International Economics
DEECO522

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Content

Unit 01: Introduction

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Objectives

- understand the importance of International Economics.
- know about International Trade and Nation's Standard of Living.
- Understand the current international economics problems.

Introduction

International economics is a field of study that assesses the implications of international trade, international investment, and international borrowing and lending. There are two broad subfields within the discipline: international trade and international finance. International trade is a field in economics that applies microeconomic models to help understand the international economy. Its content includes basic supply-and demand analysis of international markets; firm and consumer behavior; perfectly competitive, oligopolistic, and monopolistic market structures; and the effects of market distortions. The barter of goods or services among different peoples is an age-old practice, probably as old as human history. International trade, however, refers specifically to an exchange between members of other nations, and accounts and explanations of such trade begin (despite fragmentary earlier discussion) only with the rise of the modern nation-state at the close of the European Middle Ages. As political thinkers and philosophers began to examine the nature and function of the nation, trade with other countries became a particular topic of their inquiry. It is, accordingly, no surprise to find one of the earliest attempts to describe the function of international trade within that highly nationalistic body of thought now known as mercantilism.

1.1   International Economics

International economics uses the same fundamental methods of analysis as other branches of economics, because the motives and behavior of individuals are the same in international trade as

they are in domestic transactions. Gourmet food shops in Florida sell coffee beans from both Mexico and Hawaii; the sequence of events that brought those beans to the shop is not very different, and the imported beans traveled a much shorter distance! Yet international economics involves new and different concerns, because international trade and investment occur between independent nations. The United States and Mexico are sovereign states; Florida and Hawaii are not. Mexico's coffee shipments to Florida could be disrupted if the U.S. government imposed a quota that limits imports; Mexican coffee could suddenly become cheaper to U.S. buyers if the peso were to fall in value against the dollar. Neither of those events can happen in commerce within the United States because the Constitution forbids restraints on interstate trade and all U.S. states use the same currency.

The economics of the international economy can be divided into two broad subfields: the study of international trade and the study of international money. International trade analysis focuses primarily on the real transactions in the international economy, that is, on those transactions that involve a physical movement of goods or a tangible commitment of economic resources. International monetary analysis focuses on the monetary side of the international economy, that is, on financial transactions such as foreign purchases of U.S. dollars. An example of an international trade issue is the conflict between the United States and Europe over Europe's subsidized exports of agricultural products; an example of an international monetary issue is the dispute over whether the foreign exchange value of the dollar should be allowed to float freely or be stabilized by government action.

In the real world there is no simple dividing line between trade and monetary issues. Most international trade involves monetary transactions, while, as the examples in this chapter already suggest, many monetary events have important consequences for trade. Nonetheless, the distinction between international trade and international money is useful.

1.2   International Trade

International trade is the exchange of capital goods, 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 existed throughout history its economic, social, and political importance has been on the rise in recent centuries. Carrying out trade at an international level is a more complex process than domestic trade. Trade takes place between two or more nations.

Factors like the economy, government policies, markets, laws, judicial system, currency, etc. influence the trade. The political relations between two countries also influences the trade between them. Sometimes, the obstacles in the way of trading affect the mutual relationship adversly. To avoid this, international economic and trade organisations came up. To smoothen and justify the process of trade between countries of different economic standing, some international economic organisations were formed. These organisations work towards the facilitation and growth of international trade

Importance of International Trade

a.   Make maximum use of raw materials

Some countries have natural raw materials, such as oil (Qatar), metals (Iceland), fish (Iceland), Congo (diamonds) and butter (New Zealand). Without trade, these countries would not benefit from the natural contributions of raw materials.

