the form of less demand by them for imports. The resulting deepening recession, so the theory goes, would further hurt the poorer countries, and so on and on. Once started, the process would be difficult to stop. The development dreams of the third world would come to a halt, stock markets would tumble, unemployment would soar, and world economic conditions would rival those of the 1930s.

To demonstrate that a lot is at stake, *Time* noted that :

More than 40 percent of U.S. exports of commodities and services and one American manufacturing job in 20 hinge on sales to developing countries.

There is an element of truth in *Time*’s scenario, but its conclusion is much too dismal. No doubt economic contraction in LDCs would compel a very painful adjustment in the United States. It would not, however, lead to an unending downward spiral of economic activity. Trade with developing nations would not cease if some repudiated their external debts. Even if it did, the effects on U.S. production and employment and unemployment would be far from cataclysmic.

The figures presented by *Time* cannot be used as is in evaluating the magnitude of the effects decreased exports to the developing world would have on total U.S. output and employment. Stating that 40 percent of U.S. commodity and service exports and one out of every twenty manufacturing jobs “hinge on sales to developing countries” can be misleading.

First, the term “developing countries” is too broad. It includes OPEC members, countries that do not find it difficult to service their debts, and countries whose external debts are largely to international agencies and other official lenders, often at low concessional interest rates. On average, OPEC members are creditor nations, and it is difficult to believe that those non-OPEC countries that can service their debts or that receive loans at concessional rates will repudiate them. At most, trade with these countries will fall only marginally, even if there are widespread loan defaults by other developing nations.

Second, it is difficult to believe that trade with nations that repudiate their external debts will be reduced to zero. At least some trade-related financial arrangements will be continued. Some new ones, with creditors as yet not involved, could be started; the slates of debtor nations will be wiped clean by their defaults and thus it will be relatively less risky to lend to them now. Alternatively, nations that default can use the money they get from exporting to finance imports on a cash basis; they will no longer be paying interest. There also will be barter and so-called countertrade arrangements where exporters accept goods from cash-short countries that can be exchanged for dollars or for other goods.

Third, although one in twenty U.S. manufacturing jobs and 40 percent of U.S. exports may “hinge on sales to developing countries,” today only one job in five in the United States is a manufacturing job and exports are only 12 percent of GNP. Thus, only one in every hundred jobs and 4.8 percent of GNP “hinge on sales to developing countries” (where $.01 = .05 \times .20$ and $.048 = .40 \times .12$).

Finally, it must be understood that in market economies contractions of some sectors are eventually compensated for by expansions of other sectors. If trade declines, some of the resources previously employed in export industries will relocate in industries that produce goods and services previously imported, or close substitutes for them. There is an equilibrating mechanism at work, even though it does not work instantly or painlessly.

Notes

Taking these several factors into consideration, the effects of the falloff in U.S. exports that could be expected to result from major and widespread debt repudiation by developing countries would not be large enough to create another 1930s depression. Given the state of the art, it is impossible to say by how much U.S. real GNP would fall and unemployment would rise in the event of widespread, major defaults; but, all things considered, the fall in GNP is unlikely to exceed 1.5 percent and the rise in unemployment is unlikely to exceed 0.5 percent. These estimates are set forth as benchmarks for putting the debt crisis in perspective and helping to evaluate proposed solutions. I make no claim about their accuracy other than that they do not appear unreasonable.

What is Likely to Happen ?

Even though permanent default is not in the long-run interests of debtor nations, their short-run interests might be served by debt repudiation. Former Secretary of State *Henry Kissinger* has warned (*Newsweek*, 24 January 1983) :

Because the debtors can never escape their plight unless they receive additional credits, the comforting view has developed that no debtor country would dare default and wreck its creditworthiness. Unfortunately political leaders march to a different drummer than financial experts. They see the political interests of their country through the prism of their own survival. If pushed into a corner, a political leader may well seek to rally populist resentment against foreign “exploiters.” This will surely occur if the so-called rescue operation concentrates primarily on the repayment of interest. A blow-up is certain sooner or later if debtor countries are asked to accept pro-longed austerity simply to protect the balance sheets of foreign banks.

William Ogden, vice president of the Chase Manhattan Bank, recognized—as did Kissinger—that if permanent defaults are to be avoided, debtors must be “economically capable of servicing debt over the long run [and] not so committed to ideological objectives as to give little if any weight to achieving reasonable long-run performance. . . .” He told the Manhattan Institute for Policy Research (22 October 1982) that if these conditions were satisfied,

there is a *negligible* risk of permanent default or debt denial in sovereign lending because sovereign borrowers cannot cease to exist. Permanent default implies both a long-term loss of access to international private capital markets and a sharply reduced ability to utilize the international financial service network that is essential to the ordinary conduct of foreign trade. It implies that the great bulk of the international trade of a country in permanent default must be carried out on a government-to-government barter basis. Such restrictions would enormously circumscribe the pace of economic development for a country so affected. The negligible risk of permanent default arises out of the borrowing countries’ perceptions of self-interest.

One need not agree with Ogden that nations that repudiate their debts will lose access to international private capital markets. By eliminating their debts to current creditors, these nations become A-I risks to new creditors. Nonetheless, his conclusion, that debtor nations would rather not default and will not do so unless “pushed into a corner,” is reasonably assumed. Financially strained debtor nations will take measures that involve reasonable costs and risks to avoid default, particularly if their creditors will “work with them.”

The risk of formal debt repudiations also depends on the behavior of creditors. Formal defaults are not in their best interests, so the threat of default is likely to trigger offers by creditors that debtors will find difficult to refuse, or suggestions by debtors that creditors will find agreeable. Specifically, creditors faced with impending defaults will offer to or agree to delay scheduled loan principal.

Notes

Self-Assessment

1. Choose the correct options:

- (i) Which countries, besides Greece, have economies that are especially burdened by debt?
 - (a) Germany, Britain, and France
 - (b) Portugal, Spain, and Italy
 - (c) Bulgaria, the Czech Republic, and Slovakia
 - (d) Norway, Denmark, and the Netherlands
- (ii) If Greece were to default on its debt,
 - (a) the Greek government would be unable to borrow money.
 - (b) other countries' economies could suffer as well.
 - (c) lenders that Greece owes money would not be paid back.
 - (d) All of the above.
- (iii) The BEST meaning of "austerity measures" is
 - (a) periods of economic difficulty.
 - (b) legislation to prevent bankruptcy.
 - (c) Policies to cut government costs steeply.
 - (d) strict conditions on loans.
- (iv) What is the eurozone?
 - (a) a common currency union of 16 European countries
 - (b) the area affected by the "contagion" of the Greek debt crisis
 - (c) an atmospheric layer above the continent of Europe
 - (d) another name for the European Union.
- (v) What spurred the riots in Athens in October 2011?
 - (a) banks willingness to take a "haircut" on their Greek debt
 - (b) a government plan to drop the euro for the drachma
 - (c) austerity measures passed by the Greek parliament
 - (d) tax cuts imposed on wealthy Greek politicians.

28.4 Summary

- By all accounts, the external debts of Eastern bloc nations and LDCs are enormous. Government officials, financiers, economists, and the news media are urging that these countries be given help to cope. In opening hearings on "International Financial Markets and Related Problems" before the Committee on Banking, Finance, and Urban Affairs of the House of Representatives on 21 December 1982, Chairman St. Germain referred to this call for help as the "conventional wisdom." He said, "These hearings . . . come against a backdrop of news reports about impending requests for an enormous new funding of the International Monetary Fund. The conventional wisdom suggests that the Congress should quickly and quietly vote the new funds, accept the Administration's and the Federal Reserve's rationale, and ask questions later—if at all." But, should the United States help these countries? If so, how? These are the current policy questions. My purpose is to clarify the issues involved and to provide guidance to the public and to policy makers who must resolve them.
- To some observers, the United States is caught in dangerous waters where, like the straits between Scylla and Charybdis, avoiding one disaster leads to another. If defaults and political change were the only dangers, we could steer a course between the two. But, in setting our policy course, it would be a mistake to assume that these are the *only or even the greatest dangers we face*. The greater peril may lie in the side effects of policies adopted to help debtor nations cope.

Notes

- The external debts of non-OPEC developing countries grew only moderately before the quadrupling of oil prices in late 1973 and early 1974. At the end of 1973, their medium-and long-term indebtedness was about \$100 billion. After 1973, as Chairman Willard C. Butcher of the Chase Manhattan Bank observed, “the pace of lending accelerated with the world’s major banks playing the leading role.” By the end of 1982, non-OPEC developing countries’ medium-and long-term indebtedness was \$520 billion.
- The credit appetites of non-OPEC developing nations did not decline as the current account surpluses of OPEC members fell in 1978 and again after 1980. As David P. Dod of the Federal Reserve Board’s Division of International Finance pointed out (*Federal Reserve Bulletin*, September 1981) : “An increase in public-sector and private borrowing combined has been necessary in view of economic policies in developing countries that have contributed to higher, sustained deficits in the current account of their balance of payments.” The underlying policies were extremely rapid money growth and huge budget deficits continuing year after year. These policies produced inflation. With exchange rates fixed or at least sticky, inflation reduced exports and increased imports, and thus acted to increase current account deficits.
- The OECD put it this way in its 1982 *Survey* : “It appears in retrospect that certain developing countries have borrowed unwisely (as indeed have some other borrowers), using some of the resources to finance consumption and investments of dubious value, rather than to strengthen their productive potential.” They were able to do so because creditors, primarily banks, did not constrain their lending by adhering to normal prudent standards. Rather, “overeagerness by banks to lend has sometimes allowed borrowing governments to delay necessary adjustments.”
- The OECD data show that U.S. and other free world bank medium-and long-term loans other than export credits were \$182 billion, or 35 percent of the grand total, and that more than 20 percent of all loans were at “concessional” rates and terms. From an analytical standpoint, the importance of the first fact is that exposure of the free world’s banking system to defaults by Eastern bloc nations and LDCs is much less than their total indebtedness; excluding export credits, it was \$182 billion at year-end 1982. The importance of the second fact is that the burden of the external debts of developing countries cannot be gauged by looking only at the size of their debts.
- The OECD 1982 *Survey* estimates that debt service payments of developing countries on their medium- and long-term external debts reached \$131 billion during 1982, with interest payments accounting for \$60 billion and amortization for \$71 billion. For non-OPEC developing countries, interest payments were \$50 billion and amortization \$49 billion. Debt service payments by these countries to banks totalled \$48 billion.
- World trade depends strategically on the continued availability of finance. As stated in OECD’s 1982 *Survey*, “In most DAC [Developed Assistance Committee] countries, a substantial part of bank credits to LDCs is related to export financing.”

28.5 Key-Words

1. Credit appetite : The phrase 'risk appetite' is a buzz phrase in search of a single clear meaning. It means different things - often not very clearly - to different people, when they have any concept for it at all. Credit risk appetite is expressed both in terms of credit risk economic equity and in terms of the impact of credit risk on earnings volatility.

Credit risk appetite is set by the board and is described and reported through a suite of metrics derived from a combination of accounting and credit portfolio model parameters which in turn use the various credit risk rating systems as inputs. These metrics are supplemented by a variety of policies, sector caps and limits to manage concentration risk at an acceptable level.

Notes

2. External Indebtedness : External debt (or foreign debt) is that part of the total debt in a country that is owed to creditors outside the country. The debtors can be the government, corporations or private households. The debt includes money owed to private commercial banks, other governments, or international financial institutions such as the International Monetary Fund (IMF) and World Bank. Note that the use of gross liability figures greatly distorts the ratio for countries which contain major money centers, e.g. United Kingdom, because of London's role as a major money centre. Contrast Net international investment position

28.6 Review Questions

1. How will defaults lead to another Great Depression?
2. Write a short note on the indebtedness of Developing Countries.
3. How do LDCs meet debt service obligations?

Answers: Self-Assessment

1. (i) (b) (ii) (d) (iii) (c) (iv) (a)

28.7 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 29 : Functions of WTO/GATT

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Objectives

After reading this Unit students will be able to:

- Discuss the Impact of WTO on Various Aspects of Indian Economy.
- Know Geneva Framework of WTO and India.
- Explain Uruguay Round Final Act and Its Implications for India.
- Describe Social Clause in GATT.

Introduction

The General Agreement on Tariff and Trade (GATT) was established in 1948 in Geneva to pursue the objective of free trade in order to encourage growth and development of all member countries. The principal purpose of GATT was to ensure competition in commodity trade through the removal or reduction of trade barriers. The first seven rounds of negotiations conducted under GATT were aimed at stimulating international trade through reduction in tariff barriers and also by reduction in non-tariff restrictions on imports imposed by member countries. GATT did provide a useful forum for discussion and negotiations on international trade issues.

The Uruguay Round of Negotiations—8th Round of GATT

The 8th round of Multi-lateral Trade Negotiations, popularly known as Uruguay Round (since it was launched at Punta del Este in Uruguay) was started in September 1986 at a special session of GATT Contracting Parties held at Ministerial level. World trade had undergone a structural change during the four decades since the establishment of GATT in 1948. The share of agriculture in world merchandise trade which was 46 percent in 1950 had declined to 13 percent in 1987. Simultaneously, the structure of employment and the contribution of various sectors to GDP of developed countries had undergone a qualitative change. The share of the service sector in the GDP of developed countries was rapidly increasing. It ranged between 50 to 70 per cent of the GDP by 1986. The share of employment in the service sector was also increasing. For instance, in USA, services represented two-thirds of GDP and employed over 70 per cent of work force. In 1980, US exports of services amounted to \$ 35 billion. In the commodity sector, the comparative cost advantages had moved in favour of Japan and several other newly industrialised nations. These factors impelled developed countries, under the leadership of USA to take the initiative of bringing service sector into trade

Notes

negotiations.

Thus, the Uruguay Round (UR) contained the mandate to have negotiations in 15 areas. In Part I, negotiations on Trade in Goods were to be conducted in 14 areas and in Part II negotiations on Trade in services were to be carried out.

Part I (Trade in Goods) declaration in UR contained the following : (1) Tariffs, (2) Non-tariff measures, (3) Tropical products, (4) Natural resource-based products, (5) Textiles and clothing, (6) Agriculture, (7) GATT articles, (8) Safeguards, (9) MTN (Multilateral Trade Negotiations) agreements and arrangements, (10) Subsidies and countervailing measures, (11) Dispute settlement, (12) Trade Related Aspects of Intellectual Property Rights (TRIPs), (13) Trade Related Investment Measures (TRIMs) (14) Functioning of the GATT systems (FOGS).

Thus, besides the traditional GATT subjects such as tariff and non-tariff barriers and improvement in GATT rules and disciplines on subsidies and countervailing measures, anti-dumping measures etc., certain new areas such as Trade Related Aspects of Intellectual Property Rights (TRIPs), Trade Related Investment Measures (TRIMs) and Trade in Services were included for the first time for negotiations.

These negotiations were expected to be concluded in four years, but on account of differences in participating countries on certain critical areas, such as agriculture, textiles, TRIPs and anti-dumping measures, agreement could not be reached. To break this deadlock, Mr. Arthur Dunkel, Director General of GATT compiled a very detailed document, popularly known as Dunkel Proposals and presented it before the member-countries as a compromise document. The Dunkel Proposals culminated into the Final Act on December 15, 1993 and India signed the agreement along with 117 nations on April 15, 1994.

29.1 Impact of WTO on Various Aspects of Indian Economy

India, being a founder member of the WTO, has been following the WTO decisions, but as a consequence, certain effects on the Indian economy have become evident.

1. Effects on Indian Industry

WTO has been urging India to lower import duties, remove controls on consumer goods imports, reduce quantitative restrictions, etc. Under the Uruguay Round Agreement, India offered to reduce tariffs on capital goods, components, intermediate goods and industrial raw materials to 40% in case our tariffs were above that percentage; to 25% in case our tariffs were between 25 to 40 per cent and to bind the tariff ceiling at 25 per cent in case our tariffs were below that percentage. This reduction in tariffs was to be achieved by the year ending 2000.

Since India scrupulously followed the agreement, the tariffs have been reduced year after year to conform with the WTO provisions. As the protection afforded by import duties gradually disappeared, Indian industry had to face increasing competition from foreign goods. Confederation of Indian Industry (CII), the apex body expressed its disapproval against duty-free status of capital goods sector. As a result, CII estimated that indigenous capital goods industry on a conservative estimate lost orders worth ` 5,000 crores from foreign countries. Instead of ensuring level playing field, indigenous industry has to pay excise, sales tax, octroi, turnover tax while imported goods are allowed duty-free access to our market. Not only the entire manufacturing industry is faced with a crisis, even machine tools industry, gensets and boiler producers are put at a serious disadvantage. Consequently, imports of finished products are displacing indigenously produced products. As a result, many industrial units are being closed and cheap imports have become an important cause of recession in Indian industry.

India was maintaining quantitative restrictions in the form of quotas, import and export licences on 2,700 agricultural commodities, textile and industrial products. United States along with Australia, New Zealand, Switzerland, European Economic Community and Canada complained to the WTO Dispute Settlement Machinery that these QRS were inconsistent with WTO norms. The dispute settlement panel gave its verdict against India. India went in appeal, but the WTO panel on 23rd August 1999 rejected India's appeal against QRs.

As a result, although India could continue QRRs till March 2003, the process was hastened and

QRS on all items were removed. This has opened the floodgates for foreign consumer goods to enter the Indian market, thereby seriously damaging Indian industry.

Impact of import of Second Hand Cars in India : The Government of India allowed the import of second hand cars into India. This policy has seriously hit Indian automobile industry. Mr. Rahul Bajaj described this as “anti-national and anti-India Act”. In fact, experience the world over has shown that wherever second hand imported cars are allowed, they seriously damage domestic industry. Japanese used cars virtually destroyed New Zealand car industry. Even Mr. Phil Spender, Managing Director, Ford India reacting to the policy of permitting used cars said: “If the government asks us what to do (about the used cars), I’ll be the first to volunteer ways to keep used cars imports out of India”. Even other CEOs of MNCs who have invested in the Indian automobile market expressed similar sentiments. Mr. Richard Swano, M.D. General Motors is of the opinion that the import tariff on used cars should be 100% and not 40-50 per cent.

Similarly, if India allowed the import of used machine tools, it is likely to have serious repercussions on capital equipment manufactures.

Import of Chinese Goods : In recent years, Chinese goods are flooding the Indian markets. They include battery cells, cigarette lighters, locks, car stereos, energy saving lamps, VCD players, wrist watches, toys, fans, electric ovens and a large variety of consumer articles. Since China has become a member of the WTO, this is going to create another problem because action against Chinese dumping of goods can be taken only within WTO provisions. Not only that, Chinese goods are coming through normal channels of trade, they are also being smuggled via Nepal at zero duty. A very porous border from Nepal has increased clandestine imports from China. Both regular and clandestine imports from China are making serious forays into the Indian markets, thus hurting quite a large range of consumer goods industries. It is very difficult to prepare an anti-dumping case against China, since it is virtually impossible to obtain information required from Chinese sources due to non-transparent nature of Chinese economy. Dr. B .R. Sabade is of the view. “It is extremely difficult to make a case about dumping of Chinese goods. Government can impose a preliminary duty, introduce a trigger price mechanism or declare China as a non-market economy”.

2. Impact of WTO on SSI Units

WTO agreements do not discriminate on the basis of size of industries or enterprises. In the WTO regime, reservations may have to be withdrawn, preferential purchase and other support measures may not be available and thus SSIs have to compete not only with the large units within the country, but also with cheap imported products. SSIs are thus losing their markets to cheap imported products. Consequently, a very large number of SSI units are becoming sick or have closed down. Thus, the SSI sector which accounts for 40 per cent of manufacturing output, 50 per cent of employment and over 33 per cent of exports is in jeopardy. Next to agriculture, this sector is the principal source of employment accommodating 18 million persons. The rule of survival of the fittest is being applied to this sector and in their game, only a few able ones will be able to survive. Dumping of Chinese goods has seriously affected SSI sector. The real difficulty with the SSI sector is that it does not have adequate resources to prepare the case for anti-dumping duties in view of the prohibitive costs of anti-dumping investigation. The SSIs can not collect detailed information on individual products required by the anti-dumping directorate to establish a complete case. Consequently, small industries continue to suffer due to such dumping policy.

Not only that, the entry of multinationals in ordinary consumer goods like ice cream, **agarbatti** manufacture, food processing, mineral water etc. is also adversely affecting the SSI sector since these were the traditional areas of this sector. In soft drinks, the entry of powerful Coca Cola and Pepsi have eliminated practically all small units engaged in the manufacture of aerated water. MNCs are not interested in hi-tech products. Rather they prefer low technology, quick profit yielding and large volume products with regular demand throughout the year. In the name of consumer interests, MNCs continue to swallow SSIs and eliminate them from the market.

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3. **Double Standards of Developed Countries**

The basic question is : Developed countries demand so many concessions and reduction of tariffs from the developing countries, but are they encouraging free flow of trade, capital and technology across states; or are they using globalisation to their advantage ? It would be of interest to consider certain issues :

Unfair Game in Agreements on Textiles : India is quite competitive in textiles. But developed countries through various protectionist measures deny access to cost efficient textile producers. These measures take the form of anti-dumping duties, unilateral change in the rule of origin and unjustifiable foisting of environmental issues. All these measures are taken to protect domestic industry in developed countries and thus, these measures hamper free flow of Indian textile exports.

Developed countries have proposed ten long years to reduce quotas in their domestic textile industries, but they pressurise the developing countries to reduce their tariffs, remove quantitative restrictions, introduce Intellectual Property Rights (IPRs) etc. immediately. Obvious developed countries play an unfair game so far as textile agreements are concerned.

The United States has signed WTO agreements with the proviso that all such agreements will have to be passed by the US Congress, being a sovereign body. There is another assurance given by the US President to the Congress. In case, the decisions of Dispute Settlement Machinery of WTO go against the United States, they will be reviewed by US justices. If they find the decisions unfair, the US has unilaterally reserved for itself right to walk out of the WTO.

Criticising this big brother like attitude, some commentators believe that the rule makers are not going to tolerate being over-ruled. Many of the US laws like Section 301 of US Trade Act is clearly a violation of WTO agreement. This matter was considered by the Dispute Settlement Panel of WTO which gave its verdict that those laws are WTO compliant. This has emboldened the US to continue to use unilateral action against countries that are not considered by US administration as compliant with US trading interests. It passes one's comprehension how the US Congress should be considered as a super-body over the WTO, while the parliaments of other members of the WTO, especially the developing countries, are denied this right. Although sixteen countries petitioned against the US, but since WTO has supported the US position.

Fourthly, reduction and elimination of tariffs in non-agricultural goods and other barriers, particularly on products that are important to developing countries, is mother major gain for India.

Fifthly, WTO ministerial declaration has stressed the need for establishing a system of registration for wines and spirits known by the region where they are made like champagne. Extension of this geographical indication to other items like basmati rice will also be looked into.

Lastly, US agreed to review anti-dumping rules, but there is a fear that this may not be achieved unless the developing countries build up strong pressure on the US to do so.

Gains for India

The Commerce and Industry Minister who represented India at the Doha WTO Conference succeeded in sending a strong message that India can no longer be ridden roughshod over by the developed countries, more especially US and the European Union. The biggest gain was that WTO chairman declared that negotiations on Singapore issues—investment, competition, labour standards and environment would be held only after an "explicit consensus" was reached at the Fifth Ministerial. Such a consensus may not be easy to emerge even in 2003, keeping in view the reservations expressed by the developing nations at the Doha Conference.

Another major gain was that instead of opening discussion on new issues, it was agreed under pressure from India and other developing countries that it would be more advisable to undertake an exercise on a more complete implementation of Uruguay Round recommendations. This would involve review of bottlenecks and constraints arising out of the roadblocks in the way of fulfillment of their obligations by the developed countries. This would be particularly directed towards the US, Japan and countries of the European Union to open markets to products in which the developing countries enjoyed a comparative advantage.

The anti-dumping laws of the US were another painful thorn in the flesh of countries like India in respect of steel and other allied items of manufacture. This was taken up strongly by India and other member countries. The pressure built on US was so strong that the US was forced to promise a toning down of its policies and I legislation pertaining to anti-dumping laws.