Eli Hawker and Bertil Oll developed the theoretical model. Countries known as the Hecksher-Ohlin Model (H-O Model) say they will pay special attention to producing and exporting goods that use several local component settlements. Countries with limited resources will import.

b.   Comparative benefit

The principle of comparative achievement states that countries with special benefit costs must have particular expertise. Although a country can produce two goods at a low price, it should not make manufacturing). Therefore, exports of these services and goods will be efficient for India. Economies like the UK may benefit relatively from education and video game development. Trade allows countries to specialize. More details on how comparative gain can enhance financial well-being. The theory of relative gain has limitations, but it explains at least some aspects of international trade.

c. Great choice for users

The new commercial theory does not emphasize comparative advantage and relative input costs. In real business, the new business theory states that a driving force behind trade is giving consumers a choice of different products. We import BMW cars from Germany, not because they are affordable, but because of the quality and brand image. The business enables a wide selection of music and film to appeal to different tastes when it comes to music and film. When the Beatles toured the US in the 1960s, it was exporting British music – relative labor costs were not significant.

Probably the best example is things like clothing. Some textiles (eg, value-added garments from Primark) are very important and are likely to be imported from low-cost countries such as Bangladesh, however, we also import fashion labels from Gucci (Italy), where customers are charged lower prices. Are benefited. The argument is that international trade often fits the pattern of monopoly competition.

d. Specialization and Economy – More Efficiency

Another aspect of the new business theory is that no matter which countries are experts, the main thing is to advance expertise, which enables companies to benefit from an economy of scale that is influenced by other factors. Improves the Many times, countries may specialize in specific industries for no particular reason – this can be a historical risk. But that expertise provides better efficiency. Multinationals divide the manufacturing process into a global production system for high value-added products. For example, Apple designs its computers in the US but reduces production in Asian factories. Trade enables a product with multiple country sources. The manufacturing process is often global in car production, with engines, tires, design, and marketing coming from various countries.

e. Business in service sector

Import of physical goods, trade in bananas and export cars. However, the growth of the services sector economy means that more business is invisible –insurance, IT services and banking. In creating this website, I sometimes source our IT services for developers from other countries. This can be for small jobs up to $ 50. In addition, I can export a review guide for countries around the world on 49 7.49. A global economy with modern communications enables many micro-trades, which would not be possible in the pre-Internet era.

f. Global Development and Economic Development

International trade is an essential factor in promoting economic growth. This increase has led to a reduction in poverty – particularly in Southeast Asia, the highest growth rate since the 1980s.

1.3   Difference Between Inter-Regional and International Trade

Nevertheless, there are several reasons to believe the classical view that international trade is fundamentally different from inter-regional trade.

1. Factor Immobility. The classical economists advocated a separate theory of international trade on the ground that factors of production are freely mobile within each region as between places and occupations and immobile between countries entering into international trade. Thus, labour and capital are regarded as immobile between countries while they are perfectly mobile within a country. There is complete adjustment to wage differences and factor-price disparities within a country with quick and easy movement of labour and other factors from low return to high sectors. But no such movements are possible internationally. Price changes lead to movement of goods between countries rather than factors. The reasons for international immobility of labour are—difference in languages, customs, occupational skills, unwillingness to leave familiar surroundings, and family ties, the high travelling expenses to the foreign country, and restrictions imposed by the foreign coutnry on labour immigration. The international mobility of capital is restricted not by transport costs but by the difficulties of legal redress, political uncertainty, ignorance of the prospects of investment in a foreign country, imperfections of the banking system, instablity of foreign currencies, mistrust of the foreigners, etc. Thus, widespread legal and other restrictions exist in the movement of labour and capital between countries. But such problems do not arise in the case of inter-regional trade.

2. Differences in Natural Resources. Different countries are endowed with different types of natural resources. Hence, they tend to specialize in production of those commodities in which they

are richly endowed and trade them with others where such resources are scarce. In Australia, land is in abundance but labour and capital are relatively scarce. On the contrary, capital is relatively abundant and cheap in England while land is scarce and dear there. Thus, commodities requiring more capital, such as manufactures, can be produced in England; while such commodities as wool, mutton, wheat, etc. requiring more land can be produced in Australia. Thus both countries can trade each other's commodities on the basis of comparative cost differences in the production of different commodities.

3. Geographical and Climatic Differences. Every country cannot produce all the commodities due to geographical and climatic conditions, except at possibly prohibitive costs. For instance, Brazil has favorable climate geographical conditions for the production of coffee; Bangladesh for jute; Cuba for beet sugar; etc. So countries having climatic and geographical advantages specialize in the production of particular commodities and trade them with others.