Now that the WTO has appointed a 9-member committee to which the key issue of Trade Related Intellectual Property Rights (TRIPS) has been referred to, it is hoped that the WTO will find a structural change in its functioning and decision-making. The agenda, henceforth, will not be set by the US and European Union (EU), but the developing countries would also be able to air their views more freely so that the WTO does not operate to the dictates of US and the European Union, but becomes a more democratic forum, in the real sense of the term. India and Brazil are members of the committee and they would be able to place the view of developing countries with the same strength with which they presented and articulated the arguments in the WTO Conference at Doha.

29.2 Geneva Framework of WTO and India

India along with the group of G-20 countries took the initiative to voice the strong feeling of the majority of developing countries at Cancun in 2003. Mr. Arun Jaitley, the then Commerce and Industry Minister speaking on the 10th September 2003 stated :

“The plight of farmers in developing countries was directly linked to the level and kind of subsidy extended to farmers in the advanced countries.”

“OECD governments support sugar producers at the rate of \$ 6.4 billion annually—a sum nearly equal to all developing countries exports. Subsidies to cotton growers in a developed country totalled \$ 3.7 billion last year, which is thrice the country’s foreign aid to Africa. The agricultural subsidies provided by OECD countries are more than six times what they spent on official development assistance for developing countries.” It was alleged that the OECD countries provided domestic support of the order of \$ 320 billion to their farmers, thus enabling them an unequal bargaining power against farmers of developing countries. OECD farmers were thus able to push subsidised agricultural exports to the developing countries impacting adversely on the interests of farmers in developing and least developed countries. The Cancun round ended in fiasco because of the stubborn attitude of the representatives of US and EU countries, not to discuss reduction of agricultural subsidies, but to push the Singapore issues, viz. investment, competition, government procurement and trade facilitation. Since India, Brazil, China, Indonesia, Egypt, Malaysia, Philippines, Bangladesh including other developing countries voiced their strong opposition to the Cancun (2003) draft, the negotiations ended in total failure.

At the Geneva meeting in July 2004, efforts were made to discuss the concerns of the developing countries. India was represented by Commerce and Industry Minister Mr. Kamal Nath. The Indian Government has claimed that it has been able to extract substantial gains on the export of industrial goods and services. It has also been able to safeguard the interests of the farmers. The major gains claimed are :

Firstly, out of four contentious issues which the developed countries wanted to be included in the Doha Round, three issues, namely, investment, competition policy and government procurement have been dropped from the agenda. Only trade facilitation will be taken up for consideration.

Secondly, developed countries have agreed to do away with direct and indirect subsidies provided to their exports. They have also promised to bring about substantial reduction of domestic support provided to their farmers. In particular, the Geneva framework requires that there would a minimum reduction in such support to 80 per cent of the pre-existing levels in the very first year and throughout the period of implementation.

Thirdly, the developed countries have recognised the need for special and differential treatment for developing countries in terms of quantum of tariff reduction, tariff rate quota expansion, number and treatment of sensitive products and the length of implementation period.

Fourthly, developing countries have the right to identify the number of special products, based on

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the criteria of food security, livelihood security and rural development needs, which would be eligible for flexible treatment.

Lastly, a Special Safeguard Mechanism has been provided in the framework against disruptive imports, the details of which are to be worked out. The developed countries have also accepted the adoption of less-than-full reciprocity principle for developing countries.

Commerce Minister Kamal Nath recounting the achievements at Geneva in the new WTO framework listed the following :

1. Zero-to-zero tariff approach will not be binding on all sectors. It implies that India can choose the sectors and products whose zero-duty imports will be allowed. This will enable India check a flood of imports in areas where we are not competitive. This will help to safeguard the interests of domestic industries.
2. On the agricultural front, the biggest achievement seems to be the two windows open for developing countries like India to place the products of their choice in Special Products and Sensitive Products windows. Special product windows can be used by developing countries to block flooding of imports of a particular product. The Commerce Minister believes that these two windows will help India to effectively block US and EU access to our agricultural markets.
3. On the question of promoting cost-effective quality services, the framework gives a bigger push to Mode-4 Services. However, the Government concedes that restrictive policy regime vis-a-vis services may hinder their growth.

On balance, it may be stated that WTO Framework Agreement has made a break-through in world trade negotiations. There are significant gains made, but the moot question is : Will the developed countries permit the developing countries to realise these gains in the near future ? The critics are not very sure because as has been argued by former Commerce Minister Arun Jaitley, C.P. Chandrasekhar and Jayati Ghosh of JNU, Devinder Sharma and Rupa Chanda of IIM Bangalore : for, the devil is in the details. Members have only agreed to a framework. The actual modalities need to be worked out. It is argued that India has pinned down developed countries to reduce and eliminate export subsidies. But no date has been specified. The time table for this will be negotiated in Hong Kong. So, at the present moment, this can give us a notional satisfaction.

The subsidies take three forms : (a) Amber Subsidies are intended to encourage more production; (b) Blue Box provide incentives to limit production; and (c) Green Box subsidies are provided in the name of environment and livestock. The total subsidies provided by the developed countries are \$ 320 billion per year or nearly \$ 1 billion per day. The most unfortunate part of the negotiations is that the Blue Box subsidies have been legitimized. The declaration states : "Members recognised the role of the Blue Box for promoting agricultural reforms." Similarly, the declaration accepts that the Green Box subsidies will not in future be subject to any reduction in subsidies. This implies that we have shut the doors so far as reduction in Blue Box and Green Box subsidies is concerned. Arun Jaitley in a sharp comment argues : "We have painted ourselves in a corner by legitimizing the existence of Green Box and the Blue Box. We have not only hurt ourselves in the Doha round but accepted a principle that will continue to haunt us in future rounds.... We can rejoice that there would be a capping on the expanded Blue Box and an overall reduction." The developed countries can feel relieved that the Green Box is wholly outside any reduction commitment and jugglery of box shifting would effectively prevent any reduction in the quantum. The colour of subsidies may change but will the quantum be substantially reduced ?" (*Hindustan Times*, August 11, 2004). Critics, therefore, are of the opinion that the developed countries have emerged as the winners in this game of negotiations and have been able to extract a framework which would strengthen the bargaining position of US and EU in the future round of negotiations.

However, the inclusion in the 'Sensitive' or 'Special Product Category' will need the approval of the WTO. This requires evidence to prove that inclusion in Special Category is based on the criteria of food security, livelihood security and rural development needs or is based against disruptive imports. For instance, India produces about 250 crops whereas Europe does not grow more than 25 crops. Devinder Sharma is right when he argues : "For Europe, getting a score of crops protected under 'sensitive' and 'special products' will be justified. But to expect WTO to accord 'special product' status to over 200 crops from India would be asking for impossible." (*Business Line*, August 5, 2005)

Another area which is very important for India is the non-agricultural market access (NAMA) which has a high potential to increase our share in exports to US and EU. The broad modalities proposed in the framework have not been accepted by members. In the area of services in which India has strong interest, there is total absence of specificity. This is very disappointing.

Lastly, it has to be noted that two stalwarts among G-20 who spearheaded the interests of the developing countries at Doha and later at Cancun, joined “by invitation” the FIPs groups (Five Interested Parties) which included US and EU representing the developed countries, Australia representing the Cairns group of agricultural exporters with India and Brazil representing the developing countries. All this was intended with the clear objective that if India and Brazil can be softened, then it would become much easier to make inroads into the G-20 group. Chandrasekhar and Jayati Ghosh lament : “These claims of success notwithstanding, the creation of FIPs, the inclusion of India along with Brazil, in the grouping and the nature of the framework agreement that FIPs was instrumental in forging, has weakened the developing country camp, which G-20 was expected to strengthen.” (*Business Line*, August 10, 2004) This explains why India and Brazil did not take up the specific cause of African nations related with the elimination of cotton subsidies. It is really amazing that US supports its 25,000 cotton growers to the extent of \$ 3.7 billion. Average subsidy per grower works out to be \$ 1,48,000 which in 2002 is more than 4 times the per capita GDP in United States. The Cancun talks were deadlocked on this issue. The EU has withdrawn aid to Kenya, the most vocal of the African countries to the tune of \$ 60.2 million on July 21, 2004 on the pretext of ‘bad governance’ Although the framework pays lip sympathy and “recognises the vital importance of this sector to certain LDC members” but instead of taking specific decision on the issue “promises to work to achieve results expeditiously.”

To conclude, it may be pointed out that though developed countries have agreed to reduce subsidies, yet when the issue is probed in detail, it comes out very clearly that the developed countries have been successful in creating an illusion, without conceding anything substantial. The Framework Agreement leaves several vital issues for further negotiations. By creating FIPs, the developed countries have been able to break the resistance of two most powerful advocates of the interests of developing countries, thereby weakening the G-20 camp. In the light of all these developments, there is no cause for jubilation over the achievement of WTO Framework Agreement at Geneva.

Bilateral and Regional Cooperation

We understand that WTO continues to be at the center of India’s trade negotiation. Given the fact that it is difficult to arrive at a consensus on contentious issues related to trade in goods, services and investment, and regional cooperation would continue to feature for a long time in world trade, India has been active in regional and bilateral trading arrangements in recent years. RTAs, which help in expanding India’s export market, are considered as “building blocks” towards the overall objective of trade liberalization and multilateral negotiations.

Some of the recent developments with regard to Bilateral and Regional Trade Agreements (whether concluded or under negotiations) are listed as follows :

1. **Indian-ASEAN CECA (FTA) :** A Framework Agreement on Comprehensive Economic Cooperation between ASEAN and India was signed by the Prime Minister of India and the Heads of Nations/Governments of ASEAN members during the Second ASEAN-India Summit on October 8, 2003 in Bali, Indonesia. The agreement on Trade in Goods was signed on August 13, 2009. The India-ASEAN Trade in Goods Agreement has come into effect on January 1, 2010. The Agreements provides for elimination of basic customs duty on 80 per cent of the tariff lines accounting for 75 per cent of the trade in a gradual manner. Negotiations towards trade in a services and investment are expected to conclude by August 2010.

The signing of the ASEAN-India Trade in Goods Agreement paves the way for the creation of one of the world’s largest free trade areas (FTA) – market of almost 1.8 billion people with a combined GDP of US\$ 2.75 trillion. The ASEAN-India FTA will see tariff liberalization of over 90 percent of products traded between the two dynamic regions, including the so-called “special products,” Such as palm oil (crude and refined), coffee, black tea and pepper. Tariffs on over 4,000 product lines will be eliminated by 2016, at the earliest.

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Critics of this agreement argue that liberalising trade in special products like palm oil, coffee, tea, coconut etc will have serious implications on livelihood of farmers engaged in the production of these commodities.

2. **India-South Korea Comprehensive Economic Partnership Agreement (CEPA) :** The Agreement was signed on August 7, 2009. This happens to be India's first FTA within OECD country. Under this agreement tariff will be reduced or eliminated on 93 per cent of Korea's tariff lines and 85 per cent of India's tariff lines.
3. **India-Japan CEPA :** Agreements in goods, services and investment are under negotiation. So far more than a dozen meetings of Joint Task Force have taken place in this regard.
4. **India-EU Trade and Investment Agreement :** A broad-based bilateral Trade & Investment Agreement is being negotiated with the EU. Negotiations cover trade in goods, services and investment, sanitary and phyto sanitary measures, technical barriers to trade, rules of origin, trade facilitation and customs cooperation, competition, trade defence mechanism, Government procurement, dispute settlements, Intellectual Property Rights (IPR) and Geographical Indications (GIs).

There are many issues of concern in the EU-India FTA. According to the critics this FTA is going to have an adverse impact on livelihood of Indian people. According to a study commissioned by the European Commission itself, the FTA would increase EU exports to India by \$17-18 billion while India's export would increase by around \$5 billion only. The impact of reducing as many as 95% of our import duties down to zero or close to zero percent in seven years will result in import surges—especially since EU agriculture imports in particular are heavily subsidized in a wide range of products such as sugar, dairy, tomato paste, poultry, to name a few. Because the EU FTA will do nothing to curb EU subsidies—farmers and farm workers will be hard hit by our steep reduction of import duties. Moreover, a rapid reduction of import duties, combined with ease of entry of European agro-processing and retail firms through the services and investment chapter of the FTA will dramatically impact how food is produced and sold in this country. Indian farmers and workers will not be able to bargain against the power of Europe's multinational retail firms.

29.3 WTO

The World Trade Organization (WTO) is an organization that intends to supervise and liberalize international trade. The organization officially commenced on January 1, 1995 under the Marrakech Agreement, replacing the General Agreement on Tariffs and Trade (GATT), which commenced in 1948. The organization deals with regulation of trade between participating countries; it provides a framework for negotiating and formalizing trade agreements, and a dispute resolution process aimed at enforcing participants' adherence to WTO agreements, which are signed by representatives of member governments and ratified by their parliaments. Most of the issues that the WTO focuses on derive from previous trade negotiations, especially from the Uruguay Round (1986-1994).

The organization is attempting to complete negotiations on the Doha Development Round, which was launched in 2001 with an explicit focus on addressing the needs of developing countries. As of June 2012, the future of the Doha Round remains uncertain: the work programme lists 21 subjects in which the original deadline of 1 January 2005 was missed, and the round is still incomplete. The conflict between free trade on industrial goods and services but retention of protectionism on farm subsidies to domestic agricultural sector (requested by developed countries) and the substantiation of the international liberalization of fair trade on agricultural products (requested by developing countries) remain the major obstacles. These points of contention have hindered any progress to launch new WTO negotiations beyond the Doha Development Round. As a result of this impasse, there has been an increasing number of bilateral free trade agreements signed. As of July 2012, there are various negotiation groups in the WTO system for the current agricultural trade negotiation which is in the condition of stalemate.

WTO's Current Director-General is Pascal Lamy, who leads a staff of over 600 people in Geneva, Switzerland.

Some of the important functions and objectives of WTO are :

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Functions of WTO

The former GATT was not really an organisation; it was merely a legal arrangement. On the other hand, the WTO is a new international organisation set up as a permanent body. It is designed to play the role of a watchdog in the spheres of trade in goods, trade in services, foreign investment, intellectual property rights, etc. Article III has set out the following five functions of WTO;

- (i) The WTO shall facilitate the implementation, administration and operation and further the objectives of this Agreement and of the Multilateral Trade Agreements, and shall also provide the frame work for the implementation, administration and operation of the plurilateral Trade Agreements.
- (ii) The WTO shall provide the forum for negotiations among its members concerning their multilateral trade relations in matters dealt with under the Agreement in the Annexes to this Agreement.
- (iii) The WTO shall administer the Understanding on Rules and Procedures Governing the Settlement of Disputes.
- (iv) The WTO shall administer Trade Policy Review Mechanism.
- (v) With a view to achieving greater coherence in global economic policy making, the WTO shall cooperate, as appropriate, with the international Monetary Fund (IMF) and with the International Bank for Reconstruction and Development (IBRD) and its affiliated agencies.

Objectives of WTO

Important objectives of WTO are mentioned below:

- (i) to implement the new world trade system as visualised in the Agreement;
- (ii) to promote World Trade in a manner that benefits every country;
- (iii) to ensure that developing countries secure a better balance in the sharing of the advantages resulting from the expansion of international trade corresponding to their developmental needs;
- (iv) to demolish all hurdles to an open world trading system and usher in international economic renaissance because the world trade is an effective instrument to foster economic growth;
- (v) to enhance competitiveness among all trading partners so as to benefit consumers and help in global integration;
- (vi) to increase the level of production and productivity with a view to ensuring level of employment in the world;
- (vii) to expand and utilize world resources to the best;
- (viii) to improve the level of living for the global population and speed up economic development of the member nations.

29.4 Uruguay Round Final Act and Its Implications for India

A big offensive was launched by the Left Parties, the Janata Dal and the Bharatiya Janata Party against the acceptance of Dunkel Proposals. The basic thrust of the attack was that the Government has surrendered its sovereignty under pressure from the US Government and the multinationals. There is no doubt that some of the criticisms were politically motivated and value-loaded, and it would be correct to say that to some extent, they were misleading. On the other hand, there is no doubt that the claim of the Government of India, that as a consequence of UR agreement, Indian exports would rise at the rate of \$ 2 billion per year is exaggerated.

It would be appropriate to study the implications of GATT agreement in various areas :

A. Reduction in basic duty and export subsidies

On tariffs, India has promised to reduce the basic duty by 30%. This duty reduction was to be effected over a period of 6 years and was to cover raw materials, intermediates and capital goods. This,

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however, did not include agricultural products, petroleum products, fertilizers and some non-ferrous metals like zinc and copper. These tariff reductions were also a part of the package of economic reforms undertaken in India and had had been recommended by the Chelliah Committee.

The GATT agreement stipulates that anti-dumping proceedings will be terminated if the volume of dumped imports from a particular country is less than 1% of the domestic market. The only exception is instances where dumping countries collectively account for more than 2.5 per cent of the domestic market. Anti-dumping proceedings will be terminated if the margin of dumping is less than 2%. These clauses do help India to protect its exports from anti-dumping investigations. It would have been much better for India, had the figure of dumped imports as a share of domestic market been more than 1%.

Effect of TRIPS on the Indian Economy

Some critics are of the view that Trade-Related Intellectual Property Rights (TRIPs) as embodied in the GATT agreement will have disastrous effects on our economy, more especially in two vital areas i.e., pharmaceuticals and agriculture. Both these areas affect the well-being of the people.

TRIPs requires an understanding about the scope of the new patent regime. Under TRIPs patents shall be available for any invention whether product or process in all fields of industrial technologies.

Patent protection will be extended to micro-organisms, non-biological and micro-biological processes and plant varieties. This implies that the entire industrial and agricultural sectors and to an extent bio-technology sector will be covered under the patent provisions.

A very dangerous provision has been introduced in patent protection and this relates to changing the philosophy of the patent regime whereby products, imported or locally produced, will be covered under patent protection without any discrimination. This implies that the patent regime not only tries to establish manufacturing monopoly but it also intends to establish import monopoly. In this situation, the patent-holder would resort to imports only and the national government would not be able to exercise any price control on the imported products. This provision will help the patent-holder to defy all price control measures.

Patent Regime and Pharmaceuticals and Drugs

Patent regime, the critics are of the view, will affect the drug prices seriously. Currently, these prices are very low in India—thanks to the Indian Patent Act, 1970. Since the enforcement of this Act, Indian pharmaceutical and drug industry progressed rapidly and was able to provide life saving drugs very cheaply. Besides this, it was able to earn foreign exchange to the tune of ` 2,386 crore in 1996-97.

Under the new patent regime, according to Mr. B.K. Keayla, Convener, National Working Group on Patent Laws, about 70% of the drugs will be covered under the new patent laws. Consequently, under TRIPs heavy payments will have to be made to patent holders and consequently, it is feared that this would result in the prices of drugs going up 5 to 10 times. At present, only 30 per cent of the population can afford modern drugs and if the GATT agreement is accepted, another 20 per cent of the population will lose health cover, leaving only 10 per cent population access to modern drugs. Such a policy has dangerous implications for the health of our population.

Mr. B.K. Keayla gives two specific examples about drugs marketed by the same MNC in different countries. In India, there is a process patent of these drugs, but in other countries, they are covered under product patent. The price differential is so large that it compels one to rethink whether the introduction of product patent in India, would not push the prices of drugs in India as well to very high levels.

There is a large body of opinion which does not subscribe to the Government view. In a country, which is plagued by mass poverty, it is very essential that life saving drugs and other basic medicines should be available at affordable and low price. This can be achieved only through control over the prices of drugs. The GATT agreement tends to alter it. There is a genuine fear that drug prices will rise, more so in view of the fact that the Multinationals are able to corner excessive profits in other countries, but are not able to penetrate in India so far as price control on drugs is concerned. The

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Government has to be very cautious. There is no doubt that the government has a period of 10 years to shift to product patent regime in drugs, but the multinationals can create situations even before that so as to force the government to amend the Patents Act earlier or create conditions of artificial scarcity. The drug market is even now facing this phenomenon of the disappearance of a particular drug for sometime in the market and its reappearance later at a higher price. During 1994-95 and 2000-2001 taken together, price index of drugs and medicines increased by 87.1 per cent as against the overall increase in price index by 35.9 per cent. This rise is taking place despite drug price control, but in case freedom is given to multinationals, there is a fear that drug prices would rise at a much sharper rate, hitting the health cover of the common man. In a very angry comment, Mr. B.K. Keayla writes : "The argument that the new patent regime would affect only 10-15 per cent of turnover is totally wrong and silly.

Mr. Bibek Debroy does not share the pessimism of Mr. B.K. Keayla. He believes that there is a lot of exaggeration about the supposed increase in drug prices. Arguments based on cross-country comparisons should not be taken seriously. The Essential Drugs List published by the World Health Organization (WHO) has a little over 250 entries. Less than 10 per cent of these are covered by patents world-wide. The rest have all become generic and there is no need to grant a fresh round of patent protection to these. Mr. Bibek Debroy, therefore, concludes : "The price rise will be pertinent for these existing drugs, but not for the new drugs that arrive on the international market every year. If the patent protection is not changed, these new drugs may not be marketed in India at all.

However, the critics do not agree to the defence given by the Government or certain economists. Multinationals do have the capacity to create scarcities or withdraw the existing drugs and get them registered under new product patents. The Government has, therefore, to continue with the Drug Price Control Order so far as essential drugs are concerned. It has also to regulate the prices of other drugs, failing which medical treatment in many ailments will be beyond the reach of the poor and middle classes. Already, the situation has been changing in this direction with the growing trend of privatization in health.

Patent or Patent-like Protection in Agriculture

Dunkel Final Act has made important changes concerning patenting or granting patent-like protection in agriculture. The principal feature of the TRIPs text demands that protection be extended to micro-organisms, non-biological and micro-biological processes and plant varieties. Article 27 of TRIPs Text states that India may provide for protection of plant varieties either by patent or by an effective **sui generis** system or by a combination thereof. This system shall be enforced at the end of the transitional period of 10 years.

It may be emphasized that traditionally, under GATT, most patent systems have excluded sectors such as agriculture, food and health outside its orbit. Some developed countries created a separate **sui generis** system which granted intellectual property rights to plant breeders. This was codified in 1961 under the International Union for the Protection of New Varieties of Plants (UPOV). In 1978, USA was allowed to join UPOV members union without changing its laws. However, UPOV has continued to be an organisation mainly of the developed countries.

Under the UPOV convention of 1978, the plant breeder of a new variety had an almost total monopoly of producing and marketing his variety of seeds through trade channels. His right under TRIPs was subject to only two exceptions : (1) The Breeder's exemption, which permitted any other breeder to use the protected variety for breeding purposes; and (2) the Farmer's Exemption which gave the farmer the right to retain protected seeds from his harvest to plant the next crop. This convention was limited to 24 plants and the period of protection ranged from 15 to 18 years.

This convention was modified in 1991 and the revised UPOV treaty empowers higher standards of protection to plant breeders, thereby strengthening the monopoly rights of the breeder of a new variety. Under the revised UPOV treaty (1991), the breeder had to pay royalty to the Plant Breeder Right (PBR) holder, if his new variety resembled the protected variety in any trait. Similarly, the farmer was not automatically permitted to use farm-saved-seeds of protected variety to sow the next crop. He had either to pay compensation for use of seeds or obtain the approval of the breeder. Most

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of the Plant Breeders were giant MNCs who work with the sole intention of profit maximization. They would be reluctant to grant approvals to farmers, who would otherwise be forced to purchase seeds from MNCs. Under UPOV (1991), all plant genes and species would be provided protection for a period ranging from 20 to 25 years.

Moreover, UPOV (1991) stipulates that **sui generis** system to be created should be “effective” so that it provides real protection to PBR-holders. But who will judge the effectivity of the law framed by India for the purpose. The answer is : The Council of TRIPs under article IV.5 of the agreement establishing Multi-lateral Trade Organisation (MTO).

The Government of India has been under constant attack that the **sui generis** (Plant Breeder Rights) system is against the interests of the farmers and would act as an impediment to the development of new plant varieties. Mr. Pranab Mukherjee, former Minister of Commerce, stated in this connection: “While reasonable protection should be provided to plant breeders who develop new varieties under the Agreement, the right of farmers and researchers will also be fully protected. In the **sui generis** legislation which is being drafted for the purpose, the interests of the farmers will be safeguarded.”

There is a lot of divergence between what the Government says and what it is doing in this regard. This is evident from the draft Plant Varieties Act, 1993 circulated by the Government in February 1994.