4. Different Markets. International markets are separated by difference in languages, usages, habits, tastes, fashions etc. Even the systems of weights and measures and pattern and styles in machinery and equipment differ from country to country. For instance, British railway engines and freight cars are basically different from those in France or in the United States. Thus, goods which may be traded within regions may not be sold in other countries. That is why, in great many cases, products to be sold in foreign countries are especially designed to confirm to the national characteristics of that country. Similarly, in India right-hand drive cars are used whereas in Europe and America left-hand driven cars are used.

5. Mobility of Goods. There is also the difference in the mobility of goods between inter-regional and international markets. The mobility of goods within a country is restricted by only geographical distances and transportation costs. But there are many tariff and non-tariff barriers on the movement of goods between countries. Besides export and import duties, there are quotas, VES, exchange controls, export subsidies, dumping, etc. which restrict the mobility of goods at international plane.

6. Different Currencies. The principal difference between interregional and interantional trade lies in use of different currencies in foreign trade, but the same currency in domestic trade. Rupee is accepted throughout India from the North to the South and from the East to the West, but if we cross over to Nepal or Pakistan, we must convert our rupee into their rupee to buy goods and services there. It is not the differences in currencies alone that are important in international trade, but changes in their relative values. Every time a change occurs in the value of one currency in terms of another, a number of economic problems arise. "Calculation and execution of monetary exchange transactions incidental to international trading constitute costs and risks of a kind that are not ordinarily involved in domestic trade." Further, currencies of some countries like the American dollar, the British pound the Euro and Japanese yen, are more widely used in international transactions, while others are almost inconvertible. Such tendencies tend to create more economic problems at the international plane. Moreover, different countries follow different monetary and foreign exchange policies which affect the supply of exports or the demand for imports. "It is this difference in policies rather than the existence of different national currencies which distinguishes foreign trade from domestic trade," according to Kindle Berger.

*7. Problem of Balance of Payment*s. Another important point which distinguishes international trade from inter-regional trade is the problem of balance of payments. The problem of balance of payments is perpetual in international trade while regions within a Download more at Learnclax.com country have no such problem. This is because there is greater mobility of capital within regions than between countries. Further, the policies which a country chooses to correct its disequilibrium in the balance of payments may give rise to a number of other problems. If it adopts deflation or devaluation or restrictions on imports or the movement of currency, they create further problems. But such problems do not arise in the case of inter-regional trade.

8. Different Transport Costs. Trade between countries involves high transport costs as against inter-regionally within a country because of geographical distances between different countries.

9. Different Economic Environment. Countries differ in their economic environment which affects their trade relations. The legal framework, institutional set-up, monetary, fiscal and commercial policies, factor endowments, production techniques, nature of products, etc. differ between countries. But there is no much difference in the economic environment within a country.

10. Different Political Groups. A significant distinction between inter-regional and international trade is that all regions within a country belong to one political unit while different countries have

different political units. Inter-regional trade is among people belonging to the same country even though they may differ on the basis of castes, creeds, religions, tastes or customs. They have a sense of belonging to one nation and their loyalty to the region is secondary. The government is also interested more in the welfare of its nationals belonging to different regions. But in international trade there is no cohension among nations and every country trades with other countries in its own interests and often to the detriment of others. As remarked by Friedrich List, "Domestic trade is among us, international trade is between us and them."

11. Different National Policies. Another difference between interregional and international trade arises from the fact that policies relating to commerce, trade, taxation, etc. are the same within a country. But in international trade there are artificial barriers in the form of quotas, import duties, tariffs, exchange controls, etc. on the movement of goods and services from one country to another. Sometimes, restrictions are more subtle. They take the form of elaborate custom procedures, packing requirements, etc. Such restrictions are not found in inter-regional trade to impede the flow of goods between regions. Under these circumstances, the internal economic policies relating to taxation, commerce, money, incomes, etc. would be different from what they would be under a policy of free trade.