Notes

The **sui generis** system under which PBR-holders are granted rights is just a change in nomenclature in place of the patent system.

Patent (Amendments) Bill and Seeds Act (2004)

The Government introduced the Patent (Third Amendment) and Seeds Act (2004). In the name of quality of seeds, the Government has stipulated that seed growers should get their seeds patented. In case, this is not done, the farmers will not be allowed to exchange their seeds with other farmers. Compulsory registration of seed combined with the power to seed inspectors to enter and search premises (which implies in the case of Indian farmers farmers’ fields and huts) is the hallmark of this legislation.

It would be worth while to examine the implications of this policy for Indian farmers.

Firstly, for hundreds of years, farmers have sown seeds, harvested crops and exchange seeds with farmers in the neighbouring areas. These indigenous varieties are the basis of our ecological and food security. For instance, coastal farmers evolved salt resistant varieties. Bihar and Bengal farmers have evolved food resistant varieties. Drought resistant varieties were developed by farmers of Rajasthan. Similarly, farmers in the Himalayas have developed frost resistance varieties. Indian farmers, being not highly educated do not understand the complications involved in getting their seeds registered. The Multinational agents can buy these seeds and get them registered prior to our farmers. They will then be in a position to file cases against these farmers for bartering these seeds with their neighbours.

International experience also strengthens this fear. Dr. Vandana Shiva has examined this question in depth. She quotes a case filed by the British Society for Plant Breeders in 1995 which decided to proceed with a high profile court case against a farmer to make selling of potato seeds by farmers to other farmers as illegal in Scotland. The farmer was forced to pay a fine of £ 30,000 as compensation to cover royalties lost to the seed industry by direct farmer-to-farmer exchange. Existing United Kingdom and European Union laws thus prohibit farmer from exchanging uncertified seeds.

The same experience is repeated in U.S. to prevent farmer-to-farmer exchange as illegal. As grow, a commercial company filed a suit against winterboers on the ground that their intellectual property rights (IPRs) were violated by the Winterboer farmers who in their 500-acre farm in Iowa were growing seeds. The Winterboers pleaded that under the Plant Variety Act of US, farmers had the right to sell

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seed, provided both the farmer and the seller were farmers. They won the case. Subsequently, under pressure from seeds industry, the Plant Variety Act was amended and the farmer's right to save and exchange seeds was declared illegal.

Dr. Vandana Shiva on the basis of these experiences concludes : 'The Seed Act in designed to 'enclose' the free economy of farmers' seed varieties. Once farmers' seed supply is destroyed through compulsory registration by making it illegal to plant unlicensed varieties, farmers are pushed into dependency on corporate monopoly of patented seeds. The Seed Act is therefore the hand maiden of the Patent Amendment Acts, which have introduced patent on seed.

Secondly, it may be noted that prior to this Act as a result of globalization, 80 per cent of the seeds were farmers' own varieties which have been saved, produced and exchanged freely. The balance of 20 percent was supplied by the public sector seed companies. Under pressure from World Bank, the Seed Policy of 1988 started to dismantle the robust public sector in favour of private sector companies and multinationals. This is made clear in the objectives of the Seed Act 2004 which is aimed at replacing farmers' saved seeds with seeds from private sector seed industries.

Thirdly, the Seed Act introduces Inspector Raj and gives the inspectors the power to enter and search premises, even to break open any container and any door. This is tantamount to the creation of a 'Seed Police'. The fine for seed exchange and barter of unregistered seed is up to ` 25,000.

In a very angry comment, Dr. Vandana Shiva states : The 2004 Seed Act has nothing positive to offer to farmers in India but offer a promise of a monopoly to private seed industries, which has already pushed thousands of our farmers to suicide through dependency and debt caused by unreliable, high dependency and non-renewable seeds." The 1996 Act used to serve the country well and should have been continued "It is the MNC seed industry that need regulation and not the small farmers of our country without whose seed freedom the country will have no food sovereignty and food security."

Fourthly, methods of agriculture were excluded from patentability in the Indian Patent Act, 1970 to ensure that the seed, the first link in the food chain, was held as a common property resource in the public domain. The farmers were guaranteed the inalienable right to save, exchange and improve upon the seed. But subsequent amendments of 1970 Act have opened the floodgates for patenting of genetically engineered seeds. It needs to be emphasized that patents are monopolies and they grant exclusive rights which prevent farmers from producing, saving and exchange of seeds from farmer-to-farmer. In other words, patents on seed convert seed saving into an "intellectual property right."

The entire controversy veers round corporate rights versus farmers' rights. The US Government in collusion with WTO has been demanding monopoly protection for Transnational Corporation (TNCs) which control seed industry. It implies that under the garb of globalisation, whereas greater emphasis should be given to liberalization and competition should have been promoted, the Plant genetic resources (PGR) legislation aims to create monopoly through the agency of IPRs. In other words, PGR legislation is a conflict between farmers and seed industry and between the public domain and private profits, between an agriculture that produces and reproduces diversity and that consumes diversity and produces uniformity.

Prof. Borlaug stated in a very forth-right manner : "We battled against patenting. Late Glen Anderson (of International Wheat and Maize Research Institute) and I went on record in India as well as other places against patenting and always stood for free exchange of germ plasm."

The new Seed Act proposed in 2004 could for ever destroy farmers rights and thus destroy biodiversity of our seeds and crops. It robs the farmers of their freedom and establishes a seeds dictatorship. Such a dangerous legislation is anti-farmer as it establishes TNC totalitarianism. It should, therefore, be scrapped.



Norman Borlaug, the scientist who pioneered the Green Revolution and was the recipient of Nobel Peace Prize at a press conference held on 8th February 1996 expressed his concern against private companies and TNCs gaining control of the plant genetic resources seeds and patenting plants.

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TRIPS, Haldi and Neem

India's ancient use of Haldi (Turmeric) was sought to be patented under the American Law in 1995. Luckily for India, Dr. R. A. Mashelkar, Director General of Council of Scientific and Industrial Research challenged it. The US patent office acknowledged its mistake and cancelled the patent on 'Haldi'.

An American company has been granted a patent right for Neem as a pesticide. Basmati rice, which was a universal variety in India, has been patented as Kasmati and Texmati. Danger lurks with regard to Tulsi (Basil) plant. These are a few cases of biopiracy of India's herbal wealth and to prevent huge losses, India will have to undertake huge documentation about the use of its herbal wealth.

TRIMS and its Impact on India

Trade Related Investment Measures (TRIMs) were initiated by the US in 1980 since it was losing ground in competition in goods to Japan and other newly industrialised nations of East Asia and intended to recover its lost ground through trade in services. Although GATT had never discussed the idea of trading in services as part of the earlier seven rounds of negotiations, the USA tried to sell this idea in the 8th Round of GATT negotiations. The principal objective was to benefit the Multinational Corporations (MNCs) so that they could undertake investment in financial services, telecommunications, marketing so as to boost world trade.

The main provisions provided in the TRIMs text ensure that Governments shall not discriminate against foreign capital. In other words, the TRIMs text compels member countries to give national treatment to foreign capital. The main features of the TRIMs text are :

- (i) All restrictions on foreign capital/investors/ companies should be scrapped.
- (ii) The foreign investor shall be given the same rights in the matter of investment as a national investor.
- (iii) No restrictions will be imposed on any area of investment.
- (iv) Nor will there be any limitation on the extent of foreign investment—even 100 per cent foreign equity will be permitted.
- (v) Imports of raw materials and components will be allowed freely.
- (vi) Foreign investor will not be obliged to use local products and materials.
- (vii) Export of part of the output will no longer be mandatory.
- (viii) Restrictions on repatriation of dividend, interest and royalty will be eliminated.
- (ix) There will be a complete exclusion of provisions like phased manufacturing programme which is intended to increase the indigenous content in manufacture.

Textiles and Clothings

GATT agreement has made certain proposals to liberalise the trade of textiles and clothings. These proposals are very important for developing countries since textile exports constitute the single most important item of their export. Ironically, developed countries who claim to be the greatest champions of free trade have imposed most comprehensive quota restrictions under the multi-fibre agreement (MFA). The Act proposes to phase out MFA quotas over a ten year period (1993 to 2003) and to fully liberalise the textile sector at the end of the ten year period.

The Act has divided the 10-year period into three phases of three, four and three years. In the first phase 16 per cent of the textile exports to the developed countries will be liberalised, to be followed by 17 per cent in the second phase and another 18 per cent in the third phase. Thus at the end of the 10-year period, only 51 per cent of textile market will be liberalised. Thus, a substantial portion (49 per cent) shall have to wait for the second wave of liberalisation after 2003 AD. What is intriguing is that textiles are defined in such a way that textile sector includes items that are not currently under quota restrictions in developed countries. Thus, instead of creating real liberalisation and withdrawing non-tariff restrictions, the myth of liberalisation has been created. The Ministry of Commerce has made this point clear : "It is a fact that the textile agreement is not evenly balanced in the sense in the initial years, there is minimal liberalisation and significant steps for liberalisation are left only to the

last three years. This is one of the points of dissatisfaction for India and we are strongly urging the importing countries to bring forward the liberalisation process.”

29.5 Social Clause in GATT

A very startling proposal was made in the context of the finalisation of the GATT agreement towards the end of March 1994. This proposal, commonly referred to as “social clause” was moved by US to be incorporated in the Marakkesh Declaration. The US representative proposed under the social clause to levy a countervailing duty on imports from developing countries aimed at offsetting the low labour costs prevailing there. In plain language, the proposal implied the following : If a shirt in India cost ` 50, while it cost ` 200 in the US, then this differential was largely a consequence of the difference in labour costs. To remove this differential advantage, Indian exports to the USA would have to pay a duty aimed at neutralising the cost advantage. The social clause, it was stated, is motivated by humanitarian concern, so that the developing countries adopt proper standards of living for the workers and pay their labour better wages.

Experts in developing countries were shocked by this proposal since it aimed at blunting the only competitive edge of the Third World countries. Experts described the humanitarian argument no more than a moth-eaten fig leaf. The only purpose of getting suddenly concerned about the plight of labour in the Third World was their deep desire to deprive developing countries of their only competitive advantage. They know that as far as technology is concerned, developing countries are at a historical disadvantage. Developing countries have now to pay high price for getting technology from the developed countries. If this clause is introduced, Indian products will become unsaleable in the USA and the other countries of the European Community. Ironically, it would imply that the poorer nations will be forced to pay for the fact that they are poor.

Critics are of the view that this move is a continuation of the Harkin Bill which calls upon the US Department of Labour to annually identify goods made with the use of child labour and the countries exporting them. If this Bill is passed, US Government will ban the import of these items, severely affecting India’s export of carpets, gems and jewellery, textiles and garments etc. The social clause is, therefore, aimed at countries like India so that the advantage to the developing world is destroyed and their capacity to export manufactured goods is seriously crippled. In the end, these countries should be allowed to export raw materials like cotton and iron ore and import garments and steel. It would really revive the days of colonialism. Mr. Pranab Mukherjee, former Minister of Commerce, stoutly opposing the linkage between social policy concerns, like labour standards, and trade clearly stated at Marakkesh on April 13, 1994 : “I would like to state categorically that while we are strongly committed to internationally recognised labour standards, we see no merit whatsoever in the attempt to force linkages where they do not exist. Trade policy cannot be made the arbiter of all concerns.”

The social clause proposal became the rallying point of G-15 states and the Malaysian Prime Minister Mahathir Mohammed launched a diatribe against the provision. The unanimous opinion of the G-15 countries was that the social clause proposal would hit their economies adversely and thus aggravate the problem of balance of payments, rather than help them to bridge the BOP gap. Due to the combined strength of G-15 countries, the US government had to face a retreat and the issue was deferred.

The Fifth Conference of the Labour Ministers of Non-aligned and other developing countries held in Delhi from January 19-23, 1995 dismissed the “social clause” as “totally unacceptable”. It asserted : The proposed linkage would negate the benefits of trade liberalisation and aggravate problems of unemployment and distress. Delhi Declaration came down heavily on the coercive aspect of proposed linkage and stated : Any form of coercion on the labour standards issue is violative of the constitution of International Labour Organisation (ILO). The declaration further emphasised that “the application of unilateral coercive economic measures by the developed countries aimed at the Third World countries with a view to obtaining economic or political advantage is unacceptable”.

There is another proposal to introduce an environmental protection clause with the intention of forcing the developing countries to pay for the alleged destruction of environment. Experts are of the view that a more discriminatory provision than this is hard to imagine since three-fourth of the damage to world ecological environment has been caused by the developed world over the last two centuries. It

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is really ironical, the developed countries have the cheek to ask the developing countries in the face of these facts to pay for the sins of the developed world.

There is no end to the innovative machinations which the developed countries initiate to force the developing countries into submission to their proposals. The temporary withdrawal of the social clause should not be seen as a victory of the developing countries, it is quite possible that USA may revive it. The question that need to be posed as a counterpoint is : Should developing countries, on the basis of human considerations, impose countervailing duties on US goods till such time that the Blacks in America are assured equality of treatment ? Are not labour standards with reference to Blacks important, if the linking of social concerns to trade policy, is pushed to its logical conclusions. Thus, there is a need for vigilance and combined resistance by Third World countries so that the enlarged scope of GATT is not used to their disadvantage.

Self-Assessment

1. Choose the correct options:

- (i) Which of the following is NOT an argument to support free trade?
 - (a) Free trade limits the influence of special-interest groups.
 - (b) Free trade allows firms to exploit economies of scale.
 - (c) Free trade is always welfare-improving because those who gain can compensate those who lose.
 - (d) Free trade leads to efficient allocation of resources.
- (ii) What is the essence of the "terms-of-trade" argument against free trade?
 - (a) A large country can improve its terms-of-trade by subsidizing exports, and the optimal export subsidy is positive.
 - (b) Terms-of-trade is an important policy tool that is not available if the government commits to free trade.
 - (c) A large country can improve its terms-of-trade by imposing tariffs, and the optimal tariff is positive.
 - (d) A small country cannot affect its terms-of-trade, so it might as well impose tariffs to raise government revenues.
- (iii) What particular market failure does the "market failure argument" against free trade refer to?
 - (a) Any market failure that occurs in the tradable sector.
 - (b) Environmental externalities.
 - (c) Knowledge and technology spill-overs.
 - (d) Unemployment.
- (iv) The "theory of the second best" states that:
 - (a) Free trade is only the "second best" policy, after the optimal tariff.
 - (b) Free trade is only desirable if everything else works properly.
 - (c) There is always an alternative solution if the first best is not feasible.
 - (d) Trade intervention is the best policy for dealing with domestic market imperfections.
- (v) What is the main reason explaining why agriculture enjoys protective tariffs in the U.S.?
 - (a) Low wages in the agriculture sector would fall even further in the absence of protection.
 - (b) The "infant industry" argument.
 - (c) Unfair competition from European agriculture.
 - (d) Producers (who gain) are well organized, while consumers (who lose) are not.
 - (e) Environmental and health concerns force the government to restrict non-compliant imports.

- (vi) Why are international negotiations important in order to reduce tariff rates worldwide?
- Large countries can impose policy restriction on smaller countries.
 - Special-interest groups cannot affect international negotiations.
 - They help avoid trade wars.
 - The world as a whole gains from free trade.

29.6 Summary

- A survey of the globalisation policies followed in India reveals that the promised benefits of globalisation in the form of sharp increase in GDP, exports, foreign direct investment, reduction of poverty, deceleration of unemployment could not be realised by India during the 1990s. Globalisation has adversely affected Indian industry, it has enabled the developed countries to push their exports to India at a much faster rate, but did not facilitate the process of access to international markets; small scale industry has suffered due to the policy of dumping practised by developed countries, more especially in consumer goods. The most distressing part of the story is the double standards practised by the developed countries which manifest in the form of unfair agreement on textiles; a policy marked by a bias in favour of the farmers of developed countries as against the poor farmers in India. Developed countries brought forth spurious environmental and social issues to prevent the exports from India of such commodities in which the country possessed comparative advantage Mr VS Vyas rightly points out : “The international agreements, particularly under World Trade Organisation (WTO) have not helped the developing countries as was professed at the time of the establishment of WTO”. All these factors have resulted in an erosion of faith in globalisation as the new “mantra” for stimulating development in India.
- There is no doubt that in a world of unequal partners, multilateralism is superior to bilateralism and if some concessions are to be extracted from strong partners belonging to US and European Community, then the combined strength of the developing countries can exercise a stronger pull in their favour. One redeeming feature of the GATT is that there is the principle of one country, one vote. However, the developed countries are able to pressurise the developing countries by various new devices, more especially through intellectual property rights and TRIMs. Although the Government of India is claiming that very substantial benefits are likely to accrue as a consequence of GATT agreement, but it is premature to reach any definite conclusion. The Final Act is such a big document that it has wheels-within-wheels and the thrust of the Act is to toe the line of developed nations. Mr. R.K. Khurana of the India International Centre has rightly summed up the position : “The consensus, however, is that the Uruguay Round has been a game in which the more powerful nations lay down the rules. Unfortunately, India is not one among the powerful trading nations and it is, therefore, doubtful if the country could have achieved anything significantly more than what our negotiations have managed.”
- The history of GATT reveals that whenever newly industrialised nations have challenged the competitive strength of the developed Countries, they have immediately retaliated by imposing both tariff and non-tariff barriers. They have now enlarged these in the form of TRIPs and TRIMs. The innovation of the social clause was also conceived with the same intention of blunting the competitive advantage of developing nations. This game will continue. The solution lies in the fact that the developing nations should take advantage of the multi-lateral trade organisations and show their combined strength by closing their ranks, rather than surrender their sovereignty one after another. To say that there is no alternative is a defeatist solution. Now that China has also been admitted to WTO, both China and India should work together to assert a fair and just treaty among the trading partners of WTO, rather than pushing down the throat of the weak, the will of the strong partner(s).

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29.7 Key-Words

1. International negotiations : Negotiating abroad requires the ability to meet special challenges and deal with the unknown. Even those experienced in cross-cultural communication can sometimes work against their own best interests during international business negotiations. Skilled negotiators know how to analyze each situation, set up negotiations in ways that are advantageous for their side, cope with cultural differences, deal with foreign bureaucracies, and manage the negotiation process to reach a deal.
2. Tariff rates : A tax imposed on imported goods and services. Tariffs are used to restrict trade, as they increase the price of imported goods and services, making them more expensive to consumers. They are one of several tools available to shape trade policy.
3. Free trade : A free-trade area is a trade bloc whose member countries have signed a free-trade agreement (FTA), which eliminates tariffs, import quotas, and preferences on most (if not all) goods and services traded between them. If people are also free to move between the countries, in addition to FTA, it would also be considered an open border. It can be considered the second stage of economic integration.

29.8 Review Questions

1. What is the impact of WTO on various aspects of Indian Economy? Explain.
2. What are the functions of WTO? Discuss.

Answers: Self-Assessment

1. (i) (c) (ii) (c) (iii) (a)
(iv) (b) (v) (d) (vi) (c)

29.9 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 30 : UNCTAD, IMF, World Bank and Asian Development Bank

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Objectives

After reading this Unit students will be able to:

- Explain the UNCTAD and Development.
- Know the International Monetary Fund.
- Discuss the World Bank and Asian Development Bank.

Introduction

The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 following the growing dissatisfaction with the operation of such international institutions as the IMF and the GATT. These institutions favoured the developed countries and failed to tackle the special trade and development problems of the LDCs. The GATT, in particular, being committed to free trade, reduction of tariffs and abolition of preferences and import restrictions, did not pay any attention to proposals to stabilise commodity prices and give preferential treatment to LDCs in trade with developed countries.

The first step towards the creation of UNCTAD was taken when the UN General Assembly declared the 1960s as the United Nations Development Decade in December 1961. By so doing, it recognised the need for adopting measures by developed countries to bridge the gap between the rich and poor nations through trade and aid. It was on the recommendations of the UN Economic and Social Council in July 1963 for convening a conference on trade and development that the UN General Assembly convened the first UNCTAD at Geneva in 1964.

Accordingly, the UNCTAD I was held at Geneva in 1964. Since then such conferences have been held normally every four years : UNCTAD II at New Delhi, 1968; UNCTAD III at Santiago, 1972; UNCTAD IV at Nairobi, 1976; UNCTAD V at Manila, 1979; UNCTAD VI at Belgrade, 1983; UNCTAD VII at Geneva, 1987; UNCTAD VIII at Cartagena (Columbia), 1992; and UNCTAD IX at Midrand (South Africa), 1996.

30.1 The UNCTAD and Development

ORGANISATION

The UNCTAD is a permanent organ of the UN General Assembly with its headquarters at Geneva. It has a Secretariat. UNCTAD VIII agreed upon a new organisational structure for the UNCTAD which has been in operation since April 1992. It includes the following :

Conference : The (UNCTAD) Conference consisted of 188 members as on April 1996.

Secretariat : The UNCTAD is run by a secretariat under the Secretary-General who is elected by the members. The organisational entities of the secretariat are the executive direction and management, the administrative service and inter-governmental support services. Other organisational institutions of the secretariat are detailed below.

Trade and Development Board : An executive body known as the Trade and Development Board which meets twice a year in Regular Session and in Special Session as required. It takes policy decisions when the Conference is not in session. It is composed of 55 members elected from among the Conference Members on the basis of equitable geographical distribution.

Executive Committee : There is an Executive Committee of the Board which is composed of the permanent representatives of member states deputed to the UNCTAD in Geneva. It meets periodically, usually every month.

Standing Committees : The Board is assisted in its functions by four new standing committees relating to commodities, poverty alleviation, economic co-operation among developing countries, and services. These Committees make studies and prepare reports from time to time, especially for the Conference to be held.

Special Committee : There is a Special Committee on Preferences.

Divisions : In response to the new orientation for working, resulting from UNCTAD IX, the UNCTAD secretariat has been reorganised to make it more performance-driven and to improve its quality of service. The secretariat now consists of four divisions (or groups) instead of nine previously. They are : (1) Division on Globalisation and Development Strategies (DGDS); (2) Division on International Trade in Goods and Services and Commodities (DITGSC); (3) Division on Investment, Enterprise Development and Technology (DIETD); and (4) Division on Services Infrastructure for Development and Trade Efficiency (DSIDTE). These divisions are responsible for helping the developing countries reap the benefits of globalisation to attain sustainable development.

In addition, the Secretary-General of the UNCTAD has established an office of the Special Coordinator for least developed, landlocked and island developing countries. Its aim is to prevent further marginalism of least developed countries in the world economy and to solve their specific problems.

The various committees and divisions have fixed terms. The divisions can bring in national experts so that their deliberations are enriched with national experience and empirical evidence. Non-governmental experts are also invited to participate both in the divisions and in the public sessions of the Board. They can also act in an advisory capacity to the Committees.

The Secretariat publishes an annual report based on the studies made by the Committees.

FUNCTIONS OF UNCTAD

The UNCTAD is expected to perform the following functions as laid down by the UN General Assembly :

1. To promote international trade between countries with different socio-economic systems, especially for accelerating the economic development of LDCs.
2. To formulate principles and policies of international trade and related problems of economic development.
3. To make proposals for putting the said principles and policies into effect, and to take such steps which may be relevant towards this end.
4. Generally, to review and facilitate the co-ordination of activities of other institutions within the UN system in the field of international trade and related problems of economic development.

5. To be available as a centre for harmonious trade related development policies of government, and regional economic groupings.

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Objectives and Achievements of UNCATED

UNCTAD is supposed to fulfil the following objectives which have been evolved gradually of the various conferences : (1) trade in primary commodities, (2) trade in manufactured goods, (3) development financing, (4) technology transfer, and (5) economic co-operation among developing countries. We discuss below the extent to which UNCTAD has been successful in achieving these objectives.

Trade in Primary Commodities

The UNCTAD has been active in the international commodity arrangements since its inception. LDCs want to expand the market for their traditional exports of primary commodities. Developed countries place restrictions on the exports of the latter in such forms as licensing, quotas, tariffs, health and packaging regulations, etc. and provide subsidies to domestic producers. Such trade restrictions tend to be higher for processed products than for unprocessed. Besides, exports from LDCs have been subject to wide fluctuations. Consequently, there has been a continual deterioration in the terms of trade of primary products of the LDCs in relation to the export of manufactured products from the developed countries.

Since UNCTAD II, the LDCs have been insisting on International Commodity Agreements (ICA) to stabilise the prices and markets for their exports of primary products. These agreements seek : (1) to stabilise the price of the commodity concerned so as to reduce price fluctuations and the resulting instability in the economies of the producing LDCs; and (2) to increase its price to compensate for the fast worsening in the terms of trade of the LDCs.

At UNCTAD IV (Nairobi), in 1976 it was proposed to have an Integrated Programme for Commodities (IPC), and to create a common fund for buffer stock financing. The proposal was to negotiate international commodity agreements to stabilise the prices of 18 commodities, ten of which were to be included in the initial buffer stock scheme. This programme led to the international commodity agreements on only cocoa (1981) and rubber (1980). UNCTAD VI (Belgrade) in 1983 also emphasised the importance of negotiating ICAs for ten commodities. Of the five agreements on commodities—coffee, cocoa, sugar, tin and rubber—only that for rubber is still in operation.

UNCTAD VII had a Subsidiary Committee on Commodities and UNCTAD VIII set up a Standing Committee on Commodities for making recommendations to the TDB.

It was at UNCTAD VII (Geneva) that a Common Fund for commodities under the IPC became operational after a number of countries ratified it or expressed their intentions to do so. New pledges announced at UNCTAD VII raised its total pledged capital to 66.9 per cent \$ 4.7 billion fund, allowing it to become operational.



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The UNCTAD IV proposed for a \$ 6 billion Common Fund in 1976 to create and finance international buffer stock of ten storable commodities.

Economic Cooperation Among LDCs

UNCTAD II held at New Delhi in 1968 emphasised for the first time the need for promoting international co-operation and self-reliance among the LDCs. UNCTAD VI held at Belgrade in June 1983 again emphasised the need for co-operative efforts among LDCs through widening the scope of preferential trading arrangements, harmonising industrial development programmes through infrastructural facilities, particularly in respect of shipping services and simple payment mechanism under common clearing system.

The first step towards economic co-operation among LDCs was taken at the ministerial meeting of G-77 held at New York in October 1982 when it was decided to launch the Global System of Tariff Preferences (GSTP). In 1984, the UNCTAD organised two meetings where intensive technical level discussions were held in drafting the ground rules procedures for GSTP negotiations. Another

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ministerial conference held at New Delhi in July 1985 decided to conclude the first round of GSTP negotiations in May 1987, on the eve of UNCTAD VII. GSTP is a major initiative of developing countries to expand mutual trade through grant of tariff and non-tariff concessions and other measures such as long-term contracts under the UNCTAD.

Besides increasing trade, UNCTAD VI recommended the initiation or strengthening of a number of cooperative measures in the fields of research and development, design and engineering among LDCs. Harmonisation of LDCs policies, rules, regulations, laws and practices governing technology in all its aspects, training and exchange of personnel, including cooperative exchange of skills, establishment of preferential arrangements for the transfer and development of technology, technological cooperation in specific areas and sectors of critical importance. The possibilities of cooperation of technological transfer among LDCs exist for particularly the following four sectors : capital goods, human skills, energy, and food production and processing. However, possibilities in other sectors of their economies cannot be ruled out.

The UNCTAD V held at Manila in May-June 1979 passed a resolution relating to liner shipping. Among other things, the resolution included provisions aimed at enhancing the position of LDCs as both providers and users of liner shipping. It urged the LDCs to cooperate among themselves in pooling information regionally on cargo movements and service requirements, and to ensure the establishments or strengthening of national and regional shippers' organisations. The Belgrade Conference (UNCTAD VI) entrusted the UNCTAD secretariat with the task of carrying out studies on ship and port finance, structure of the global shipping industry, policies and practices of governments in respect of investment in and support of shipping etc.

UNCTAD VI also hinted at a simpler payments mechanism under a common clearing system. This is another area which can provide considerable encouragement to co-operation among LDCs. Further, the developed countries insist that the existing international institutions like the IMF and World Bank should be strengthened financially so that they may provide larger aid to LDCs to tide over their balance of payments and debt problems. But the LDCs call for the setting up of a new financial institution which should exclusively cater to their special financial requirements in fields such as joint ventures, development projects, export credit, commodity price stabilisation, and regional payments support, and long-term investment to expand trade in food and primary products, and for storage, processing and transport. So far no progress has been made in this direction.

UNCTAD VII also stressed the importance of economic co-operation among developing countries on the lines of the previous conference. It was UNCTAD VIII which set up a new Standing Committee on Economic Co-operation among developing countries to study and report on all facets of cooperation to the TDB.

There are many factors which stand in the way of economic co-operation among the LDCs. The economies of LDCs are highly competitive in nature. They have limited import capacity, inadequate credit facilities, chronic foreign exchange shortage, and prejudice against the goods traded among themselves. Consequently they prefer to trade with developed countries even though goods manufactured by LDCs are cheaper and of high quality. However, some of the LDCs suffer from other limitations which prevent them from entering into trade with other LDCs. These are technological backwardness, shortage of key inputs, high cost of production, lack of competitive strength and weak marketing structure. The various problems listed above can be overcome by mutual help and trust among LDCs of region and working in close cooperation among themselves. UNCTAD is a forum where they can meet, discuss and formulate plans for regional economic co-operation.

New Issues

During the late 1980s, a large number of developing countries changed their economic policies to a market orientation, and began the process of structural adjustments involving exchange rate alignments and outward-looking liberalisation of their economies. In the early 1990s, socialist countries of Eastern Europe and the Soviet Union had disintegrated and adopted the market-oriented reforms. It was against this background that UNCTAD VIII met at Cartagena in February 1992. The proceedings at UNCTAD VIII emphasised global cooperation rather than confrontation, the need for negotiations and promotion of knowledge-based policies.

UNCTAD VIII had five key areas on the agenda : resources for development, international trade, technology, services, and commodities. In order to evolve consensus on these issues, the conference decided that the focus should be on their analysis rather on negotiations. It was, therefore, agreed that the UNCTAD should have a new structure on the lines of the OECD secretariat so that it could devote itself to the analysis of issues which was set up in April 1992, as detailed above. Thus UNCTAD VIII focussed on new issues such as services and sustainable development and on its new organisational structure.

The UNCTAD IX held at Midrand (S.A.) in May 1996 urged its members to provide more resources for sustainable development and debt relief to developing countries and to carry on the issues relating to technology, services and commodities in the light of the WTO Agreement 1994 of the GATT.

AN APPRAISAL OF UNCTAD

Since the UNCTAD is a conference, it added a group approach to negotiations. Till UNCTAD VII, there were four groups : Group A of the developed countries, the Group of 77 of developing countries (G-77), Group C of China, and Group D of the socialist countries of Eastern Europe. These groups were pitted against each other in a giant conference invariably every four years. Now there are only two groups—the developing and developed countries.

During the 1970s, with the breakdown of the Bretton Woods system, oil crisis, inflationary pressure and accumulation of debt by many LDCs, the UNCTAD became a large debating forum between the North and the South.

During the 1980s some of the newly industrialised developing countries had impressive growth rates, while others had disappointingly low growth rates. The developing countries experienced declines in their commodity prices and terms of trade. Their debts mounted and international aid flows were inadequate. On the other hand, many developed countries faced recessionary tendencies. Consequently, there was nothing but hot air at the UNCTAD conferences. There was disillusionment among the developing countries because of the hardening attitude of the developed countries towards almost every issue raised by the former at the conferences. As pointed out by *The Economist*, London, the UNCTAD was “a political circus”. So each UNCTAD was a non-event that led to its failure to come to any agreement.

Despite long debates and disagreements at each conference, the UNCTAD has played a key role in the emergence of GSP, a maritime shipping code, commodity agreements to stabilise the volatile prices of primary product exporters, special international programmes to help the developing countries, and international aid targets.



Did u know?

The UNCTAD was set up in 1964 as an international forum to discuss and analyse trade related development issues which might lead to negotiations between the developed countries and LDCs.

IMF, The World Bank and Affiliates, and ADB

The world emerged into a new monetary system transcending the frontiers of individual countries, after the conference at Bretton Woods, where John Maynard Keynes dominated the proceedings with his startling *macro* concepts. It was in pursuance of the covenants established at Bretton Woods that the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD) or the World Bank, and such other international institutions were set up and started functioning.

The par value system, the quota system, the drawings and repurchases of currencies were the principal characteristics of the performance of the IMF. In the early 1970s, as a sequel to the devaluation of the dollar, both the par value system and fixed exchange rates came to an abrupt end, and the different currencies of the world started to *float*. Ten European countries linked themselves together in a *joint float* against the dollar and other currencies.

Notes

Such a policy of drift could not be allowed to continue and an important amendment to the IMF Charter came about in 1978, bringing about sweeping changes. The role of gold was drastically diluted, special drawing rights (SDRs) of member countries became decisively important to currency arrangements, and finally the surveillance of the Fund was established in a big way.

There could no longer be a devaluation without prior approval of the Fund. Finally, the IMF introduced the *conditionality arrangement*, generating much controversy and apprehension in the Third World.

Meanwhile the IBRD first engaged itself in financing the reconstruction of the war-ravaged economies of the world, particularly in Europe. Thereafter, as it became the World Bank, it has performed yeoman service in financing growth particularly in the developing economies of the world including the Third World.

30.2 International Monetary Fund

The International Monetary Fund—also known as the “IMF” or the “Fund”—was conceived at a United Nations conference convened in Bretton Woods, New Hampshire, U.S. in July 1944. The 45 governments represented at that conference sought to build a framework for economic cooperation that would avoid a repetition of the disastrous economic policies that had contributed to the Great Depression of the 1930s.

The IMF is an international organization of 184 member countries. It was established to promote international monetary cooperation, exchange stability, and orderly exchange arrangements; to foster economic growth and high levels of employment; and to provide temporary financial assistance to countries to help ease balance of payments adjustment (Figure 30.1).

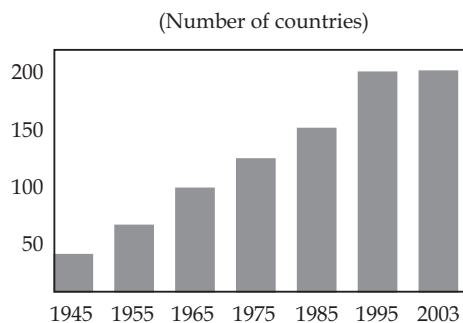


Figure 30.1 : Growth in IMF Membership, 1945-2003.

Since the IMF was established its purposes have remained unchanged but its operations—which involve surveillance, financial assistance, and technical assistance—have developed to meet the changing needs of its member countries in an evolving world economy.

Fast Facts

1. Current membership : 184 countries
2. Staff : approximately 2,700 from 141 countries
3. Total Quotas : \$ 327 billion (as of 28/2/05)
4. Loans outstanding : \$ 90 billion to 82 countries, of which \$ 10 billion to 59 on concessional terms (as of 28/2/05)
5. Technical Assistance provided : 367 person years during FY2004
6. Surveillance consultations concluded : 115 countries during FY2004, of which 92 voluntarily published their staff reports

Responsibilities

1. Promoting international monetary cooperation
2. Facilitating the expansion and balanced growth of international trade

3. Promoting exchange stability
4. Assisting in the establishment of a multilateral system of payments, and
5. Making its resources available (under adequate safeguards) to members experiencing balance of payments difficulties.

Activities

More generally, the IMF is responsible for ensuring the stability of the international monetary and financial system—the system of international payments and exchange rates among national currencies that enables trade to take place between countries. The Fund seeks to promote economic stability and prevent crises; to help resolve crises when they do occur; and to promote growth and alleviate poverty. It employs three main functions—surveillance, technical assistance, and lending—to meet these objectives.

1. The IMF works to promote global growth and economic stability—and thereby prevent economic crisis—by encouraging countries to adopt sound economic policies.
2. Surveillance is the regular dialogue and policy advice that the IMF offers to each of its members. Generally once a year, the Fund conducts in-depth appraisals of each member country's economic situation. It discusses with the country's authorities the policies that are most conducive to stable exchange rates and a growing and prosperous economy. The IMF also combines information from individual consultations to form assessments of global and regional developments and prospects. Its views are published twice each year in the *World Economic Outlook* and the *Global Financial Stability Report*.
3. Technical assistance and training are offered—mostly free of charge—to help member countries strengthen their capacity to design and implement effective policies. Technical assistance is offered in several areas, including fiscal policy, monetary and exchange rate policies, banking and financial system supervision and regulation, and statistics.
4. In the event that member countries do experience difficulties financing their balance of payments, the IMF is also a fund that can be tapped to help in recovery.
5. Financial assistance is available to give member countries the breathing room they need to correct balance of payments problems. A policy program supported by IMF financing is designed by the national authorities in close cooperation with the IMF, and continued financial support is conditional on effective implementation of this program.
6. The IMF is also actively working to reduce poverty in countries around the globe, independently and in collaboration with the World Bank and other organizations.
7. The IMF provides financial support through its concessional lending facility—the Poverty Reduction and Growth Facility (PRGF)—and through debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative.
8. In most low-income countries, this support is underpinned by Poverty Reduction Strategy Papers (PRSP). These papers are prepared by country authorities—in consultation with civil society and external development partners—to describe a comprehensive economic, structural and social policy framework that is being implemented to promote growth and reduce poverty in the country.

IMF Governance and Organization

The IMF is accountable to the governments of its member countries. At the apex of its organizational structure is its Board of Governors, which consists of one Governor from each of the IMF's 184 member countries. All Governors meet once each year at the IMF-World Bank Annual Meetings; 24 of the Governors sit on the International Monetary and Finance Committee (IMFC) and meet twice each year. The day-to-day work of the IMF is conducted at its Washington DC headquarters by its 24-member Executive Board; this work is guided by the IMFC and supported by the IMF's professional staff. The Managing Director is Head of IMF staff and Chairman of the Executive Board, and is assisted by three Deputy Managing Directors.

Notes

The IMF's resources are provided by its member countries, primarily through payment of quotas, which broadly reflect each country's economic size. The total amount of quotas is the most important factor determining the IMF's lending capacity. The annual expenses of running the Fund are met mainly by the difference between interest receipts (on outstanding loans) and interest payments (on quota "deposits").

India's quota and ranking : India's current quota in the IMF is SDR (Special Drawing Rights) 4,158.2 million in the total quota of SDR 212 billion, giving it a share holding of 1.961%. India's relative position based on quota is 13. However based on voting share, India (together with its constituency countries, viz., Bangladesh, Bhutan and Sri Lanka) is ranked 21.

30.3 The World Bank

The World Bank is one of the world's largest sources of funding and knowledge to support governments of member countries in their efforts to invest in schools and health centres, provide water and electricity, fight disease and protect the environment.

The World Bank is not a 'bank' in the common sense. The World Bank is an international organization owned by the 184 countries—both developed and developing—that are its members.

Since it was set up in 1944 as the International Bank for Reconstruction and Development. The number of member countries increased sharply in the 1950s and 1960s, when many countries became independent nations. As membership grew and their needs changed, the World Bank expanded and is currently made up of five different agencies.

All support to a borrowing country is guided by a single strategy (in the case of Afghanistan it is the 'Transitional Support Strategy') that the country itself designs with help from the World Bank and many other donors, aid groups, and civil society organizations.

Difference between the World Bank and a Commercial Bank

While it lends and even manages funds much like a regular bank, the World Bank is different in many important ways. The financial support and advice the World Bank provides its member countries is designed to help them fight poverty. And unlike commercial banks, the World Bank often lends at little or no interest to countries that are unable to raise money for development anywhere else.

Countries that borrow from the World Bank also have a much longer period to repay their loans than commercial banks allow. In some cases, they don't have to start repaying for ten years.

Basically, the World Bank borrows the money it lends. It has good credit because it has large, well-managed financial reserves. This means it can borrow money at low interest rates from capital markets all over the world and channel it to developing countries, often at much lower rates of interest than what markets would charge these countries.

Loans

The World Bank offers two basic types of loans : investment loans for goods, work and services to support economic and social development projects in a broad range of sectors; and adjustment loans to support policy and institutional reforms.

During loan negotiations, the World Bank agrees with the borrowing country on the development objective of the project or program, outputs, performance indicators (to measure the impact and success of the project) and a plan to put it all into practice. Once a loan is approved and becomes effective, the borrower puts the project or program into practice according to the terms agreed with the World Bank.

The World Bank supervises how each loan is used and evaluate the results. All loans are governed by operational policies, which make sure that operations are economically, financially, socially and environmentally sound.

Shareholders

Notes

The World Bank is run like a cooperative, with member countries as shareholders. The number of shares a country has is based roughly on the size of its economy. The United States is the largest single shareholder, with 16.41% of the votes, followed by Japan (7.87%), Germany (4.49%), the United Kingdom (4.31%) and France (4.31%). The rest of the shares are divided among the other member countries.

Every member government is represented by an Executive Director. The five largest shareholders (France, Germany, Japan, the United Kingdom and the United States) appoint an executive director each, while other member countries are represented by 19 Executive Directors.

The 24 Executive Directors make up our Board of Directors. They normally meet twice a week to oversee business, including reviewing loans and guarantees; new policies; the administrative budget; country support strategies; and borrowing and financial decisions.

Chander Mohan Vasudev is the Executive Director for India. He also represents Bangladesh, Bhutan, and Sri Lanka.

How the World Bank Works in India ?

The World Bank does not operate alone. In India, the Bank works with multiple development partners : The Government, other bilateral and multilateral donor organizations, nongovernmental organizations (NGOs), the private sector, and the general public— including academics, scientists, economists, journalists, teachers and local people involved in development projects. The Bank's method of operation is not to implement "World Bank projects" but to provide financing and advice for projects which are owned and supported by the Indian people and which are a logical part of a comprehensive and efficient overall development agenda.

How are Priorities Selected ?

Working with the government and civil society, the World Bank has developed an action plan known as the India Country Assistance Strategy (CAS) which describes *what kind of support* and *how much* could be provided to the country beginning in 2001 and covering a period of around three years. The CAS directly supports the government's Five-Year Plan and focuses on strengthening the enabling environment for development and sustainable growth and supporting critical interventions of special benefit to the poor and disadvantaged. In 2002, the World Bank completed a progress report on the CAS. It is also in the process of developing a new CAS.

Studies and Reports

The World Bank also produces studies and reports based upon its own analysis of a given issue. Topics of research come from the Bank's Country Assistance Strategy. This research is intended to provide an unbiased perspective on a range of specific development challenges.

Additional studies include reviews of economic policies (Country Economic Memoranda), fiscal spending (Public Expenditure Review), environmental reviews (Environmental Action Plan), and other specific topics.

Further discussion of development issues is promoted through workshops and other events. These events bring together groups such as government, media, and civil society organizations to discuss how best to move forward on a given issue.

Projects

As outlined in the support strategy, India develops its own projects with World Bank financing and technical support. The project cycle outlines the process of identifying, financing, implementing, and evaluating projects. Various financing options are available based upon the type of assistance needed. Loans or credits (interest-free loans) for these projects are then submitted for approval to the Executive Directors, the World Bank's decision-making body which represents all member countries.

Notes

It is important to note that the implementation of projects is managed by the Government itself. The government designates an office, referred to as the Implementing Agency, which is responsible for aspects such as procurement and selection of consultants and day to day work, monitoring and evaluation.

Operational Policies set guidelines to ensure that projects meet the World Bank's own criteria such as social and environmental standards. Project evaluations are conducted to capture and share lessons for future reference.

India : Country Assistance Strategy

This Country Assistance Strategy (CAS) for the period FY05-08 seeks to build a strong partnership with the Government of India, and, its overarching challenge will be how to maximize, and leverage Bank resources, to significantly scale up impacts, improve the quality of life of the poorest citizens, and help India achieve the Millennium Development Goals (MDGs). Three strategic principles will underpin the Bank's work : (1) focusing on outcomes; (2) applying selectivity; and, (3) expanding the Bank's role as a politically, realistic knowledge provider, and generator. This expansion will primarily be in (a) infrastructure—transport, power, water supply and sanitation, irrigation, and urban development; (b) human development—education, health, social protection; and, (c) rural livelihoods, emphasizing on community-driven approaches. During the period, important shifts are envisioned in the use of new approaches, i.e., cofinancing, and sector-wide approaches, where the Bank will seek engagement, and partnerships for this assistance. While the strategy will retain a reform, and performance-based approach to the states, it will change in the ways intended to engage with the largest, and poorest states, through policy dialogues on cross-cutting reforms—fiscal management, governance, service delivery, power sector, and investment climate. The CAS calls for enhanced focus on major analytical work, and a substantially higher level of International Development Association (IDA) resources, while the Bank's lending would fall within a range limited by an upper bound, which will require strong reform performance, and a strengthened pace of project preparation.

International Development Association

The International Development Association (IDA) is the part of the World Bank that helps the earth's poorest countries reduce poverty by providing interest-free loans and grants for programs aimed at boosting economic growth and improving living conditions. IDA funds help these countries deal with the complex challenges they face in striving to meet the Millennium Development Goals (MDGs). They must, for example, respond to the competitive pressures as well as the opportunities of globalization; arrest the spread of HIV/ AIDS; and prevent conflict or deal with its aftermath.

IDA's long-term, no-interest loans pay for programs that build the policies, institutions, infrastructure and human capital needed for equitable and environmentally sustainable development. IDA's goal is to reduce inequalities both across and within countries by allowing more people to participate in the mainstream economy, reducing poverty and promoting more equal access to the opportunities created by economic growth.

IDA's Borrowers

IDA lends to those countries that had an income in 2002 of less than \$ 865 per person and lack the financial ability to borrow from IBRD. Some "blend borrower" countries like India and Indonesia are eligible for IDA loans because of their low per person incomes but are also eligible for IBRD loans because they are financially creditworthy. Eighty-one countries are currently eligible to borrow from IDA. Together these countries are home to 2.5 billion people, half of the total population of the developing world. Most of these people, an estimated 1.5 billion, survive on incomes of \$ 2 or less a day.

IDA Lending

IDA credits have maturities of 20, 35 or 40 years with a 10-year grace period before repayments of principal begins. IDA funds are allocated to the borrowing countries in relation to their income levels and record of success in managing their economies and their ongoing IDA projects. There is no interest charge, but credits do carry a small service charge, currently 0.75% on funds paid out.

Notes

In fiscal year 2003 (which ended June 30, 2003), IDA commitments totalled \$ 7.4 billion and it had paid out \$ 7.0 billion. New commitments in FY03 comprised 141 new operations in 56 countries. Fifty-one per cent of new commitments went to Sub-Saharan Africa, 28% to South Asia, 8% to East Asia and the Pacific, 8% to Eastern Europe and Central Asia, and the remainder to poor countries in North Africa and in Latin America.

Since 1960, IDA has lent \$ 142 billion to 108 countries. Annual lending figures have increased steadily and averaged about \$ 7.4 billion over the last three years. Most loans address basic needs, such as primary education, basic health services, and clean water and sanitation. IDA also funds projects that safeguard the environment, improve conditions for private business, build infrastructure, and support reforms to liberalize countries' economies and strengthen their institutions. All these projects pave the way toward economic growth, job creation, higher incomes and better living conditions.

IDA Funding

While the IBRD raises most of its funds on the world's financial markets, IDA is funded largely by contributions from the governments of the richer member countries. Their cumulative contributions since IDA's beginning up to the end of June 2003 totaled US \$ 118.9 billion equivalent. Additional funds come from IBRD's income and from borrowers' repayments of earlier IDA credits.

Donors get together every three years to replenish IDA funds. Donor contributions accounted for more than half of the US \$ 23 billion in the IDA13th replenishment which financed projects over the three-year period ending June 30, 2004. The largest pledges to IDA13 were made by the United States, Japan, Germany, United Kingdom, France, Canada and Italy, but less wealthy nations also contribute to IDA. Turkey and Korea, for example, once IDA borrowers, are now donors. Countries currently eligible to borrow from IBRD (but not from IDA)—Argentina, Brazil, Czech Republic, Hungary, Mexico, Poland, Russia, the Slovak Republic, and South Africa—are also IDA 13 donors. Other contributors include Australia, Austria, Belgium, Denmark, Finland, Greece, Iceland, Ireland, Israel, Kuwait Luxembourg, Netherlands, New Zealand, Norway, Portugal, Saudi Arabia, Singapore Spain, Sweden and Switzerland.