1.4 International Trade and the Nation's Standard of Living

If there is a point on which most economists agree, it is that trade among nations makes the world better off. Yet international trade can be one of the most contentious of political issues, both domestically and between governments. When a firm or an individual buys a good or a service produced more cheaply abroad, living standards in both countries increase. There are other reasons consumers and firms buy abroad that also make them better off—the product may better fit their needs than similar domestic offerings or it may not be available domestically. In any case, the foreign producer also benefits by making more sales than it could selling solely in its own market and by earning foreign exchange (currency) that can be used by itself or others in the country to purchase foreign-made products. Still, even if societies as a whole gain when countries trade, not every individual or company is better off. When a firm buys a foreign product because it is cheaper, it benefits—but the (more costly) domestic producer loses a sale. Usually, however, the buyer gains more than the domestic seller loses. Except in cases in which the costs of production do not include such social costs as pollution, the world is better off when countries import products that are produced more efficiently in other countries.

Those who perceive themselves to be affected adversely by foreign competition have long opposed international trade. Soon after economists such as Adam Smith and David Ricardo established the economic basis for free trade, British historian Thomas B. Macaulay was observing the practical problems governments face in deciding whether to embrace the concept: "Free trade, one of the greatest blessings which a government can confer on a people, is in almost every country unpopular."

1.5 Subject Matter of International Economics

International economics deals with the economic and financial interdependence among nations. It analyzes the flow of goods, services, payments, and monies between a nation and the rest of the world, the policies directed at regulating these flows, and their effect on the nation's welfare. This economic and financial interdependence is affected by, and in turn influences, the political, social, cultural, and military relations among nations.

Specifically, international economics deals with international trade theory, international trade policy, the balance of payments and foreign exchange markets, and open-economy macroeconomics. International trade theory analyzes the basis and the gains from trade. International trade policy examines the reasons for and the effects of trade restrictions. The balance of payments measures a nation's total receipts from and the total payments to the rest of the world, while foreign exchange markets are the institutional framework for the exchange of one national currency for others. Finally, open-economy macroeconomics deals with the mechanisms of adjustment in balance-of-payments disequilibria (deficits and surpluses). More importantly, it analyzes the relationship between the internal and the external sectors of the economy of a nation, and how they are interrelated or interdependent with the rest of the world economy under different international monetary systems.

International trade theory and policies are the microeconomic aspects of international economics because they deal with individual nations treated as single units and with the (relative) price of individual commodities. On the other hand, since the balance of payments deals with total receipts and payments, as well as with adjustment and other economic policies that affect the level of national income and the general price level of the nation as a whole, they represent the macroeconomic aspects of international economics. These are often referred to as open-economy macroeconomics or international finance.

International economic relations differ from interregional economic relations (i.e., the economic relations among different parts of the same nation), thus requiring somewhat different tools of analysis and justifying international economics as a distinct branch of economics. That is, nations usually impose some restrictions on the flow of goods, services, and factors across their borders, but not internally. In addition, international flows are to some extent hampered by differences in language, customs, and laws. Furthermore, international flows of goods, services, and resources give rise to payments and receipts in foreign currencies, which change in value over time.

International economics has enjoyed a long, continuous, and rich development over the past two centuries, with contributions from some of the world's most distinguished economists, from Adam Smith to David Ricardo, John Stuart Mill, Alfred Marshall, John Maynard Keynes, and Paul Samuelson. We will be examining the contribution made by each of these and other great economists in the following chapters. Other special branches of economics are of more recent vintage, and none can claim such a distinguished list of contributors and background.

1.6 Purpose of International Economic Theories and Policies

The purpose of economic theory in general is to predict and explain. That is, economic theory abstracts from the details surrounding an economic event in order to isolate the few variables and relationships deemed most important in predicting and explaining the event. Along these lines, international economic theory usually assumes a two-nation, two-commodity, and two-factor world. It further assumes no trade restrictions to begin with, perfect mobility of factors within the nations but no international mobility, perfect competition in all commodity and factor markets, and no transportation costs.

These assumptions may seem unduly restrictive. However, most of the conclusions reached on the basis of these simplifying assumptions hold even when they are relaxed to deal with a world of more than two nations, two commodities, and two factors, and with a world where there is some international mobility of factors, imperfect competition, transportation costs, and trade restrictions.

Starting with the simplifying assumptions just mentioned, international economic theory examines the basis for and the gains from trade, the reasons for and the effects of trade restrictions, policies directed at regulating the flows of international payments and receipts, and the effects of these policies on a nation's welfare and on the welfare of other nations. International economic theory also examines the effectiveness of macroeconomic policies under different types of international monetary arrangements or monetary systems.

Although most of international economics represents the application of general microeconomic and macroeconomic principles to the international context, many theoretical advances were made in the field of international economics itself, and only subsequently did they find their way into the body of general economic theory. One example is the so-called theory of the second best. Production and general equilibrium theory, growth theory, welfare economics, as well as many other economic theories, have also benefited from work in the international sphere. These contributions attest to the vitality and importance of international economics as a special branch of economics.

1.7 Current International Economic Problems

The beginning of 2007 offers a conflicting picture of the global economy for those trying to discern trends, challenges and opportunities. Concerns about energy security and climate sustainability are converging-finally bringing consensus in sight on the need for action in the United States, but prospects for breaking the global stalemate are still years away. While some developing countries are succeeding in bringing hundreds of millions out of poverty, too many are still mired in a doom spiral of conflict, poverty, and disease- despite the entry of new philanthropists, advocates and global corporations into the field of development. China's projected 9.6 percent growth rate is

sending ripples to the farthest reaches of the planet-creating opportunities but also significant risks. The United States remains in the "goldilocks" zone, but this is premised on continued borrowing from abroad at historically unprecedented rates while many Americans fret about widening inequality and narrowing opportunity. While the United States concentrates on civil war in the Middle East, most leaders in the region are preoccupied with putting an outsized cohort of young people to work and on the road to becoming productive citizens.

What are the most important challenges we face and what are the potential solutions? In Washington, D.C., where short-term political wrangling too often crowds out the harder and more important long-term challenges, this inaugural publication of Brookings Global Economy and Development seeks to put the spotlight squarely back on the most consequential issues demanding action. It seeks to size these issues, offering policymakers and leaders a concise and clear view of the critical challenges as viewed by leading experts in the field. From economic exclusion of youth in the Middle East to a pragmatic approach to energy and environmental security, this "top 10" is intended to mark core issues and shed light on opportunities and challenges with a broader and longer-term perspective.

1. *Energy and Environmental Security*

Energy and environmental security has emerged as the primary issue on the global agenda for 2007. Consensus has recently been forged on the potential for long-term economic, national security and societal damage from insecure energy supplies and environmental catastrophe, as well as the intense need for technological advances that can provide low-polluting and secure energy sources. Yet despite growing global momentum, there is still little agreement on the best set of actions required to reduce global dependency on fossil fuels and greenhouse gas emissions. Confounding the international policy challenge is the disproportionate impact of high oil prices and global warming across nations, insulating some countries from immediate concern while forcing others to press for more rapid change.

2. *Conflict and Poverty*

In a world where boundaries and borders have blurred, and where seemingly distant threats can metastasize into immediate problems, the fight against global poverty has become a fight for global security. American policymakers, who traditionally have viewed security threats as involving bullets and bombs, are increasingly focused on the link between poverty and conflict: the Pentagon's 2006 Quadrennial Defense Review focuses on fighting the "long war," declaring that the U.S. military has a humanitarian role in "alleviating suffering, ? [helping] prevent disorder from spiraling into wider conflict or crisis."

3. *Competing in a New Era of Globalization*

Is the new episode of globalization just another wave or a seismic shift? While individual elements feel familiar, the combined contours are unprecedented in scale, speed, and scope.

4. *Global Imbalances*

Today's interconnected world is in uncharted territory: the world's sole hegemonic power, the United States, nurses an addiction to foreign capital, while up-and-coming powers such as China and oil exporters sustain surpluses of increasing magnitudes. Some worry that the world is at a tipping point, where only a dramatic shift in economic policy can alter the looming trajectory. Others see underlying structural factors perpetuating gross imbalances for a sustained period.