To increase openness and help ensure that IDA's policies are responsive to country needs and circumstances, representatives from each IDA region were invited to take part in the IDA 13 replenishment negotiations. The number of borrower representatives was further expanded—to a total of nine—at the first meeting of the IDA14 replenishment negotiations, held in Paris in February 2004. As was the practice in IDA13, background policy papers will be publicly released, as will a draft of the replenishment report prior to its finalization.

International Finance Corporation

The International Finance Corporation (IFC) promotes sustainable private sector investment in developing countries as a way to reduce poverty and improve people's lives. IFC is a member of the World Bank Group and is headquartered in Washington, DC. It shares the primary objective of all World Bank Group institutions : to improve the quality of the lives of people in its developing member countries—IFC Mission Statement.

Established in 1956, IFC is the largest multilateral source of loan and equity financing for private sector projects in the developing world. It promotes sustainable private sector development primarily by :

- Financing private sector projects located in the developing world.
- Helping private companies in the developing world mobilize financing in international financial markets.
- Providing advice and technical assistance to businesses and governments.

Ownership and Management

IFC has 177 member countries, which collectively determine its policies and approve investments. To join IFC, a country must first be a member of the IBRD. IFC's corporate powers are vested in its Board

Notes

of Governors, to which member countries appoint representatives. IFC's share capital, which is paid in, is provided by its member countries, and voting is in proportion to the number of shares held. IFC's authorized capital is \$ 2.45 billion. Statement of Capital Stock and Voting Power.

The Board of Governors delegates many of its powers to the *Board of Directors*, which is composed of the Executive Directors of the IBRD, and which represents IFC's member countries. The Board of Directors reviews all projects.

The President of the World Bank Group, James D. Wolfensohn, also serves as IFC's president. IFC's Vice President, Operations and Acting Executive Vice President, Assad Jabre, is responsible for the overall management of day-to-day operations.

Although IFC coordinates its activities in many areas with the other institutions in the World Bank Group, IFC generally operates independently as it is legally and financially autonomous with its own Articles of Agreement, share capital, management and staff.

Funding of IFC's Activities

IFC's equity and quasi-equity investments are funded out of its net worth : the total of paid in capital and retained earnings. Strong shareholder support, triple-A ratings, and the substantial paid-in capital base have allowed IFC to raise funds for its lending activities on favourable terms in the international capital markets.

India and IFC

Since 1956, IFC has invested in 153 companies in India, providing nearly \$ 2.8 billion in financing for its own account and \$ 525 million for the accounts of participants in IFC's loan syndication program. Our held portfolio of \$ 1.2 billion (as of March 2005) makes India our third largest country of operations. In recent years, we have grown our business substantially, with new commitments reaching \$ 284 million in FY 2004.

To reduce poverty and promote sustainable economic growth, we believe that India needs a vibrant private sector which will :

1. Increase the availability of high-quality infrastructure.
2. Accelerate rural growth.
3. Develop competitive manufacturing and service industries.
4. Strengthen the financial sector.

We are therefore focusing our activities on supporting :

1. Private sector involvement in infrastructure financing.
2. Restructuring and modernization of the manufacturing and services sectors to become internationally competitive.
3. The development of new financial institutions and products.

We are committed to working on the frontiers of private investment, helping bring commercial disciplines and entrepreneurial dynamism to new areas of the economy. We therefore also support private investment in health and education, and innovative applications of information technology.

30.4 Asian Development Bank

The Asian Development Bank (ADB), a multilateral development bank, was established in 1966 under the Agreement Establishing the Asian Development Bank (Charter) which is binding upon the member countries which are its shareholders. The purpose of ADB is to foster economic growth and cooperation in Asia and the Pacific region and to contribute to the economic development of the developing member countries in the region collectively and individually. ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve living conditions and quality of life. ADB's strategy for reducing poverty rests on three pillars : sustainable economic growth, inclusive social development, and governance for effective policies and institutions.

Notes

As of December 31, 2004, ADB had 63 members consisting of 45 regional members, including Japan, Australia, and New Zealand, and 18 nonregional members, including the United States, Canada and 16 European countries. The regional members provided 63.2% of ADB's capital and the nonregional members provided 36.8% of its capital during the previous fiscal year. The membership of ADB reflects the intention of the founders that, while its operations should be limited to the region, it should incorporate the active participation and financial resources of developed nations outside the region. The percentage of voting power in ADB's affairs held by the respective members is related, but is not directly proportional, to their capital subscriptions. As of December 31, 2004, the aggregate voting power of the developed member countries, which include all nonregional members plus Japan, Australia, and New Zealand, represented approximately 54.6% of the total. The members and their respective voting power and subscriptions to ADB's capital stock as of December 31, 2004 are set forth in Appendix VII of the Financial Statements.

ADB's primary activity is making loans to finance projects or programs located within the territories of its developing member countries. Such activity is divided into ordinary operations and special operations, for which separate financial statements are maintained. Ordinary operations are financed from ordinary capital resources and special operations are financed from Special Funds resources, most of which are contributed by members. Under the Charter, ADB's ordinary capital resources and the Special Funds resources must at all times be held and used entirely separately from each other.

In addition to its lending operations, ADB issues guarantees, makes equity investments and participates in underwriting equity funds. ADB also extends technical assistance in the form of grants or loans for project preparation and evaluation, development planning and other purposes. ADB also provides policy dialogues and advisory services and mobilizes financial resources through its cofinancing operations tapping official, commercial, and export credit sources to maximize the development impact of its assistance. To complement ADB's activities in development research and training, ADB has established the ADB Institute, a subsidiary body of ADB, located in Tokyo, Japan.

Operational Policies

ADB is authorized under the Charter to make, participate in or guarantee loans to its developing member countries or their governments, to any of their agencies or political subdivisions, and to public or private enterprises operating within such countries, as well as to international or regional entities concerned with economic development in the region. Such loans are made only for projects or programs of high developmental priority. ADB provides financing to its borrowers to cover foreign exchange expenditures incurred in a project and also finances local currency expenditures in certain cases. ADB requires its borrowers to absorb exchange risks attributable to fluctuations in value of the currencies which it has disbursed.

In evaluating the projects that it may finance, ADB considers such factors as economic, social, environmental, technical, institutional and financial feasibility, effect on the general development activity of the country concerned, contribution to economic development, capacity of the borrowing country to service additional external debt, effect on domestic savings, balance of payments effects, impact of new technologies on productivity, and expansion of employment opportunities. In response to the changing needs and imperatives of the developing member countries and the international environment, ADB has declared poverty reduction to be its overarching goal. ADB supports this goal by providing loans and grants to promote sustainable economic growth, social development, and good governance. To broaden and deepen the impact of its interventions, ADB promotes the role of the private sector in development, supports regional cooperation and integration, and addresses environmental sustainability in all its loans.

Goal

ADB's overarching goal is to reduce poverty in Asia and the Pacific. It helps improve the quality of people's lives by providing loans and technical assistance for a broad range of development activities.

ADB is a multilateral development finance institution that engages in mostly public sector lending for development purposes in its developing member countries. ADB's clients are its member governments, who are also its shareholders.

Notes

ADB and India

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve their living conditions and quality of life. ADB pursues a strategic agenda—sustainable economic growth, inclusive social development, and governance for effective policies and institutions—with three crosscutting themes : private sector development, regional cooperation, and environmental sustainability.

ADB's main instruments in providing help to its developing member countries are policy dialogues, loans, technical assistance, grants, guarantees, and equity investments. In 2003, ADB's total lending volume was US \$ 6.1 billion. Technical assistance, which is used for preparing and implementing projects, supporting advisory activities, and undertaking regional activities, amounted to US \$ 176.5 million. Grants totaling US \$ 483.5 million were also provided.

ADB was established in 1966. India was one of its 31 founding members. ADB's headquarters is in Manila. It has 23 offices around the world. ADB's staff numbers more than 2,000 employees from over 50 countries.

Loans and Technical Assistance

Nine loans for seven projects totaling US \$ 1.5 billion were approved in 2003. They were for development of rural roads, state roads, and national highways; urban water supply and environment improvement; and power development. Twenty-two technical assistance projects totaling US \$ 14.7 million were also approved. Cumulative ADB lending to India as of 31 December 2003 was US \$ 13.32 billion.

Self-Assessment

1. Choose the correct options

- (i) Which of the following are not third-world regions?
 - (a) Latin America.
 - (b) Asia.
 - (c) Africa.
 - (d) Australia.
- (ii) Which of the following countries are not newly industrialized countries (NICs)?
 - (a) Taiwan.
 - (b) North Korea.
 - (c) Singapore.
 - (d) Hong Kong.
- (iii) Which country is not a transitional economy
 - (a) China.
 - (b) Russia.
 - (c) Hungary.
 - (d) Mexico.
- (iv) The poorest region of the world is
 - (a) the Middle East.
 - (b) sub-Saharan Africa.
 - (c) Asia.
 - (d) Latin America.
- (v) Of the world's population, what portion lives in developing countries?
 - (a) approximately 35%.
 - (b) approximately 80%.
 - (c) nearly 10 billion people.
 - (d) less than 1 billion people.
- (vi) In which of the following countries would you expect material lifestyles to be most like those in the United States?
 - (a) Nigeria.
 - (b) Japan.
 - (c) India.
 - (d) Mali.

30.5 Summary

- The UNCTAD secretariat has been doing yeoman's service to LDCs through its annual and other reports which highlight their trade, finance and debt problems vis-a-vis developed

Notes

countries. In fact, the detailed reports prepared by it before each conference have created a new climate of thought with regard to the problems and needs of LDCs. These are again discussed at other international forums such as the IMF, World Bank, OECD, EEC, NAM, etc. Often, positive measures follow such as larger aid by the World Bank and OECD, giving more trade concessions by EEC to LDCs, etc. As such the UNCTAD reflects the sentiments, hopes and aspirations of LDCs in a world still dominated by the developed countries, both politically and economically.

- The days of the gold standard are over. We now operate in a new world with a neoteric and growth oriented international monetary system. It is clear that India must move forward with the rest of the world, and make the most of the many options and opportunities open to it. The strategies of development, both for the internal economy as well as for international trade and commerce, must be attuned to such requirements and propensities.
- There is still a bias in the world bodies against the Third World. Besides the conditionalities profounded by the IMF, the World Bank and its affiliates are not always in the best interest of the countries being granted finance. These are very often linked to the interest of the developed world. As for ADB India has been on several occasions treated as the unwanted cousin. However, all intermodal financial organizations are going through and will go through the changes in outlook and facilities. It is to be expected that these organizations will carry greater responsibilities about socioeconomic development of the Third World than hitherto.

30.6 Key-Words

1. UNCTAD : The United Nations Conference on Trade and Development (UNCTAD) was established in 1964 as a permanent intergovernmental body. It is the principal organ of the United Nations General Assembly dealing with trade, investment, and development issues.
2. Shareholders : A shareholder or stockholder is an individual or institution (including a corporation) that legally owns a share of stock in a public or private corporation.

30.7 Review Questions

1. Explain the role of UNCTAD and development.
2. What is the role of international monetary fund? Discuss.

Answers: Self-Assessment

- | | | |
|------------|----------|-----------|
| 1. (i) (d) | (ii) (b) | (iii) (d) |
| (iv) (b) | (v) (b) | (vi) (b) |

30.8 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 31 : India's Trade Policy : Recent Developments

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Objectives

After reading this Unit students will be able to:

- Explain India's Foreign Trade Policy.
- Know Export-Import Policy.
- Describe Foreign Trade Policy.

Introduction

Advanced countries like Germany, U.S.A., Japan and others used their trade policy to (a) restrict their imports and provide a sheltered market for their own industries so that they could develop rapidly, and, (b) promote their exports so that their expanding industries could secure foreign markets. In other words, trade policy played a significant role in the development of the advanced countries. India, however, did not have a clear trade policy before Independence, though some type of import restriction—known as discriminating protection—was adopted since 1923 to protect a few domestic industries against foreign competition. It was only after Independence that a trade policy as part of the general economic policy of development was formulated by India.

Main features of India's trade policy

On the import side, India has been in a disadvantageous position vis-a-vis advanced countries which are capable of producing and selling almost every commodity at low prices. This meant that India could not develop any industry without protecting it from foreign competition. Import restriction—commonly known as protection—was thus essential to protect domestic industries and to promote industrial development. Since Independence, the Government of India has broadly restricted foreign competition through a judicious use of import licensing, import quotas, import duties and, in extreme cases, even banning import of specific goods. The Mahalanobis strategy of economic development through heavy industries, which India adopted since the Second Plan, called for (a) banning or keeping to the minimum the import of non-essential consumer goods, (b) comprehensive control of various items of imports, (c) liberal import of machinery, equipment and other developmental goods to support heavy-industries based economic growth, and (d) favourable climate for the policy of import substitution.

On the export side : To pay for its essential imports and to minimise dependence on foreign countries expansion of exports was very essential. It was also realised that the market for many goods within India may not be adequate to absorb that entire domestic production and hence a search for markets else where was a necessity. The Indian Government had to play an important role to promote exports

through setting up trading institutions, and through fiscal and other incentives. Vigorous export promotion was emphasised after the Second Plan to earn foreign exchange to overcome the acute foreign exchange crisis. In the 1970's, importance of export promotion was again emphasised because of mounting debt service obligations and the goal of self-reliance (with zero net aid).

Phases of India's trade policy

Five distinct phases in India's trade policy can be noted : the first phase pertains to the period 1947-48 to 1951-52, the second phase covering the period 1952-53 to 1956-57 and the third phase after 1956-57 to June, 1966; the fourth phase started after devaluation of the Rupee in June 1966 and the last phase after 1975-76.

During the first phase up to 1951-52, India could have liberalised imports but on account of the restrictions placed by the U.K. on the utilisation of the sterling balances, she had to continue wartime controls. Since our balance of payments with the dollar area was heavily adverse, an effort was made to screen imports from hard currency areas and boost up exports to this area so as to bridge the gap. This also necessitated India to devalue her currency in 1949. By and large, the Import policy continued to be restrictive during this period. Besides this, restrictions were also placed on exports in view of the domestic shortages.

During the second phase (1952-53 to 1956-57) liberalisation of foreign trade was adopted as the goal of trade policy. Import licences were granted in a liberal manner. An effort was also made to encourage exports by relaxing export controls, reducing export duties, abolishing export-quotas and providing incentives to exports. Liberalisation led to a tremendous increase in our imports but exports did not rise appreciably. Consequently, there was fast deterioration in our foreign exchange reserves. This necessitated a reversal of trade policy.

During the third phase which began in 1956-57, the trade policy was re-oriented to meet the requirements of planned economic development. A very restrictive import policy was adopted and the import controls further screened the list of imported goods. On the other hand, a vigorous export promotion drive was launched. The trade policy assumed that a lasting solution to the balance of payments problem lies in the promotion and diversification of our export trade. Not only should the export of traditional items be expanded, but export of newer items should also be encouraged. Similarly, import substitution industries should also be encouraged so that dependence on foreign countries be lessened. It was in this period that India's trade policy was thoroughly reviewed by the Mudaliar Committee (1962).

The fourth phase started after the devaluation of the rupee in June, 1966. During this period trade policy attempted to expand exports and strangely liberalised imports too. Actually, export promotion was given a big post through the acceptance and implementation of the commendations of the Mudaliar Committee (1962). The major recommendations included increased allocation of raw materials to export-oriented industries, income tax relief on export earnings, export promotion through import entitlement, removal of disincentives, and setting up of export Promotion Advisory Council, a Ministry of international Trade, etc. When these export promotion measures did not succeed and adverse balance of payments persisted, the Government of India undertook devaluation of the rupee in 1966 as a major step to check imports and boost exports. Initially devaluation was not successful and the adverse balance of payments worsened during the Annual Plans. But during the Fourth Plan, the trade policy was quite successful in restricting imports and promoting exports. This period continued till 1975-76.

During the last phase (1975-76 onwards), the Government adopted a policy of import liberalisation, with a view to encourage export promotion. During Janata rule (1977-79) import liberalisation was also adopted to augment domestic supply of essential goods and to check rise in price level. Import-export policy of the Indian Government attempted to achieve such objectives as : (i) to provide further impetus to exports; (ii) to provide support to the growth of indigenous industry; (iii) to provide for optimum utilisation of the country's resource endowments, especially in man-power and agriculture; (iv) to facilitate technology up-gradation with special emphasis on export promotion and energy conservation; (v) to provide a stimulus to those engaged in exports and in particular, to manufacturing units contributing substantially to the export efforts; and (vi) to effect all possible savings in imports.

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Thus, it is clear that the purpose of trade policy has been to stimulate economic growth and export promotion via import liberalisation.

While framing the export-import policy (1985), the Government was guided by the recommendations of Abid Hussain Committee. Whereas the Committee emphasized the need for striking a balance between export promotion and import substitution, the Government in its wave of import liberalisation permitted a much greater quantum of imports in the name of export promotion and capital goods imports for technological upgradation. Thus, grave distortions appeared in the process of implementation of the recommendations of the Committee.

The first major attempt at liberalisation was made by the Rajiv Gandhi Government. As a result, in the four years from 1985-86 to 1989-90, exports surged forward and the period witnessed a record average annual growth of 17 per cent in dollar terms. Unfortunately exports declined by 9 per cent in 1990-91.

31.1 India's Foreign Trade Policy

Giving the rationale for the new policy, the Commerce Minister noted : For several decades, trade policy in India has been formulated in a system of administrative controls and licenses. As a result, we have a bewildering number and variety of lists, appendices and licences. This system has led to delays, waste, inefficiency and corruption. Human intervention—described as discretion—at every stage, has stifled enterprise and spawned arbitrariness.

The Government, therefore, decided that while all essential imports like POL, fertilizer and edible oil should be protected, all other imports should be linked to exports by enlarging and liberalizing the replenishment licence system. For this purpose, the following major reforms were announced:



The then Commerce Minister, Mr. P. Chidambaram, announced a major overhaul of trade policy on July 4, 1991.

Major Trade Reforms

1. Rep will become the principal instrument for export-related imports.
2. All exports will now have a uniform Rep rate of 30 per cent of the f.o.b. value. This was a substantial increase from the present Rep rates which vary between five per cent and 20 per cent of f.o.b. value.
3. The new Rep scheme gave maximum incentive to exporters whose import intensity was low. For example, agricultural exports which earlier had very low replenishment rates of five per cent or 10 per cent will now gain considerably.
4. All supplementary licences shall stand abolished except in the case of the small scale sector and for producers of life-saving drugs/equipment.
5. All additional licences granted to export houses shall stand abolished.
6. All items now listed in the Limited Permissible List OGL items would hereafter be imported through the Rep route.
7. The Exim policy contained a category known as Unlisted OGL. This category stands abolished and all items falling under this category may be imported only through the Rep scheme.
8. Advance licensing had been an alternative to the Rep route for obtaining imports for exporters. It was expected that many exporters would find the Rep route more attractive now. However, for exporters who wish to go through advance licensing, this route would remain open.
9. The goal of the government was to decanalise all items except those that are essential.

10. In the light of the substantial liberalisation of the trade regime, and also the recent changes in exchange rates (after devaluation), Cash Compensatory Scheme (CCS) was abolished from July 3, 1991.

Assessment of the Trade Policy

Trade Policy (1991) aimed to cut down administrative controls and barriers which acted as obstacles to the free flow of exports and imports. The basic instrument developed by the Policy was the Exim scrip in place of Rep licences. The purpose of this instrument was to permit imports to the extent of 30% on 100 per cent realisation of export proceeds. Obviously, the purpose was to bridge the BOP gap. Trade policy has streamlined various procedures for the grant of advance licences as also permit imports through exim scrips routes.

Since the time of Mudaliar Committee in 1962, the country has been fed on the slogan of export-promotion through import entitlement. Various instruments have been forged there after, but a long term view only underlined the fact that the country failed to check the faster growth of imports than that of exports during the last three decades. Under one pretext or another, the import window was opened much wider and this continued. There was a strong need to exercise extreme caution in liberalising imports, more so inessential imports.

To conclude, India's trade policy since Independence has been used as part of general economic policy to develop the country and to diversify the economy. Initially it took the form of restricting imports and boosting exports. It also took the form of organising international trade and bilateral and multi-lateral trade agreements. In the later years, trade policy took the form of export promotion through import liberalisation. Formulated by bureaucrats under the influence and guidance of Indian business houses and multinational giants, India's trade policy did have an important influence on the rapid development of the country, but it was basically responsible for leading the country into the classical debt trap.

Let us now analyse the two aspects of India's trade policy—import policy and export policy.

31.2 Export-Import Policy

The import policy in the post-independence period was guided by considerations of a growth-oriented policy which should ultimately lead us to the objective of self-reliance.

Export-Import Policy during First Decade of Planning

The needs of massive programme of industrialisation contemplated in the Second Plan led to the adoption of a liberal import policy in mid-50's. Imports went up sharply both in the private and public sectors. The schemes of modernisation, replacement and expansion undertaken in the private sector and the programmes of the building up of heavy and basic industries in the public sector led to an unprecedented rise in imports. Exports did not expand as planned. Accordingly, India lost all its accumulated sterling balances to pay off its adverse balance. The country also suffered from a serious shortage of foreign exchange—a veritable foreign exchange crisis. This necessitated a reversal of import policy and drastic restrictions were placed on imports.

During the Second Plan period, it was felt that export earnings could not be significantly increased unless industrialisation gathered momentum. This fact was given expression in Second Plan in the following words: "India's export earnings are derived from a few commodities. Three of them, namely, tea, jute and cotton textiles, account for nearly one-half of the quota. These major exports are meeting increasing competition from abroad. This limits the scope for any substantial increase in exports in the short run. While every effort has to be made to promote exports of new items and to develop and diversify the markets for country's major exports, it has to be recognised that it is only after industrialisation has proceeded some way that increased production at home will be reflected in large export earning.

Mudaliar Committee Recommendations

The Government appointed the Import and Export policy Committee headed by Mr. Mudaliar in 1962 to review Government's trade policy. The Committee felt that developmental and maintenance

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imports were both essential for a growing economy and therefore, urged upon the government to provide facilities for the import of raw materials, components, etc., for all existing industries subject to higher priorities to new industries in (i) power and transport which had proved a serious bottleneck; (ii) 'export-oriented' industries; and (iii) industries producing raw materials and components now imported. Industries depending almost entirely on indigenous raw materials could arrange their own foreign exchange for the import of plant and machinery. The recommendations of the committee were accepted by the Government.

The import policy of restriction of non-essential goods on the one side and liberalisation of imports of essential goods on the other was successful to a large extent—imports were controlled and exports were pushed up. This policy helped to reverse the persistent trade deficit.

Export-oriented Export-Import Policy

Since 1975-76, the Government of India has been following a liberalised import policy with the objective of increasing production, especially export production. There has been an increased emphasis on enhancing maintenance imports in order to promote capacity utilisation. Since the principal purpose of the import policy was to encourage exports, it is characterised as export-oriented import policy.

Export-Import Policy (1985)

Mr. Vishwanath Pratap Singh, the then Commerce Minister, announced the Export-import Policy on the 12th April 1985. For the first time, the Government announced the policy on a three-year basis. The basic aim of the new policy was to facilitate production through easier and quicker access to imported inputs, impart continuity and stability of Exim Policy, strengthen the export production base, facilitate technological upgradation and effect all possible savings in imports.

Import-Export Policy (1990)

The government announced on April 30, 1990 a new Import-Export Policy for a 3-year period. The Policy statement made it clear : "Improvement in our Balance of payments position can be achieved not so much through import curtailment as through promotion of exports. "The new policy has, therefore, provided further momentum to the ongoing process of liberalisation with emphasis on strengthening the impulses of industrial and export growth. The salient features of the new policy were :

1. List of items imported under Open General Licence (OGL) were expanded to facilitate easy access to import of items that are not available within the country.
2. The number of capital goods items permitted under OGL was increased from 1,261 to 1,343. This has been the major thrust of liberalisation.
3. Imports of certain raw materials such as petroleum products, fertilizers, oils/oilseeds, feature/video films, newsprint, cereals, phosphoric acid, ammonia etc. were canalised through public sector agencies in view of the essential character of these imports from the point of view of bulk consumption and the requirements of small Actual Users. However, trading houses/star trading houses were also permitted to import canalised items in order to promote exports.
4. A scheme of automatic licensing was introduced under which upto 10 per cent of the value of the previous year's licence can be imported.
5. For Registered Exporters, the concept of net foreign exchange earnings was made a guiding criterion for issue of licences thereunder.
 - (a) REP (Replenishment) licensing scheme was expanded and simplified.
 - (b) Export services like computer software, overseas management and consultancy service contracts as well as advertising jobs would qualify for import replenishments.
 - (c) Under the scheme of registration of Export Houses and Trading Houses, for determining eligibility, the annual average of net foreign exchange earnings in the base period should not be less than ` 5 crores for an Export House and ` 20 crores for a Trading House. These houses would be eligible for additional licences for import of raw materials, components,

consumables and tools and capital goods allowed under OGL, besides other limited permissible items and canalised items.