5. Rise of New Powers

The rise of "emerging powers"-a group that usually includes the so-called BRICs (Brazil, Russia, India, and China), but which sometimes is applied more broadly to include South Africa, Mexico and others-is reshaping the global economy and, more gradually, international politics. Growing much faster than the rest of the world, these economies are changing the structure of international production and trade, the nature and direction of capital flows, and the patterns of natural resource consumption. At the same time, the growth of these countries is beginning to shift the global distribution of power forcing the great powers to come to terms with the reality that they will need to share management of international rules and systems in the coming decades.

6. *Economic Exclusion in the Middle East*

The Middle East has before it what could be one of the greatest demographic gifts in modern history-a potential economic windfall arising from a young and economically active workforce.

Today, young people aged 15- to 24- years old account for 22 percent of the region's total population, the highest regional average worldwide. With the right mix of policies, this demographic opportunity could be tapped to spur economic growth and promote stability.

7. Global Corporations, Global Impact

The private sector is becoming a significant player-indeed some might say the dominant player-in shaping the global economic and development agenda. Multinational corporations with operations that span the globe, and in some cases capacities and networks that match those of governments, have a particularly important role to play in helping to spread the opportunities and mitigating some of the risks of globalization.

8. Global Health Crises

From responding to the threat of pandemic flu to efforts to control the spread of HIV/AIDS, the world has begun to realize that global health issues are relevant for any citizen, regardless of nationality, residence or status. Despite improvements in the world's collective ability to battle disease with advances in medicine and technology, global health needs remain unmet, making the entire world vulnerable to health crises. In particular, the poor continue to suffer disproportionately from inadequate health services, exacerbating their struggle out of poverty.

9. Global Governance Stalemate

Today's global challenges-nuclear proliferation, the deadlock of global trade negotiations, the threat of pandemic flu, and the fight against global poverty-cannot be solved by yesterday's international institutions. To resolve the world's most pressing problems, which touch all corners of the globe, we must adapt our global governance approaches to be more representative and thus more effective by encouraging and enabling the key affected countries to take an active role in generating solutions.

10. Global Poverty: New Actors, New Approaches

The challenge of global poverty is more urgent than ever: over half the world's population-nearly 3 billion people-lives on less than $2 per day; nearly 30,000 children die each day-about 11 million per year -because they're too poor to survive. With such a toll, addressing poverty in new and more effective ways must be a priority for the global policy agenda. Fortunately, a variety of new actors are bringing new perspectives, new approaches and new energy to the challenge.

Summary

The world today is in the midst of a revolution based on the globalization of tastes, production, labor markets, and financial markets. Globalization is important because it increases efficiency; it is inevitable because international competition requires it. Globalization is being blamed for increased world income inequalities, child labor, environmental pollution, and other problems, and it has given rise to a strong anti-globalization movement. Interdependence in the world economy is reflected in the flow of goods, services, labor, and capital across national boundaries. The gravity model postulates that (other things equal), the bilateral trade between two countries is proportional or at least positively related to the product of the countries' GDPs. The greater the distance between the two countries, the smaller the GDPs. Starting with many simplifying assumptions, international economic theories examine the basis for and the gains from trade, the reasons for and the effects of trade restrictions, the policies directed at regulating the flow of international payments and receipts, and the effects of these policies on a nation's welfare. Thus, international economics deals with the pure theory of trade, the theory of commercial policy, the balance of payments and foreign exchange markets, and adjustment in the balance of payments or open-economy macroeconomics. The first two topics are the micro-economic aspects of international economics; the latter two are the macroeconomic aspects, also known as international finance.

Keywords

1. International Trade: the trade that takes place between buyer and seller of two different nations is called international trade.

2. Inter-Regional Trade: In addition to trade with other countries, trade also takes place among. the different regions and different states within the frontiers of a country.

3. Globalization: Globalization is a term used to describe how trade and technology have made the world into a more connected and interdependent place.

4. Balance of Payment: The balance of payments summarises the economic transactions of an economy with the rest of the world.

5. Foreign Exchange: The foreign exchange market is the market in which foreign currency—such as the yen or euro or pound—is traded for domestic currency—for example, the U.S. dollar.