- (d) A scheme of Star Trading Houses was introduced for exporters with an average annual net foreign exchange earnings of ` 75 crores in the preceding three licensing years of the base period.
- (e) Under the Duty Exemption Scheme, Blanket Advance Licensing was introduced for manufacturer-exporters having a minimum net foreign exchange earnings of ` 10 crores during the preceding 3 years.
- (f) The Import-Export Passbook Scheme introduced in January 1986 was withdrawn.

Evaluation of India's Export-Import Policy

The 1985 import policy was broadly welcomed by various Chambers of Commerce and Industry, business and industrial houses and leading industrialists. The policy aimed at restricting unnecessary imports, but permitted imports for encouraging indigenous production and promoting exports. The policy also intended to pursue technological upgradation through imports. The policy was aware of the need to check dumping of goods by multinationals and, therefore, gave support to the indigenous industries by selective restrictions on imports. Another welcome feature of the import policy was the fillip it gave to the small-scale and cottage industries as well as to agricultural exports, all this would help to maximise utilisation of our manpower and agricultural resources. As regards promotion of exports, the import policy contained clear cut measures to expand India's exports. The various measures were direct and positive and a general feeling was that India's import policy was clearly export-oriented.

However, critics noted some developments of a serious nature which would adversely affect our economy. They are :

- (i) **Adverse effect on the growth of capital goods industry in India :** The most serious liberalisation has been attempted in the Exim Policy 1985-86 in the Capital Goods List bringing 208 items under the OGL list. Among the additions was microprocessor based equipment, machine tools, spinning machines, jute machinery etc. The impact of this wave of liberalisation is bound to be adverse. Given the limited size of the market and the problems of technology transfer and the procedural bottlenecks created by licensing, the development of capital goods industry which was never a very lucrative proposition for Indian industrialists, was made much more frightening in the wake of liberal imports of customs duty concessions.
- (ii) **Import policy likely to hit small-scale industries :** Although the statement of objectives specifically mentioned encouragement of the small-scale sector, but the measures suggested do not match with the professed aims. Rather the Government in the name of modernisation was helping big business to import labour-saving machinery. **Economic and Political Weekly** exposing double talk of the Government mentioned : "the government's pretensions of encouraging the handloom sector by controlling the textile industry are exposed by the fact that the latest in the labour-saving textile machinery, air jet and water jet looms (including shuttle-less looms), have been placed under OGL on the plea of modernisation."
- (iii) **Adverse effect on indigenous industry :** The new import policy was trying to over-reach its objectives of liberalisation and under pressure from multi-nationals opened areas in which indigenous industry had adequate capacity. There was certainly far reaching implications of such sweeping relaxations in imports. The Gujarat State Fertilizer Corporation (GSFC) and the Soda Ash Industry have been continuously pleading before the Government to restrict imports of caprolactum and soda ash since it would hit their interests adversely but the powerful multinationals forced the Government to dump these raw materials in India. This posed a problem of survival for the indigenous industry.
- (iv) **Technological dumping in the name of technology upgrading :** According to **RBI Report on Currency and Finance (1989-90)**, capital goods imports increased from ` 3,168 crores in 1984-85 to ` 8,831 crores in 1989-90 i.e., they have grown at an annual growth rate of 22.8 per cent during the 5 year period. There is, therefore, a relentless drive for unfettered import of capital

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goods, design and drawings and technology. This is a dangerous trend from the country's point of view. Criticising this approach, the **Economic and Political Weekly** mentioned: "What is missed in this line of reasoning is that production capacities once built on imported technologies and imported capital goods have to be sustained by imported raw materials, spares and parts. The so-called "inflexible imports" are, therefore, destined to grow constantly and relentlessly." Secondly, experience has also shown that the multinationals are hardly interested in technology transfer. Rather they in the name of technological upgradation, carry on 'technological dumping' of such technologies which have been superseded in the developed countries. This, the critics argue, is far more deleterious than dumping of goods—including capital goods.

From the foregoing analysis, it becomes evident that opening the door of imports much wider would result in increasing the trade gap. Such indiscriminate liberalisation would create more dependence in terms of foreign exchange and widen the trade gap.

Export-Import Policy (2002-2007)

Union Commerce and Industry Minister Mr. Murasoli Maran announced the EXIM policy for the 5 year period (2002-07) on March 31, 2002. The main thrust of the policy was to push India's exports aggressively by undertaking several measures aimed at augmenting exports of farm goods, the small scale sector, textiles, gems and jewellery, electronic hardware etc. Besides these, the policy aimed to reduce transaction cost to trade through a number of measures to bring about procedural simplifications.

The salient features of Exim policy were as under :

- I. Special Economic Zones :** Indian banks were allowed to set up offshore banking units (OBUs) in special Economic zones. These units would act as magnets to attract foreign direct investments. These offshore banking units would be virtually foreign branches of Indian banks, but located in India. OBUs would be exempt from cash reserve ratio (CRR), statutory liquidity ratio (SLR) and would give access to SEZ units and SEZ developers to international finance at international rates. This measure was aimed to make special Economic Zones internationally competitive.
- II. Employment Oriented Measures :** EXIM (2002-07) policy initiated a number of measures which would help employment orientation. Among them were the following :
 - (a) Agriculture :** Exim policy removed all quantitative restrictions on all agricultural products except a few sensitive items like jute and onions.
 - (b) Cottage sector and handicrafts :**
 - (i) An amount of ` 5 crores under market access initiative (MAI) were earmarked for promoting cottage sector exports coming under KVIC. The units under handicrafts could also access funds under MAI.
 - (ii) Under export promotion capital goods (EPCG) scheme, these units would not be required to maintain an average level of exports, while calculating export obligation.
 - (iii) These units would be entitled to the benefit of Export House status on achieving lower average export performance of ` 5 crore as against ` 15 crores for others; and
 - (iv) The units in handicraft sector would be entitled to duty-free imports of an enlarged list of items up to 3 per cent of f.o.b value of their exports.
 - (c) Small scale industry :** With a view to encouraging further development of centres of economic and export excellence such as Tirpur for hosiery, woollen blankets in Panipat, woollen knitwear in Ludhiana, following benefits would be available to small-scale sector.
 1. Common service providers in these areas would be entitled to the facility of Export Promotion Capital Goods (EPCG) Scheme.
 2. Entitlement for Export House status at ` 5 crores instead of ` 15 crores for others.
 - (d) Textiles :** Duty entitlement passbook (DEPB) rates for all kinds of blended fabrics permitted. Such blended fabrics were to have lower rate as applicable to different constituent fabrics.
 - (e) Gems and jewellery :** Rough diamonds import allowed on zero custom duty basis.

III. Growth-Oriented**Notes**

- (a) **Strategic package for status holders :** The status holders would be eligible for the following facilities :
 - (i) 100 per cent retention of foreign exchange in exchange earners foreign currency (EEFC) account.
- (b) **Neutralising high fuel cost :** Fuel costs to be rebated for all export products. This would enhance the cost competitiveness of our export products.
- (c) **Diversification of markets :** The following initiatives have been taken :

Focus LAC (Latin American Countries) was launched in November 1997 in order to accelerate trade with these countries. Our exports to these countries have increased by 40 per cent. To consolidate the gains of these programmes, this was extended upto March 2003.

Focus Africa was launched in April 2002. There is a tremendous potential for trade with sub-Saharan African region. During 2000-01, Indian exports to this region accounted for US \$1.8 billion and imports were \$1.5 billion.

IV. Duty Neutralisation Instruments

- (a) **Advance licence :** Duty Exemption Entitlement Certificate (DEEC) book was abolished. Redemption on the basis of shipping bills and band realisation certificates.
Withdrawal of advance licence for annual requirement (AAL) as problems were encountered in closure of AAL. The exporters could avail of advance licence for any value.
- (b) **Duty entitlement pass book (DEPB) :** value cap exemption granted on 429 items to continue.
- (c) **Export promotion capital goods (EPCG) :** licences of ` 100 crore or more to have 12 year export obligation period with 5 year moratorium period.

Assessment of EXIM Policy (2002-07)

Mr. Murasoli Maran, the then Minister for Commerce and Industry took a number of initiatives by providing tax concessions, streamlining certain procedures and removing quantitative restrictions. Another positive feature of the policy was have 'Focus Africa' so that Indian exports to African countries can be developed. This initiative would help Indian exporters to explore this fast growing market which has been neglected earlier.

A big initiative to permit offshore banking units (OBUs) would help to develop foreign branches of Indian banks. The move was intended to provide international finance at international rates. This would lower the cost of credit to our exporters and thus make them more competitive. This initiative, specially directed at Special Economic Zones was another healthy feature of the Exim Policy.

However, critics raised several issues which need consideration. EXIM policy intended to boost the export of agriculture. In this effort, it intended to export wheat and thus reduce the mounting bufferstocks of foodgrains reaching the astonishingly high figure of 58 million tonnes in on January 1, 2002. There are two options before the government—(i) to export these foodgrains and earn foreign exchange and (ii) to use these foodgrains in 'food for work' programme and thus create employment in public works programme. It is really very disappointing that the Food Corporation of India is selling wheat in the international market as cattle feed at throw away prices. The question arises : Why is the quality of wheat procured by FCI poor when the Government continues to raise the support price of wheat for the farmers year after year ? It only speaks volumes about rampant corruption in FCI. The failure of the Central Government to persuade state governments to lift foodgrains from FCI is evident from the fact that as against an allocation of 28.55 million tonnes in 2000-01 in case of rice and wheat, the offtake was merely 11.72 million tonnes which is only 41 per cent of the allocation. This was mainly the consequence of an irrational policy fixing the issue price of foodgrains quite high. The result was that the public preferred to buy foodgrains from the open market. The Government, if it wants to increase the exports of agricultural products, should pay

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more attention toward improving the quality of rice and wheat procured so that it can fetch a good price in the international market.

EXIM Policy has laid great emphasis on Special Economic Zones (SEZs) which is a new incarnation of the Export Promotion Zones (EPZ) and Export-oriented Units (EOUs) promoted earlier. But the experience of the EPZ and EOUs has not been very happy. Together they account for only 12% of total exports. Too many procedural hurdles have prevented them from performing better. It would be very wise if the Special Economic Zones are not saddled with such excessive bureaucratic hurdles and are enabled to capture export markets. It may be noted the Special Economic Zones in China account for over 40 per cent of Chinese exports. India should learn to improve the performance of SEZs.

EXIM Policy made some concessions to help cottage and handicraft sector and small scale units which account for nearly 35 percent of the country's exports. But ironically, the policy did not pay adequate attention to the most important aspect of increasing bank credit to this sector.

Table 1 : Exports and Imports of Gems and Jewellery : India

(US \$ million)

| | Gross Exports (1) | Imports (2) | Net Exports 3 = 1-2 | 3 as % of 1 |
|---------|------------------------------|------------------------|--------------------------------|--------------------|
| 1995-96 | 5,275 | 2106 | 3169 | 60.1 |
| 1999-00 | 7,550 | 5346 | 2114 | 28.0 |
| 2000-01 | 7384 | 4838 | 2546 | 34.9 |
| 2001-02 | 7306 | 4623 | 2683 | 36.7 |
| 2002-03 | 9030 | 6063 | 2967 | 32.9 |
| 2003-04 | 10,573 | 7129 | 3444 | 32.6 |
| 2004-05 | 13,761 | 9422 | 4339 | 31.5 |
| 2005-06 | 15529 | 9134 | 6395 | 41.2 |
| 2006-07 | 15977 | 7487 | 8490 | 53.1 |
| 2007-08 | 19657 | 7975 | 11682 | 59.4 |
| 2008-09 | 27,955 | 16,554 | 11,401 | 40.8 |
| 2009-10 | 29,000 | 16,164 | 13,836 | 47.7 |
| 2010-11 | 40,791 | 31,262 | 9,529 | 23.4 |

Source : Computed from the data provided in Economic survey (2003-04) and (2005-06), RBI, Handbook of Statistics on the Indian Economy 2009-10. Economic Survey 2009-10.

The policy allowed import of rough diamond duty free. But if we examine the proportion of net exports of diamonds in total exports of gems and jewellery, it becomes evident that this share has declined from 60.1 percent in 1995-96 and 28 percent 1999-2000, but later on it improved again to 59.4 percent in 2007-08. In 2009-10 it was 47.7 per cent, which again fell to 23.4 percent in 2010-11. We note a decline in this proportion of net export of gem and jewellery which may be attributed to global slowdown. This underlines the fact that mere reduction of import-duty does not provide the much needed elasticity to exports.

To sum up, it may be mentioned that Commerce and Industry Ministry alone cannot create an environment to boost exports. For this purpose, it has to co-ordinate with the Ministry of Power and Transport so that the delays in handling of goods for export can be taken care of. Similarly, the Commerce Ministry has to persuade the Ministry of Finance to allocate more resources for infrastructure development. Not only that, the Centre and State Governments must co-ordinate to fulfil the objective of increasing exports. This can be done by making our exports more competitive. This requires an improvement of technology in the export sector and the development of an efficient infrastructure.

31.3 Foreign Trade Policy

Notes

Union Commerce and Industry Minister Mr. Kamal Nath announced the Foreign Trade Policy for the 5-year period (2004-09) on 31st August 2004 which aimed at doubling India's percentage share in global merchandise trade from 0.7 per cent in 2003 to 1.5 per cent 2009. During 2003-04, India's merchandise exports were valued at \$ 61.8 billion accounting for about 0.7 per cent of world's exports. If this share was to be doubled, it would imply that the country's exports would have to reach \$ 195 billion by 2009, assuming a 10 per cent compound annual growth rate in world trade. For this purpose, India's exports should grow at the annual average growth rate of 26 per cent. Besides this, the service sector is also expected to increase its share in export of invisibles to over \$ 100 billion. Together, the two sectors are expected to reach the target of \$ 300 billion by 2009.

The objective of the Foreign Trade Policy is two-fold :

- (i) To double India's percentage share of global merchandise trade from 0.7 per cent in 2003 to 1.5 per cent in 2009; and
- (ii) To act as an effective instrument of economic growth by giving a thrust to employment generation, especially in semi-urban and rural areas.

Key strategies to achieve these objectives are :

1. Unshackling of controls;
2. Creating an atmosphere of trust and transparency;
3. Simplifying procedures and bringing down transaction costs;
4. Adopting fundamental principle that duties and levies should not be exported; and
5. Identifying and nurturing special focus areas to facilitate development of India as a global hub for manufacturing, trading and services.

Special Focus Initiatives : Sectors with significant export prospects coupled with potential for employment generation in semi-urban and rural areas have been identified as thrust sectors. These include agriculture, handicrafts, handlooms, gems and jewellery and leather and footwear sectors.

The threshold limit of designated "Towns of Export Excellence" is reduced from ` 1,000 crores to ` 250 crores in these thrust sectors.

Package for Agriculture : A new scheme called Vishesh Krishi Upaj Yojana (Special Agricultural Produce Scheme) was introduced to boost the exports of fruits, vegetables, flowers, minor forest produce and their value added products. Export of these products shall qualify for duty free credit entitlement equivalent to 5% of FOB value of exports.

Handlooms and Handicrafts : Duty free import of handlooms and handicrafts sector was increased to 5% of FOB value of exports.

Gems and Jewellery : Imports of gold of 18 carat and above shall be allowed under the replenishment scheme.

Export Promotion Scheme : A new scheme to accelerate growth of exports called "Target Plus" has been introduced. Exporters would be entitled to duty free credit based on incremental exports substantially higher than the general export target. For incremental growths of over 20 per cent, 25 per cent and 100 per cent, the duty free credit would be 5 percent, 10 per cent and 15 per cent respectively, of FOB value of incremental exports.

Service Exports : For services export, a "Served from India" scheme as a brand instantly recognized abroad, under which individual service providers earning foreign exchange of ` 10 lakh would be eligible for duty free credit entitlement of 10 per cent of total foreign exchange earned by them.

Duty free Import under EPCG : Duty free import of capital goods under EPCG (Export Promotion Capital Goods) Scheme. Capital good imported under EPCG for agriculture would be permitted to be installed anywhere in an export zone.

EOUs : Export Oriented Units (EOUs) shall be exempted from service tax in proportion to their exported goods and services.

Notes

New Status Holder Categorization : A new rationalized scheme of categorization of status holders in Star Export houses has been introduced :

| | |
|-------------------------|-----------------|
| One Star Export House | ₹ 25 crores |
| Two Star Export House | ₹ 100 crores |
| Three Star Export House | ₹ 500 crores |
| Four Star Export House | ₹ 1,500 crores |
| Five Star Export House | ₹ 5, 000 crores |

Star Export Houses would be entitled to a number of privileges including fast-track clearance procedures, exemption from furnishing bank guarantees, eligibility for consideration under target plus scheme etc.

Free Trade and Warehousing Zone

- (i) A new scheme to establish Free Trade and Warehousing Zone (FTWZs) was introduced to create trade related infrastructure to facilitate the import and export of goods and services with freedom to carry out trade transaction in free currency. This was aimed at making India into a global trading hub.
- (ii) FDI would be permitted up to 100% in the development and establishment of the zones and their infrastructure facilities.
- (iii) Each zone would have minimum outlay of ₹ 100 crores and five lakh *sq.mt.* built up area.
- (iv) Units in FTWZs would qualify for all other benefits as applicable for SEZ units.

Import of Second-hand Capital Goods

Import of second-hand capital goods would be permitted without any age restriction.

Bio-technology Parks : Bio-technology parks to be set up which would be granted all facilities of 100 % EOUs.

Assessment of Foreign Trade Policy (2004-09)

Commerce Minister Kamal Nath by announcing the new Foreign Trade Policy (2004-09) intended to achieve two objectives simultaneously, that is, to double India's share in world exports from 0.7 per cent in 2003-04 to 1.5 per cent in 2008-09 as also to give a big thrust to employment generation, especially in semi-urban and rural areas. In that sense, the Foreign Trade Policy is in tune with the objectives laid down in the Common Minimum Programme. A basic feature of the FTP is that instead of emphasizing only removal of quantitative restrictions, it moved away from it and concentrated on initiating measures to promote exports in thrust areas identified by it. The main thrust areas were : Agriculture, handicrafts, handlooms, gems and jewellery and leather and footwear sectors. Since these areas were dominated by small and medium enterprises (SMEs), the thrust provided to SMEs was likely to boost exports as well as generate more employment. In that sense, the policy direction was very meaningful since it reached out to a much larger number of smaller business units and smaller business houses rather than merely concentrating on large five star export houses.

By rationalizing star export houses from one star to five star export houses, it aimed to "bestow status on a large number of hitherto unrecognized small exporters." Moreover, it shall provide an incentive for the small exporter to graduate from low category of star export house to the position of a higher star export house. The incentives will help the smaller entities to rise up on the ladder. This diversification and extension of outreach to a larger number of units is a welcome initiative.

Similarly, the lower threshold of designated towns of excellence from ₹ 1,000 crores should also be seen as part of this noble effort to include a larger number of towns in export promotion. Mr. Gopal K. Pillai, Director General of Foreign Trade in this connection rightly stated : "Reduction in the cost of developing towns of excellence from ₹ 1,000 crores to ₹ 250 crores, as proposed in the policy, is sufficient for improving the amenities in a town engaged exclusively in exports such as knitwear in Tirpur". The main purpose is to enlarge the spread of export centres.

Notes

Since the FTP intends to treble service exports, a number of welcome initiatives have been proposed. To build a brand equity "Served from India" is a unique step to push forward India's image in foreign markets. Secondly, the setting up of Services Export Promotion Council to deal with the problems of services in developing market access as also brand building can go a long way, if pushed forward with zeal and vigour.

The 'Target Plus Scheme' provides incentives on the basis of the performance of the exporter. The simple principle followed is : Higher the performance, higher is the duty-free credit entitlement. Such incentivization does bring about a competitive spirit to improve performance in the export sector by Indian players.

Another vital initiative was to exempt all goods and services exported from service tax. This is in line with the fundamental principle that duties and levies should not be exported. In other words, it improves the competitive strength of the Indian exporter in the international market.

Another initiative taken was to establish Free Trade and Warehousing Zone (FTWZ) to improve infrastructure in the foreign trade sector. The policy permitted 100% FDI (Foreign Direct Investment) in the development and establishment of zones and their infrastructural facilities. Some critics have argued that in China, FDI accounts for nearly 50 per cent of China's manufacturing export, whereas in India, it is only 8 per cent. It may be pointed out that FDI can help us to develop world class infrastructure, but if adequate FDI flows are not forthcoming, India should undertake investment in infrastructure on its own strength. Once India is able to prove its credentials in foreign trade, more FDI inflows will start.

Another issue which needed to be paid attention was to reduce the transaction cost, more so when the aim is to enthrone SMEs whose margins are not very high. The exemption from furnishing bank guarantee by exporters with minimum turnover of ₹ 5 crores, raising the validity of all licences and entitlements to a uniform 24 months and removal of service tax on all goods and services exports are all intended to reduce transaction cost.

Last, but not the least, it may be said that while the policy initiatives are designed with good intentions and are steps in the right direction, the pace of success of FTP will depend on the quality of implementation. Bureaucracy is known for putting spokes in the wheel of implementation the major task of the government is to facilitate the SMEs and other major exporters to achieve the challenging goal set by the new FTP to achieve merchandise export target of \$ 195 billion and together with service sector, to earn \$ 300 billion in terms of foreign exchange by 2009. It really very courageous of the Commerce and Industry Minister to fix such a high target which requires more than 25 per cent annual average growth rate in exports. Since export growth is also conditioned by exogenous factors operating in the world trade, the achievement of the target may be made more difficult despite our best intentions. But all honour to those who try.

During 2007-08, out exports reached a level of US \$ 155 billion which is a creditable achievement. However, correspondingly our imports reached a level of \$ 236 billion, widening the trade deficit to an unprecedented high level of \$ 81 billion which cannot be wiped out by surplus on the invisibles. Consequently, current account balance will become negative with a larger magnitude. Obviously, our foreign trade policy is one-legged since it emphasizes expansion of exports only, but remains oblivious of the trend of imports. Ultimately, India must, reach the stage of positive trade balance, rather than develop an economy with burgeoning trade deficit.