Self Assessment

1. International trade contributes and increases the world _____

A. Population

B. Inflation

C. Economy

D. Trade Barriers

2. Free international trade maximizes world output through_____.

A. Countries reducing various taxes imposed.

B. Countries specializing in production of goods they are best suited for.

C. Perfect competition between countries and other special regions

D. The diluting the international business laws & conditions between countries.

3. Domestic company limits it's operations to _____ political boundaries.

A. International

B. National

C. Transnational

D. Global

4. Trade between two or more than two countries is known as _____.

A. Internal Business

B. External Trade

C. International Trade

D. Unilateral Trade

5. LDCs pay more for their imports from DCs than what they receive for their exports

A. True

B. False

6. Geographical and climatic conditions are same for internal and international trade.

A. True

B. False

7. An international trade increases consumption level of participating countries.

A. True

B. False

8. An international trade increases welfare of only exporting countries
   A. True
   B. False

9. Regional trade agreement is treaty signed by countries to____
   A. Encourage free movement of goods and services across borders
   B. Encourage free movement of goods and services within borders
   C. Discourage free movement of goods and services across borders
   D. None of the above

10. Trade is not possible if countries operate under____
    A. Absolute cost difference
    B. equal cost difference
    C. Comparative cost difference
    D. None of the above

11. Internal and international trade differs in terms of _____
    A. Geographical and climatic conditions
    B. Mobility of factors of production
    C. Factor endowment
    D. All of these

12. International trade _____
    A. Stimulates innovations,
    B. Reduces cost of production
    C. Diversifies consumption
    D. All the above

13. Participation in international trade is important as _____
    A. It acts as Engine of growth
    B. Vent for surplus
    C. Widens the market
    D. All of these

14. In case of composition of International trade_____ play major role.
    A. Manufactures
    B. Agricultural products
    C. Fuel and Mining
    D. None of these.

15. Internal and international trade differs in terms of _____
    A. Geographical and climatic conditions

B. Mobility of factors of production

C. Factor endowment

D. All of these

Answers for Self Assessment

l.	C	2.	B	3.	B	4.	C	5.	A
6.	B	7.	A	8.	B	9.	A	10.	B
11.	D	12.	D	13.	D	14.	A	15.	D

Review Questions

1. How is international trade related to the standard of living of the United States? of other large industrial nations? of small industrial nations? of developing nations? For which of these groups of nations is international trade most crucial?

2. What does international trade theory study? international trade policy? Why are they known as the microeconomic aspects of international economics?

3. What is the purpose of economic theory in general? of international economic theories and policies in particular?

4. Why does the study of international economics usually begin with the presentation of international trade theory? Why must we discuss theories before examining policies? Which aspects of international economics are more abstract? Which are more applied in nature?

5. If nations gain from international trade, why do you think most of them impose some restrictions on the free flow of international trade?

6. (a) How do international economic relations differ from interregional economic relations?
   (b) In what way are they similar?

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Unit 02: International Trade Theory

Objectives

- Understand the law of comparative advantage.
- Understand the relationship between opportunity cost and relative commodity prices.
- Explain the basis for trade and show the gains from trade under constant costs conditions.

Introduction

In this chapter, we examine the development of trade theory from the seventeenth century through the first part of the twentieth century. This historical approach is useful not because we are interested in the history of economic thought as such, but because it is a convenient way of introducing the concepts and theories of international trade from the simple to the more complex and realistic. The basic questions that we seek to answer in this chapter are:

1. What is the basis for trade and what are the gains from trade? Presumably (and as in the case of an individual), a nation will voluntarily engage in trade only if it benefits from trade. But how are gains from trade generated? How large are the gains and how are they divided among the trading nations?

2. What is the pattern of trade? That is, what commodities are traded and which commodities are exported and imported by each nation?.