Self-Assessment:

1. Choose the correct options:

- (i) The Indian Government has set up a committee to recommend the framework for cloud computing services. Who will chair the committee?
- | | |
|------------------|-------------------------|
| (a) Azim Premji | (b) Kris Gopalakrishnan |
| (c) Vineet Nayar | (d) NR Narayana Murthy |

Notes

- (ii) Foreign Direct investment destination by the World Investment Report 2012. Prepared by United National competence on Trade and Development?
 - (a) UK (b) Brazil
 - (c) China (d) USA
- (iii) Which among the following may not be a consequence of inflation?
 - (a) Higher speculative Investment (b) Equal distribution of Income
 - (c) Fall in Real Income of Salaried People (d) Higher production
- (iv) In the Industrial Policy of 1991 how many industries were reserved only for public sector?
 - (a) 7 (b) 8
 - (c) 11 (d) 13

31.4 Summary

- India, however, did not have a clear trade policy before Independence, though some type of import restriction—known as discriminating protection—was adopted since 1923 to protect a few domestic industries against foreign competition. It was only after Independence that a trade policy as part of the general economic policy of development was formulated by India.
- On the import side, India has been in a disadvantageous position vis-a-vis advanced countries which are capable of producing and selling almost every commodity at low prices. This meant that India could not develop any industry without protecting it from foreign competition. Import restriction—commonly known as protection—was thus essential to protect domestic industries and to promote industrial development. Since Independence, the Government of India has broadly restricted foreign competition through a judicious use of import licensing, import quotas, import duties and, in extreme cases, even banning import of specific goods. The Mahalanobis strategy of economic development through heavy industries, which India adopted since the Second Plan, called for (a) banning or keeping to the minimum the import of non-essential consumer goods, (b) comprehensive control of various items of imports, (c) liberal import of machinery, equipment and other developmental goods to support heavy-industries based economic growth, and (d) favourable climate for the policy of import substitution.
- During the first phase up to 1951-52, India could have liberalised imports but on account of the restrictions placed by the U.K. on the utilisation of the sterling balances, she had to continue wartime controls. Since our balance of payments with the dollar area was heavily adverse, an effort was made to screen imports from hard currency areas and boost up exports to this area so as to bridge the gap. This also necessitated India to devalue her currency in 1949. By and large, the Import policy continued to be restrictive during this period. Besides this, restrictions were also placed on exports in view of the domestic shortages.
- Trade Policy (1991) aimed to cut down administrative controls and barriers which acted as obstacles to the free flow of exports and imports. The basic instrument developed by the Policy was the Exim scrip in place of Rep licences. The purpose of this instrument was to permit imports to the extent of 30% on 100 per cent realisation of export proceeds. Obviously, the purpose was to bridge the BOP gap. Trade policy has streamlined various procedures for the grant of advance licences as also permit imports through exim scrips routes.
- To conclude, India's trade policy since Independence has been used as part of general economic policy to develop the country and to diversify the economy. Initially it took the form of restricting imports and boosting exports. It also took the form of organising international trade and bilateral and multi-lateral trade agreements. In the later years, trade policy took the form of export promotion through import liberalisation. Formulated by bureaucrats under the influence and guidance of Indian business houses and multinational giants, India's trade policy did have an important influence on the rapid development of the country, but it was basically responsible for leading the country into the classical debt trap.

31.5 Key-Words

Notes

1. Foreign policy : A country's foreign policy, also called the foreign relations policy, consists of self-interest strategies chosen by the state to safeguard its national interests and to achieve its goals within international relations milieu. The approaches are strategically employed to interact with other countries. In recent times, due to the deepening level of globalization and transnational activities, the states will also have to interact with non-state actors
2. Trade policy : Trade policy is a collection of rules and regulations which pertain to trade. Every nation has some form of trade policy in place, with public officials formulating the policy which they think would be most appropriate for their country. The purpose of trade policy is to help a nation's international trade run more smoothly, by setting clear standards and goals which can be understood by potential trading partners. In many regions, groups of nations work together to create mutually beneficial trade policies.

31.6 Review Questions

1. What do you mean by Trade Policy? Discuss the main features of India's trade policy.
2. Write a short note on the Export-Import policy.
3. Discuss foreign policy.

Answers: Self-Assessment

1. (i) (b) (ii) (c) (iii) (b) (iv) (b)

31.7 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

Unit 32 : India's Balance of Payment

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Objectives

After reading this Unit students will be able to:

- Discuss India's Balance of Payments on Current Account.
- Explain the Balance of Payments Crisis.
- Know the Balance of Payments Since the New Economic Reforms of 1991.

Introduction

"The balance of payments of a country is a systematic record of all economic transactions between the 'residents' of a country and the rest of the world. It presents a classified record of all receipts on account of goods exported, services rendered and capital received by 'residents' and payments made by them on account of goods imported and services received from the capital transferred to 'non-residents' or 'foreigners'."

In the previous unit we have discussed the balance of trade, but the trade balance gives only a partial picture of a country's international obligations. In order to have a complete enumeration of international transactions, it is necessary to add to the net trade balance all other payments and receipts—this is the comprehensive balance of payments of a country in relation to the rest of the world.

The balance of payments of India is classified into (a) balance of payments on current account, and (b) balance of payments on capital account. The current account of the balance of payments of India includes three items : (a) visible trade relating to imports and exports; (b) invisible items, viz., receipts and payments for such services as shipping, banking, insurance, travel, etc., and (c) unilateral transfers such as donations. The current account shows whether India has a favourable balance or deficit balance of payments in any given year. The balance of payments on capital account shows the implications of current transactions for the country's international financial position. For instance, the surplus and the deficit of the current account are reflected in the capital account, through changes in the foreign exchange reserves of country, which are an index of the current strength or weakness of a country's international payments position, are also included in the capital account.

32.1 India's Balance of Payments on Current Account

1951-52 to 1955-56—The First Plan Period

During the First Plan period, the balance of payments was affected by the Korean War boom, American recession of 1953 and favourable monsoon at home which helped to boost agricultural and industrial production. (Refer Table 1).

While India had been experiencing persistent trade deficit, she had generally a surplus in net invisibles; accordingly India's adverse balance of payment during the First Plan was only ₹ 42 crores. The overall picture during the First Plan was, however, quite satisfactory.

1956-57 to 1960-61—The Second Plan Period

An important feature of the Second Plan period was the heavy deficit in the balance of trade which aggregated to ₹ 2,339 crores. Earnings on account of invisibles and donations from friendly countries totalled ₹ 614 crores. Making an allowance for these, the unfavourableness in the balance of payments during the Second Plan period was of the order of ₹ 1,725 crores. The highly unfavourable balance of payments in the Second Plan was the result of (a) heavy imports of capital goods to develop heavy and basic industries, (b) the failure of agricultural production to rise to meet the growing demand for food and raw materials from a rapidly growing population and expanding industry; (c) the inability of the economy to increase exports; and (d) the necessity of making minimum 'maintenance imports' for a developing economy. As a result, the foreign exchange reserves sharply declined and the country was left with no choice but to think of ways and means to restrict imports and expand exports.

Third Plan and Annual Plans and BOP

From Table 1 it is clear that the balance on current account was unfavourable during the Third Plan. This was mainly because (a) imports were expanding faster under the impact of defence and development and to overcome domestic shortages (import of foodgrains, for example) and (b) exports were extremely sluggish and failed to match imports. The imbalance in the current account of over ₹ 1,951 crores was financed by loans from foreign countries, PL 480 and PL 665 funds, loans from the World Bank and withdrawals from I.M.F. In spite of all these loans, assistance and withdrawals, there was also some depletion of foreign exchange reserves of the country.

The serious adverse balance of payments which started with the Second Plan continued relentlessly during the Third and the Annual Plans.

It will be observed that the trade deficit during the Annual Plans was quite large. This was because of the heavy imports of foodgrains to overcome famine conditions and internal shortage of foodgrains on the one side and inadequate exports due to economic recession on the other. Besides, devaluation of the rupee was a failure and instead of reducing the trade balance deficit, it further aggravated it. A very interesting development in this period was that net invisibles which used to be positive and which used to reduce the trade deficit, either dwindled or even became negative (for the first time). During this period, heavy amount had to be paid by India in the form of interest payments on loans contracted earlier. This wiped out the surplus on invisible account. Consequently, the influence on net invisibles in reducing the balance of payments deficit was negligible.

1969-70 to 1973-74 : The Fourth Plan Period

One of the objectives of the Fourth Plan was self-reliance—i.e., import substitution of certain critical commodities (which are of key importance for the Indian economy) on the one side and export promotion so as to match the rising import bill, on the other. Accordingly, the Government managed to restrict imports and succeeded in expanding exports. On the import side, restriction of imports was made possible through good crops in 1968-69 and 1970-71, and consequent significant reduction of imports of foodgrains. On the export side, vigorous export promotion measures succeeded in boosting exports of traditional as well as non-traditional items.

The abnormal favourableness in the invisibles account in 1973-74 was due to the receipt of ₹ 1,680 crores from U.S.A. on the disposition of PL 480 and other rupee funds. The trade deficit during the Fourth Plan was ₹ 1,564 crores and the surplus in net invisibles accounted for ₹ 1,664 crores. The net result was a surplus in the balance of payments, for the first time, though the surplus was only a nominal amount of ₹ 100 crores.

1975-76 to 1978-79 : The Fifth Plan Period

During the Fifth Plan, trade balance was affected by two factors : (a) the value of imports was rapidly mounting due to the hike in oil prices, and (b) the value of exports was also rising under the impact

Notes

of promotional measures. These two factors explained the gradual decline in the deficit in the trade balance and the appearance of a surplus in the trade balance in 1976-77. But the persistent upward rise in imports and the inadequate increase in exports due to the relative decline in export prices were responsible for the revival of deficit trade balance in the last two years of the Fifth Plan period. Another outstanding feature of this period was the sharp increase in net invisibles receipts during 1975-76 to 1978-79. Table 1 shows that net invisibles amounting to ` 6,261 crores more than made up the trade balance deficit of ` 3,179 crores and thus India was able to have huge surplus balance of payments of ` 3,082 crores. For the first time since planning started, India was in a comfortable position in its external account.

**Notes**

The main factors responsible for the increase in invisible receipts were : (i) stringent measures taken against smuggling and illegal payment transactions; (ii) the relative stability in the external value of the rupee at a time when major international currencies were experiencing sizeable fluctuations; (iii) increase in earnings from tourists; (iv) the growth of earnings from technical, consultancy and contracting services; and (v) increase in the number of Indian nationals going abroad for employment and larger remittances sent by them to India.

The Sixth and the Seventh Plan Period

There has been a sea change in the balance of payments position since 1979-80. As against the surplus balance of payments experienced by the country during the whole of the Fifth Plan, India started experiencing adverse balance of payments from 1979-80 onwards. For one thing, trade deficit began to widen from 1978-79. The trade deficit which was more than offset by the flow of funds under net invisibles during the Fifth Plan period, could not be so offset since 1979-80. The current balance of payments became adverse to the tune of ` 11,384 crores during the Sixth Plan. Apart from net external assistance, India had to meet this colossal deficit in the current account through withdrawals of SDRs and borrowing from IMF under the extended facility arrangement. Besides, India used part of its accumulated foreign exchange reserves to meet its deficit in the balance of payments.

During 1985-86 and 1989-90, the total trade deficit amounted to ` 54,204 crores for the Seventh Plan. Making an adjustment for the positive balance on invisible account, the deficit in balance of payment on current account was ` 41,047 crores. The highly adverse balance of payments position was the cause for serious concern.

1990-91 and Thereafter

For the first time during the last 40 years, net invisibles became negative to the tune of ` 435 crores in 1990-91. This was largely the consequence of a net outflow of investment income of the order of ` 6,732 crores in 1990-91 as against ` 4,875 crores in 1989-90—as increase by 38 per cent. Thus, the cushion available through net invisibles to partly neutralise the trade deficit was removed.

During the Eighth Plan (1992-93 to 1996-97), trade deficit has been mounting, by 1996-97, it has reached a record level of ` 52,561 crores from that of ` 16,934 crores in 1990-91—a threefold increase. For the Eighth Plan period, invisibles neutralised the trade deficit to the extent of about 58 per cent—a really commendable achievement. Despite this, the balance of payments has shown continuously a deficit in all the years.

During 2001-02, although trade deficit was 54,955 crores, but the heavy receipts on account of invisibles amounting to ` 71,381 crores not only wiped out the trade deficit, they also created a surplus in current account balance of the order of ` 16,926 crores. Taking the entire Ninth Plan period (1997-98 to 2001-02), trade deficit was wiped out to the extent of 82 per cent by invisible account surplus. Consequently, the total deficit in current account balance was of the order of the ` 53,175 crores for the Ninth Plan.

Table 1: India's Balance of Payments on Current Account (1950-51 to 2010-11)

Notes

(` crores)

| Year | Trade Deficit | Net Invisibles | Balance of 3 Payments | as % of 2 |
|------------------------|------------------|-------------------|--------------------------|--------------|
| (1) | (2) | (3) | (4) | (5) |
| First Plan | —542 | + 500 | —42 | 92.2 |
| Second Plan | —2,339 | + 614 | —1,725 | 26.5 |
| Third Plan | —2,382 | + 431 | —1,951 | 81.1 |
| Annual Plans | —2,067 | + 52 | —2,015 | 2.5 |
| Fourth Plan | —1,564 | + 1,664 | + 100 | 106.4 |
| Fifth Plan | —3,179 | + 6,221 | + 3,082 | 195.7 |
| 1979—80 | —3,374 | + 3,140 | —234 | 93.1 |
| Sixth Plan | | | | |
| Total (1980—85) | —30,456 | + 19,072 | —11,384 | 62.6 |
| Seventh Plan | | | | |
| Total (1985—90) | —54,204 | + 13,157 | —41,047 | 24.3 |
| 1990—91 | —16,934 | —433 | —17,367 | —2.6 |
| 1991—92 | —6,494 | + 4,259 | —2,235 | —65.6 |
| Eighth Plan | | | | |
| 1992—93 | —17,239 | + 4,475 | —12,764 | 26.0 |
| 1993—94 | —12,723 | + 9,089 | —3,634 | 71.4 |
| 1994—95 | —28,420 | + 17,835 | —10,585 | 62.8 |
| 1995—96 | —38,061 | + 18,415 | —19,646 | 48.5 |
| 1996—97 | —52,561 | + 36,279 | —16,283 | 69.9 |
| Total 1992—97 | 149,004 | + 86,090 | —62,914 | 57.7 |
| Ninth Plan | | | | |
| 1997—98 | —57,805 | + 36,922 | —20,883 | 63.9 |
| 1998—99 | —55,478 | + 38,689 | —16,789 | 69.7 |
| 1999—2000 | —77,359 | + 57,028 | —20,331 | 73.7 |
| 2000—01 | —56,737 | + 45,139 | —11,598 | 79.5 |
| 2001—02 | —54,955 | + 71,381 | + 16,426 | 129.9 |
| Total 1997—02 | 302,334 | + 249,159 | —53,175 | 82.4 |
| 2002—03 | —51,697 | + 82,357 | + 30,660 | 159.3 |
| 2003—04 | —63,386 | + 127,369 | + 63,983 | 220.9 |
| 2004—05 | —151,765 | + 139,591 | —12,174 | 92.0 |
| 2005—06 | —229,664 | + 185,927 | —43,737 | 80.9 |
| 2006—07 | —279,962 | + 235,579 | —44,383 | 87.1 |
| Total 2002—07 | — 776,474 | + 770,823 | —5,651 | 99.3 |
| 2007—08 | —3,67,664 | + 3,04,185 | —63,479 | 82.7 |
| 2008—09 | —5,47,452 | + 4,19,821 | —1,27,631 | 76.7 |
| 2009—10 | —5,60,746 | + 3,80,120 | —1,80,626 | 67.8 |
| 2010—11 | —59,5028 | + 39,2494 | —20,2532 | 66.0 |

Notes

During the first two years of the Tenth Plan, in 2002-03 again our current account balance was positive to the extent of ` 30,660 crores and during 2003-04, it was of the order of ` 63,983 crores. But this was the consequent of a heavy surplus on invisibles account which not only wiped out the trade deficit, but yielded a net positive balance on current account. India has the unique distinction that though during the 3-year period 2001-02 to 2003-04, our trade balance showed a massive deficit, a big inflow of net invisibles, resulted in a positive balance on current account.

However, during 2004-05, there was a huge trade deficit of the order of ` 1,51,765 crores on account of an unprecedented increase in our imports, although our exports also showed a big jump. There is no doubt that our invisibles showed a record positive balance of ` 1,39,591 crores in 2004-05, but this could wipe out the trade deficit only to the extent of 92 percent. Consequently, a current account deficit of ` 12,174 crores was witnessed in 2004-05. This is an unhealthy development, but since the same reckless policy of import liberalisation is being pursued later also, the situation worsened further and current account deficit increased to the extent of ` 43,737 crores in 2004-05 and ` 1,31,614 crores in 2008-09. However, taking the Tenth Plan period (2002-03 to 2006-07) as whole, the total current account deficit was of the order of ` 5,651 crores. The trade deficit in the Tenth Plan was wiped out by the surplus from invisibles to the extent of 99.3%.

However situation worsened in 2007-08, 2008-09 and 2009-10 as we find net invisibles fell short of trade deficit, resulting in heavy deficit of balance of payment to the tune of ` 6,34,79 crores 2007-08, ` 1,27,631 crores in 2008-09 ` 1,80,626 crore in 2009-10 and ` 202532 in 2010-11.

32.2 Balance of Payment Crisis

Basic aim of the 1985 Export—Import Policy was

- (a) to facilitate production through easier and quicker access to imported inputs;
- (b) to strengthen export production base; and
- (c) to facilitate technological upgradation.

Although the Government has been maintaining that the policy is neither liberal nor restrictive, but the fact of the matter is that the policy led to a wave of indiscriminate liberalisation of imports.

On the other hand import of quite a large number of capital goods were brought under OGL. These 208 items included micro-processor based equipment, machine tools, spinning machines, jute machinery. In this wave of liberalisation, even in areas where indigenous machinery was produced by BHEL, imports were allowed. While the MMTC and Department of Electronics were not in favour of this indiscriminate liberalisation of imports, the powerful local and multi-national lobbies were able to persuade the government to permit liberalisation even in areas where an independent self-reliant indigenous sector was emerging. All this was done in the name of hi-tech and upgradation of technology. But as the then Prime Minister Mr. Rajiv Gandhi himself conceded in one of his interviews, this triggered off what may be described as "screw driver industrialisation."

Obviously, import liberalisation measures resulted in the emergence of the huge deficit in the balance of trade. The finance ministry, therefore, started working out proposals to curtail imports of machinery and equipment. Similarly, the introduction of MODVAT was also aimed at weaning away Indian industry from dependence on imported components to increased use of indigenous products. In other words, the policy was imperceptibly reversed toward self-reliance and the Government tacitly accepted its mistake in opening the import-window rather too wide.

In the name of technological upgradation, there was, therefore, an unfettered drive for import of capital goods, designs and drawings. All studies on technology transfer by multi-nationals indicate that in the name of technological upgradation, the multinationals carry on 'technological dumping' of such technologies which have been superseded in developed countries. Consequently, second-hand machinery is dumped in the name of import of capital goods. It is really this area which led to the growth of foreign dominance in collusion with Indian big business playing the role of the underpinning of the world economy.

The upshot of the entire analysis is that the crisis in the balance of trade and consequently its adverse impact on the balance of payments was the result of the policy of indiscriminate import liberalisation.

pursued underpressure from World Bank/IMF lobbies. Another disturbing feature of the situation was that export promotion has not been commensurate with the increase of imports.

Notes

Balance of Payment in the Seventh Plan and Thereafter

During the Seventh Plan (1985-86 to 1989-90), trade deficit of the order of ` 54,204 crores emerged. Net favourable balance in the invisible account was of the order of ` 13,157 crores and thus net balance of payment on current account was ` 41,047 crores. Economists identified the following factors :

Firstly, despite an encouraging rate of growth of exports, the pressure on the balance of payments has increased. During the Seventh Plan, the annual rate of growth of exports was of the order of 18.7 per cent per annum, but the rate of growth of imports was of the order of 16.8 per cent per annum. Since we started with a large volume of imports, even a smaller percentage growth of imports was able to offset a larger growth rate of exports and thus the deficit in balance of trade in absolute terms became higher.

Secondly, a major factor responsible for larger inflow of imports was the policy of import liberalisation.

Thirdly, there has been an increase in import-intensity due to the pattern of industrial development promoted during the Seventh Plan which catered to the demands thrown up by the upper income groups of the population. The shifts in income distribution in favour of the neo-rich classes resulted in higher demand for consumer durables, mention may be made of colour TVs, VCRs, air conditioners, refrigerators, motor cycles, cars, and other gadgetry. All these items of elitist consumption required assembly of kits, machinery and components imported from abroad. Thus luxury-consumption-led growth during the eighties could be appropriately described as import-intensive industrialisation. During 1980's as against the overall industrial growth of 7.7 per cent per annum, the growth rate of consumer durables segment was of the order of 12.4 per cent per annum.

Lastly, the relative steep depreciation of the rupee vis-a-vis other currencies also led to an increase in the value of imports. From ` 12.82 per dollar at the end of 1987, the rate of exchange depreciated to ` 18.05 at the end of 1989 and was around ` 31.36 per dollar in April 1993.

At the outset, it should be realised that the problem of adverse balance of payments of India is essentially due to the huge trade deficit which, in turn, is partly the result of persistently rising imports and partly due to slowly rising exports. The ultimate solution has to be found in restricting imports to the unavoidable minimum and promoting exports to the maximum.

Professor Sukhmoy Chakravarty in his work **“Development Planning—the Indian Experience (1987)”** questioning the policy of liberal imports wrote : “In my judgement, India's balance of payments is likely to come under pressure unless we carry out a policy of import substitution in certain crucial sectors. These sectors include energy, edible oils and nitrogenous fertilizers. In all these sectors, except fertilizers, India is getting increasingly dependent on imports resulting in a volatile balance of payments situation.”

Rangarajan Panel for Correcting BOP

Dr. C. Rangarajan, former Governor, Reserve Bank of India who headed the high level committee on balance of payments submitted its report on June 4, 1993. The Committee made the following findings and recommendations :

1. The Committee stressed the fact that a realistic exchange rate and a gradual relaxation of restrictions on current account transactions have to go hand in hand.
2. The Committee suggested that the current account deficit of 1.6 per cent of GDP should be treated as ceiling rather than as target.
3. A number of recommendations were made regarding foreign borrowings, foreign investment and external debt management. Very important among them were :
 - (a) The Government must exercise caution against extending concessions or facilities to foreign investors, which are more favourable than what are offered to domestic investors and also against enhancing external debt to supplement equity.

Notes

- (b) A deliberate policy of prioritizing the use to which external debt is to be put should be pursued and no approval should be accorded for any commercial loan with a maturity of less than five years for the present.
 - (c) The Committee was of the view that efforts should be made to replace debt flows with equity flows. However, it recognised that direct foreign investment would contain both debt and equity, and the system of approvals is applicable to all external debt. Therefore, as an operational guideline, the approval of debt linked to equity should be limited to ratio of 1 : 2.
4. The minimum foreign exchange reserves target should be fixed in such a way that the reserves are generally in a position to accommodate imports of three months.

A careful perusal of the recommendations of Rangarajan Panel on balance of payments reveals that it aimed to halt the process of indiscriminate permissions in the name of foreign investments in any branch of economic activity. The Committee, therefore, cautioned against extending concessions or facilities to foreign investors which are more favourable than what are offered to domestic investors. Similarly, the Committee has insisted that there should be a policy of prioritizing the use to which external debt should be put. The Report of Rangarajan Committee was a timely warning to manage our external debt and thus salvage our economy.

32.3 Balance of Payment Since the New Economic Reforms of 1991

New economic reforms were initiated in 1991 and an effort was made to step up exports so that a major part of the import bill is paid for by exports. Secondly, with a view to bring about technological upgradation, imports were liberalised. Along with this, in place of debt-creating inflows of capital, non-debt creating inflows such as foreign direct investment as well as portfolio investment were encouraged. The result of all these measures has been summarized in Table 2.

Data provided in Table 2 reveal that the most notable feature of the changing scenario in the balance of payments situation is that there has been a sharp increase in the coverage of imports by export earnings. In 1990-91, export earnings accounted for merely 66.2% of import bill, and this ratio sharply improved to 84.8% in 1993-94. **Economic Survey (1994-95)**, therefore, asserted : "The recent developments in India's external sector reflect a shift from a foreign-exchange constrained control regime to a more open market driven and liberalised economy. This has been facilitated by the structural change in the country's balance of payments which has occurred during the last few years. The most notable feature of this change has been the sharp increase in the coverage of imports by export earnings... during the last 3 years export earnings have, on an average, accounted for nearly 90 per cent of the value of imports". This marked improvement in the export-import ratio combined with an improvement in the invisibles account, has resulted in a sharp reduction in the current account deficit, which had come down from unsustainable levels of more than 3.2 percent of GDP to less than half a percent by 2003-04, but by the year 2007-08 it again surged to 1.5 percent GDP. In the meanwhile in few years even current account deficit turned to be surplus. This has been made possible due to rising export-import ratio till 2002-03 and later it started dipping again and came down as low as 60.6 percent in 2009-10. In 2010-11 it improved to 65.7 percent.

Table 2 also indicates that dependence on external assistance and external commercial borrowing has come down markedly. The ratio of external assistance to total capital inflow which had risen to about 27 per cent in 1990-91 came down to 19 per cent in 1993-94, but has risen again to 30 per cent in 1995-96 but continuously declined thereafter to reach a low level of 3.8 per cent in 2006-07. Similarly, external commercial borrowing which accounted for about 26 per cent of the total capital inflows in 1990-91 has again increased to 42 per cent in 1995-96 and further risen to 50.6 in 2000-01. But since rates of interest in the world markets have sharply gone down, this has resulted in a decline in debt service ratio. Table 2 reveals that debt service ratio which was 35.3 per cent in 1990-91 has also declined to 13.6 per cent in 2001-02. It has further declined to 6.1 per cent in 2004-05 but was 8.3 percent in 2010-11. The Government has, therefore, claimed that the economy has thus moved to a more stable and sustainable balance of payments in the nineties.

Another healthy feature of the changing scenario is that foreign reserves have more than doubled during 1993-94, from US \$ 6.4 billion at the end of March 1993 to US \$ 15.1 billion at the end of March

Notes

1994. The large build-up in foreign exchange assets has been made possible by large inflows of private foreign investments and Non-resident deposits. The foreign currency reserves have been further augmented to reach a level of \$ 24.9 billion at the end of June 1997 and still further to \$ 76.1 billion during 2002-03, and they shot up to \$ 302.34 billion in June 2008. In the year 2008-09, however we witness a decline in foreign exchange reserves to \$ 241.42 billion due to large scale outflow of foreign exchange by foreign institutional investors (FIIs). We again find an improved situation, as foreign exchange reserves reached \$ 305 billion in 2010-11. The continued strength of these reserves has saved the country from the impending balance of payments crisis which was looming large in 1991.

A point which needs serious consideration is : Is the escalation in these reserves a consequence of an improvement in the current account or the result of excessive borrowing or external assistance by bilateral or multilateral donors ? The answer obviously is : The sharp increase in foreign exchange reserves is the consequence of excessive borrowing and large inflows of external assistance. The Government has been trying to camouflage the situation by saying the non-debt creating assistance has been used to tide over the current crisis. But the distinction between debt and non-debt inflows does not reduce the burden of foreign exchange outflows. In case of debt, interest and amortization payments constitute outflows and in the case of non-debt creating assistance, it is royalties and dividend outflows that lead to foreign exchange outgo. Both situations impose burdens on the country. The difference is only in form and not in substance.

There is no doubt that both international and domestic factors have contributed to the deterioration in the balance of payments in 1997-98 and this is reflected by the increase in current account deficit to 1.4 per cent of GDP and trade deficit rising to 4.9 per cent of GDP in 2004-05. The situation has deteriorated further and the trade deficit as per data available from DGCI&S is of the order of US \$ 9.2 billion in 1998-99. This is because export (in US dollar terms) declined to US \$ 34.3 billion in 1998-99 as against US \$ 35.6 billion in 1997-98. The trade deficit has reached an unprecedented level of US \$ 7.9 billion in 1998-99. Obviously, this is likely to be 3.2 per cent of GDP. To describe the "BOP situation as manageable" as the Economic Survey (1998-99) does, is to conceal the hard reality that the fundamentals of the economy are not sound and that all measures of export promotion have not produced the desired effect. To meet this deficit by a larger inflow from Resurgent India Bonds of the order of US \$ 4.2 billion during 1998-99 from NRIs or larger inflow of foreign direct investment and external commercial borrowing only indicates the adoption of the dependency syndrome by international players. The internal resilience of the economy is still weak and the economy has to be strengthened. This is evident from the fact that the Rupee depreciated against the US dollar by about 7.1 per cent from ` 38.50 per US dollar in March 1998 to ` 45.68 per US dollar in 2000-01. The situation has further worsened to ` 47.49 per US dollar in April 2000. It would be, therefore, more prudent to adopt a cautious approach in admitting large inflows of external commercial borrowing, portfolio investment by foreigners and also larger contributions from NRIs in the form of bonds.

Table 2 : Changing Scenario of Balance of Payments (Ratio of Selected Items)

| | 1990 -91 | 1995 -96 | 1997 -98 | 2000 -01 | 2001 -02 | 2002 -03 | 2005 -06 | 2006 -07 | 2007 -08 | 2008 -09 | 2009 -10 | 2010 -11 |
|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| 1. Exports as % of imports | 66.2 | 74.0 | 69.7 | 78.5 | 79.5 | 83.4 | 67.0 | 67.0 | 66.35 | 61.4 | 60.6 | 65.7 |
| 2. Current account balance as % of GDP | -3.2 | -1.8 | -1.4 | -0.6 | 0.7 | 1.2 | -1.2 | -1.1 | -1.3 | -2.5 | -3.1 | -2.9 |
| 3. ECB/TC (%) | 26.8 | 42.0 | 42.6 | 50.6 | -19.0 | -15.9 | 10.1 | 34.8 | 20.2 | 92.8 | 5.7 | 3.1 |
| 4. NRI deposits /TC (%) | 18.3 | 37.1 | 12.0 | 27.2 | 33.0 | 28.0 | 11.2 | 9.3 | 0.16 | 59.2 | 5.5 | 5.4 |

Notes

| | | | | | | | | | | | | |
|--|------|------|-----|-----|------|-------|------|------|------|------|------|-----|
| 5. External assistance /TC (%) | 26.2 | 29.7 | 9.7 | 4.8 | 13.4 | -29.4 | 6.8 | 3.8 | 1.9 | 36.5 | 4.5 | 8.3 |
| 6. Import cover of FER (No. of months) | 2.5 | 6.0 | 6.9 | 8.8 | 11.5 | 14.2 | 11.6 | 12.5 | 15.0 | 9.8 | 11.2 | 9.6 |

Notes :

1. TC : Total Capital flows (net)
2. FER: Foreign exchange reserves
3. FCB : External Commercial Borrowings
4. As total capital outflows are netted after taking into account some capital outflows, the ratio against items 3, 4 and 5, in some years, add up to more than 100 per cent.

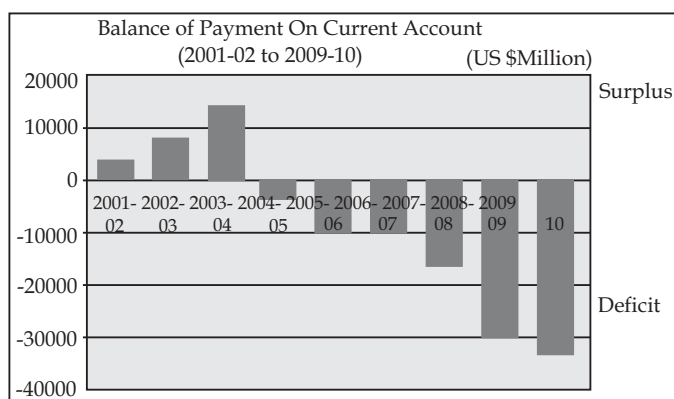
Source : Government of India, Economic Survey (2009-2010), RBI, Handbook of Statistics on the Indian Economy (2010-11).

Table 3 : Balance of Payments 2001-2002 to 2008-09 : Key Indicators

| | 2001-02 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------|------------------|-----------------|
| 1. Exports (f.o.b) | 44,703 | 66,285 | 85,206 | 105,152 | 1,28,888 | 1,66,162 | 1,89,001 | 1,82,235 | 2,50,468 |
| 2. Imports (c.i.f) | 56,277 | 80,003 | 118,908 | 157,056 | 1,90,670 | 2,57,629 | 3,07,651 | 3,00,609 | 3,30,935 |
| 3. Trade Balance | -11,574 | -13,718 | -33,718 | -51,904 | -61,782 | -91,467 | -1,18,650 | -1,18,374 | -130,467 |
| 4. Invisibles (net) | 14,974 | 27,801 | 31,232 | 42,002 | 52,217 | 75,731 | 89,923 | 79,991 | 86,186 |
| a. Services | 3,324 | 10,144 | 15,426 | 23,170 | 29,469 | 38,853 | 49,631 | 35,726 | 47,664 |
| b. Income | -4,206 | -4,505 | -4,979 | -5,855 | -7,331 | -5,068 | -4,507 | -8,040 | -14,863 |
| c. Private transfers | 15,398 | 21,608 | 20,525 | 24,687 | 30,079 | 41,995 | 44,798 | 52,305 | 53,368 |
| 5. Current Account Balance | 3,400 | 14,083 | -2,470 | -9,902 | -9,565 | -15,757 | -28,728 | -38,383 | -44,281 |
| 6. Capital Account | 8,551 | 16,736 | 28,022 | 25,470 | 45,203 | 1,06,585 | 67,685 | 53,397 | 59,747 |
| A. Foreign Investment | 6,686 | 13,744 | 13,000 | 15,528 | 14,753 | 43,326 | 3,467 | 51,167 | 37,434 |
| B. External assistance, net | 1,204 | -2,754 | 2,027 | 1,766 | 1,787 | 2,119 | 2,639 | 2,893 | 4,941 |
| C. Commercial borrowings, Net | -1,588 | -2,928 | 5,426 | 2,759 | 16,443 | 22,640 | 6,648 | 3,339 | 11,599 |
| D. Rupee debt service | -519 | -376 | -417 | -572 | -162 | -122 | -100 | -97 | -69 |
| E. NRI deposits, net | 2,654 | 3,642 | -964 | 2,789 | 4,321 | 178 | 4,289 | +3,792 | 3,239 |
| F. Other Capital | -1,640 | 4,076 | 7,259 | -3,183 | -5,961 | 10,969 | -3,990 | -13,016 | -10,440 |

Notes

| | | | | | | | | | |
|----------------------------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|
| 7. Overall | | | | | | | | | |
| Balance | 11,757 | 31,421 | 26,159 | 15,052 | 36,606 | 92,164 | -20,080 | -13441 | 13,050 |
| 8. F.E. Reserve Use | | | | | | | | | |
| (Increase - /Decrease) As | | | | | | | | | |
| percent of GDP | -11,757 | -31,421 | -26,159 | -15,052 | -36,606 | -92,164 | 20,080 | +13441 | 13,050 |
| Exports | 9.4 | 11.0 | 12.2 | 13.0 | 13.84 | 13.5 | 15.6 | 14.4 | 15.9 |
| Imports | 11.8 | 13.3 | 17.1 | 19.4 | 20.05 | 21.0 | 25.4 | 23.1 | 24.2 |
| Trade Balance | -2.4 | -2.3 | -4.8 | -6.4 | -6.8 | -7.4 | -9.8 | 8.7 | 8.3 |
| Invisible | | | | | | | | | |
| Balance | 3.1 | 4.6 | 4.5 | 5.2 | 5.7 | 6.2 | 7.4 | 7.0 | 5.5 |
| Current Account | | | | | | | | | |
| Balance | 0.7 | 2.3 | -0.4 | -1.2 | -1.1 | -1.3 | -2.4 | -3.1 | -2.8 |



During 2006-07 and 2007-08, there was an appreciation in the exchange rate of the Rupee vis-a-vis the US dollar. The exchange rate has declined from ` 44.27 in 2005-06 to ` 42.25 in 2006-07 and has further declined to ` 39.44 per US dollar in November 2007. This was also one of the reasons causing increasing trade deficit during 2007-08. However even depreciation of Indian rupees could not bring any relief in trade deficit during the year 2008-09. Year 2009-10 saw marginal fall in trade deficit. But in 2010-11 again trade deficit increased to \$ 130.5 billion.

The exports of the country must grow faster if the country wants to save itself from the balance of payments crisis. At the same time, a policy of selective import liberalisation in priority areas would help to strengthen the fundamentals of the economy.

Highlighting the changed situation in the current account balance, **Economic Survey (2005-06)** opined: "The year 2004-05 marked a significant departure in the structural composition of India's balance of payments (BOP), with the current account, after three consecutive years of surplus, turning into a deficit. (Refer table 4). In a significant transformation, the current account deficit, observed for 24 years since 1977-78, had started shrinking from 1999-00. The contraction gave way to a surplus in 2001-02, which continued until 2003-04. However, from a surplus of US \$ 14.1 billion in 2003-04, the current account turned into a deficit of US \$ 1.47 billion in 2004-05 and further to a deficit of US \$ 9.2 billion in 2005-06. The deficit was caused by a burgeoning excess of merchandise imports over exports, which was left uncompensated by the net surplus in invisibles. While the magnitude of deficit is one of highest in recent times, it underscored the rising investment demand in the economy. As a proportion of GDP, the turnaround in the current balance was from a surplus equivalent of 2.3 per cent in 2003-04 to a deficit of 0.4 per cent in 2004-05. For 2005-06 the current account deficit has shot up to US \$ 9.9 billion. The situation in 2006-07 also indicates a current account deficit of the order of \$ 9.766 billion. Situation worsened and current account deficit reached at \$ 15.7 billion in 2007-08. Situation

Notes

worsened even more during 2008-09, when current account deficit shot up to \$ 28.7 billion, as even much larger invisibles (net) receipt of \$ 89.9 billion was not able to fill the huge trade deficit of \$ 118.6 billion. Deficit in current account further shot up to \$ 38.4 billion in 2009-10 and \$ 44.3 in 2010-11. Since it is customary to look upon the Chinese experience as a role model, it may be pointed out that China had a current account surplus of 3.8 per cent of GDP in 1997 and has further improved this surplus to 6.1 per cent of GDP in 2005.

Invisibles and Balance of Payments

India has achieved commendable success in its receipts from invisibles. As a consequence, surplus from invisibles not only wiped out deficit in balance of trade, but also created a positive balance on current account. For instance, in 2003-04, trade deficit was of the order \$ 13.7 billion, but the surplus from invisibles shot up to \$ 27.8 billion. As a result, the balance of payment on current account became positive to the extent of \$ 14.1 billion.

It would be appropriate to study the components of invisible items so as to understand the importance of various items. Table 4 provides data from 2000-01 to 2010-11. It may be observed that on the side of receipts, among the services, the most important contribution is that of software services. But transfers in form of remittance from Indians abroad provide the highest contribution to receipts. Besides these two items, moderate contribution is also made by travel, transportation, investment income and miscellaneous items. *Economic Survey (2004-05)* in this connection mentions : "The main driver behind the current account surpluses, buoyant invisible flows, particularly private transfers comprising remittances, along with software services exports, have been instrumental in creating and sustaining current account surpluses for India." As a consequence, invisibles balance as a proportion of GDP increased from 3.1 percent 2001-02 to 4.5 percent in 2004-05. This situation further improved to 5.3 % of GDP in 2005-06 and 7.0 percent in 2009-10 but it declined to only 5.5 per cent in 2010-11. This is a healthy development.

On the payments side, two items are prominent –Miscellaneous services and investment income. These items accounted for over 73 percent of payments in 2003-04. In these two items, India shows a net deficit in invisibles. There is a need for exercising caution in this regard, more especially in continuous, unrestricted and sharp increase in foreign investment which generates a reverse flow in the form of investment income.

If we study the net balance on invisibles in 2010-11, services accounted for 55.3 percent, transfers accounted for 61.9 percent and investment income showed a net deficit of 17.2 percent.

It is vitally necessary to exercise caution regarding the warning signals in 2004-05. During 2004-05, the trade deficit has shot up to \$ 36.63 billion, while the invisibles surplus was \$ 31.23 billion, thus a deficit in current account has appeared again in 2004-05. The jubilation about the emergence of surplus in current account surplus during 2002-03 and 2003-04 dried up and India was once again back to its proverbial current account deficit. While the Commerce and Industry Minister has been feeling proud of the achievement in high growth rates in exports, there was a total negligence on his part to realize that the ground under his feet was being cut by a much sharper increase in imports. The situation has worsened between 2005-06 and 2010-11 and current account deficit shot up to \$ 44.3 billion by 2010-11.

Much of the relief in current account of balance of payment has been brought by net software exports, which has increase from mere \$ 355 million in 1997-98 to \$ 43,224 million in 2010-11, but this trend may taper off as China makes an inroad in the world software market. Similarly, remittances from Indians may also grow at a lesser rate in future since they are reaching peak levels.

The purpose is not to paint a gloomy picture, but draw attention to the emerging dangers in the external sector. The country has, therefore, to be vigilant about foreign payments account, as it has been having only a one-legged policy in this area of boosting exports.

Table 4 : Analysis of invisibles Account

Notes

| | | Net Balance on Various Items (US \$ million) | | | | | | | |
|----------------------|--|--|---------|---------|---------|---------|---------|---------|-----------------|
| | | 2000-01 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 2010-11 |
| A. Services | | 1,692 | 10,144 | 15,426 | 23,170 | 29,469 | 38,853 | 49,631 | 35,726 47,664 |
| | | (17.3) | (36.5) | (49.4) | (55.2) | (56.4) | (51.3) | (55.2) | (44.7) (55.3) |
| 1. Travel | | 693 | 1,435 | 1,417 | 1,215 | 2,439 | 2,091 | 1,469 | 2,517 4,043 |
| | | (7.08) | (5.16) | (4.54) | (2.89) | (4.67) | (2.76) | (1.6) | (3.1) (4.7) |
| 2. Transportation | | -512 | 879 | 144 | -2,120 | -94 | -1,500 | -1,534 | -757 397 |
| | | (-5.2) | (3.2) | (0.5) | (-5.0) | (-0.2) | (-2.0) | (-1.7) | (-1.0) (.5) |
| 3. Software | | | | | | | | | |
| Services | | 5,750 | 12,324 | 16,900 | 22,262 | 26,721 | 37,712 | 49,812 | 33,966* 43,224* |
| | | (58.7) | (44.3) | (54.1) | (53.0) | (51.2) | (49.8) | (55.4) | (42.5) (50.1) |
| 4. Miscellaneous | | -3,239 | -4,491 | -3,035 | 1,707 | 403 | 550 | -115 | |
| | | (-33.1) | (-16.2) | (-9.7) | (4.1) | (0.8) | (0.7) | (-0.1) | (-18.1) |
| B. Transfers | | 13,106 | 22,162 | 20,785 | 24,687 | 30,079 | 51,945 | 44,799 | 52,305 53,385 |
| | | (133.8) | (79.7) | (66.6) | (58.8) | (57.6) | (68.6) | (49.8) | (65.4) (61.9) |
| C. Income | | -5,004 | -4,505 | -4,979 | -5,855 | -7,331 | -5,067 | -4,507 | -8,040 -14,862 |
| | | (-51.1) | (-16.2) | (-15.9) | (-13.9) | (-14.0) | (-6.7) | (-5.0) | (-10.0) (-17.2) |
| Total (A+B+C) | | 9,794 | 27,801 | 31,232 | 42,002 | 52,217 | 75,731 | 89,923 | 79,991 86,186 |
| | | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) | (100.0) (100.0) |

Source : Compiled and computed from RBI Handbook of Statistics on the Indian Economy (2010-11), *Economic Survey 2010-11*.

Note : *includes miscellaneous

Self-Assessment:

1. Choose the correct options:

- What is the difference between GNP and GDP?
 - Net income for factors of production from abroad
 - Domestic transfers of income
 - International transfers in the capital account
 - Capital depreciation
 - Indirect business taxes
- If imports and exports are insignificant, then national income accounting shows that
 - net financial investment from foreign countries is negative.
 - the financial account is positive.
 - net financial investment from foreign countries is positive.
 - the financial account is negative.
 - national saving equals aggregate investment expenditure.
- Which of the following is NOT recorded in the balance of payments?
 - Official international reserves
 - Current account
 - Future account
 - Capital account
 - Financial account

Notes

- (iv) A purchase of foreign reserves by a country's central bank would be reflected as
 - (a) a credit in the capital account and a debit in the capital account.
 - (b) an entry in a separate account not in the balance of payments.
 - (c) a credit in the current account and a debit in the financial account.
 - (d) a credit in the financial account and a debit in the financial account.
 - (e) a debit in the current account and a credit in the financial account.
- (v) What does the term "balance of payments deficit" refer to?
 - (a) A decrease in the financial account.
 - (b) A negative statistical discrepancy.
 - (c) A decrease in official international reserves.
 - (d) A positive statistical discrepancy.
 - (e) An increase in official international reserves.
- (vi) What is the official settlements balance?
 - (a) Another name for the capital account.
 - (b) One of the accounts in the balance of payments.
 - (c) The balance of official transactions between the U.S. Treasury and the Bank of England.
 - (d) The balance of official transactions between the U.S. Treasury and the Federal Reserve System.
 - (e) Everything in the balance of payments except for official international reserves.

32.4 Summary

- The balance of payments of India is classified into (a) balance of payments on current account, and (b) balance of payments on capital account. The current account of the balance of payments of India includes three items : (a) visible trade relating to imports and exports; (b) invisible items, viz., receipts and payments for such services as shipping, banking, insurance, travel, etc., and (c) unilateral transfers such as donations. The current account shows whether India has a favourable balance or deficit balance of payments in any given year. The balance of payments on capital account shows the implications of current transactions for the country's international financial position. For instance, the surplus and the deficit of the current account are reflected in the capital account, through changes in the foreign exchange reserves of country, which are an index of the current strength or weakness of a country's international payments position, are also included in the capital account.
- Although the Government has been maintaining that the policy is neither liberal nor restrictive, but the fact of the matter is that the policy led to a wave of indiscriminate liberalisation of imports.
- On the other hand import of quite a large number of capital goods were brought under OGL. These 208 items included micro-processor based equipment, machine tools, spinning machines, jute machinery. In this wave of liberalisation, even in areas where indigenous machinery was produced by BHEL, imports were allowed. While the MMTC and Department of Electronics were not in favour of this indiscriminate liberalisation of imports, the powerful local and multi-national lobbies were able to persuade the government to permit liberalisation even in areas where an independent self-reliant indigenous sector was emerging. All this was done in the name of hi-tech and upgradation of technology. But as the then Prime Minister Mr. Rajiv Gandhi himself conceded in one of his interviews, this triggered off what may be described as "screw driver industrialisation."
- New economic reforms were initiated in 1991 and an effort was made to step up exports so that a major part of the import bill is paid for by exports. Secondly, with a view to bring about technological upgradation, imports were liberalised. Along with this, in place of debt-creating

inflows of capital, non-debt creating inflows such as foreign direct investment as well as portfolio investment were encouraged.

Notes

- There is no doubt that both international and domestic factors have contributed to the deterioration in the balance of payments in 1997-98 and this is reflected by the increase in current account deficit to 1.4 per cent of GDP and trade deficit rising to 4.9 per cent of GDP in 2004-05. The situation has deteriorated further and the trade deficit as per data available from DGCI&S is of the order of US \$ 9.2 billion in 1998-99. This is because export (in US dollar terms) declined to US \$ 34.3 billion in 1998-99 as against US \$ 35.6 billion in 1997-98. The trade deficit has reached an unprecedented level of US \$ 7.9 billion in 1998-99.
- India has achieved commendable success in its receipts from invisibles. As a consequence, surplus from invisibles not only wiped out deficit in balance of trade, but also created a positive balance on current account. For instance, in 2003-04, trade deficit was of the order \$ 13.7 billion, but the surplus from invisibles shot up to \$ 27.8 billion. As a result, the balance of payment on current account became positive to the extent of \$ 14.1 billion.

32.5 Key-Words

1. Development planning : Personal development planning is the process of creating an action plan based on awareness, values, reflection, goal-setting and planning for personal development within the context of a career, education, relationship or for self-improvement.
2. Balance of payments deficit : An imbalance in a nation's balance of payments in which payments made by the country exceed payments received by the country. This is also termed an unfavorable balance of payments. It's considered unfavorable because more currency is flowing out of the country than is flowing in. Such an unequal flow of currency will reduce the supply of money in the nation and subsequently cause an increase in the exchange rate relative to the currencies of other nations. This then has implications for inflation, unemployment, production, and other facets of the domestic economy. A balance of trade deficit is often the source of a balance of payments deficit, but other payments can turn a balance of trade deficit into a balance of payments surplus.

32.6 Review Questions

1. Discuss the balance of payments on current account.
2. Write a short note on the balance of payment crisis.

Answers: Self-Assessment

- | | | |
|------------|----------|-----------|
| 1. (i) (a) | (ii) (e) | (iii) (c) |
| (iv) (d) | (v) (c) | (vi) (e) |

32.7 Further Readings



1. Krimawati, Wawat. (?) NAFTA: North America Free Trade Agreement. [Accessed 18 May 2009]
2. Vogel, David. (2009) North American Free Trade Agreement. [Accessed 18 May 2009] 2009. North American Free Trade Agreement (NAFTA).
3. United States Department of Agriculture, Foreign Agricultural Service. [Accessed June 8, 2009]

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