We begin with a brief discussion of the economic doctrines known as mercantilism that prevailed during the seventeenth and eighteenth centuries. We then go on to discuss the theory of absolute advantage, developed by Adam Smith. It remained, however, for David Ricardo, writing some 40 years after Smith, to truly explain the pattern of and the gains from trade with his law of comparative advantage. The law of comparative advantage is one of the most important laws of economics, with applicability to nations as well as to individuals and useful for exposing many serious fallacies in apparently logical reasoning One difficulty remained. Ricardo had based his explanation of the law of comparative advantage on the labor theory of value, which was subsequently rejected. In the first part of the twentieth century, Gottfried Haberler came to

Ricardo's "rescue" by explaining the law of comparative advantage in terms of the opportunity cost theory, as reflected in production possibility frontiers, or transformation curves.

Mercantilist's View

From the sixteenth to the eighteenth centuries, world trade was based on the economic theory and practice of mercantilism, particularly in Western Europe, namely France, England, and Germany. It included elements such as belief in protectionism, nationalism, and the welfare of the nation. Furthermore, it included the planning and regulation of economic activities in order to achieve national goals, as well as the reduction of imports and promotion of exports. The trade revolution gave rise to a new economic concept known as 'Mercantilism.' According to this theory, agriculture practices have a very limited impact on a country's economic development because agriculture becomes unproductive after a certain period of time. However, economic development through the use of industries has no bounds. The mercantilists, primarily European countries, believed that a nation's power lies in its wealth, which grew by increasing gold and silver reserves. This was thought to be possible by establishing a favorable trade balance. This belief gained traction on the grounds that gold could be used to fund military expeditions and wars, and that exports would create jobs in the economy.

Adam Smith and Ricardo criticized mercantilism theory by emphasizing the importance of individuals and pointing out that their welfare was the welfare of the nation. They believed in liberalism and defined national wealth as "the sum of enjoyments" of individuals in society. Their trade doctrines were founded on the laissez faire principle and specialization in the production of goods for which resources were most suitable and easily available. The critics of mercantilism accepted any activity that would increase people's consumption. Mercantilists failed to recognize that export promotion and import substitution are not possible in all countries, and that mere possession of gold cannot improve people's well-being. Keeping resources in the form of gold reduces production of goods and services, lowering the welfare of citizens. The concentration of production of goods for domestic consumption through less efficient use of resources will result in less production and lower gains from international trade.

Case Study

Munn's Mercantilistic Views on Trade

Thomas Munn (1571–1641) was perhaps the most influential of the mercantilist writers, and his England's Treasure by Foreign Trade was the outstanding exposition of mercantilist thought on trade. Indeed, Adam Smith's attacks on mercantilist views on trade (see the next section) were directed primarily at Munn. Following is an excerpt from Munn's writing

Although a Kingdom may be enriched by gifts received, or by purchase taken from some other Nations, yet these are things uncertain and of small consideration when they happen. The ordinary means therefore to increase our wealth and treasure is by Foreign Trade, wherein we must ever observe this rule; to sell more to strangers yearly than we consume of theirs in value. For ... that part of our stock [exports] which is not returned to us in wares [imports] must necessarily be brought home in treasure [bullion]. . . . We may ... diminish our importations, if we would soberly refrain from excessive consumption of foreign wares in our diet and rayment [dress]. . . . In our exportations we must not only regard our superfluities, but also we must consider our neighbors necessities, that so ... we may ... gain so much of the manufacture as we can, and also endeavours to sell them dear, so far forth as the high price cause not a less vent in the quantity [of our exports]. But the superfluity of our commodities which strangers use, and may also have the same from other Nations, or may abate their vent by the use of some such like wares from other places, and with little inconvenience; we must in this case strive to sell as cheap as possible we can, rather than to lose the utterance [the sale] of such wares. . . .

2.1 Theory of Absolute Cost Advantage

Adam Smith, the father of economics, thought that the basis of international trade was absolute cost advantage. According to his theory, trade between two countries would be mutually beneficial if one country could produce one commodity at absolute advantage (over the other commodity) and the other countries could, in turn, produce another commodity at an absolute advantage over the first.

In other words , the principle of absolute advantage refers to the ability of a party (an individual, or firm, or country) to produce a greater quantity of a good, product, or service than competitors, using the same amount of resources. Adam Smith first described the principle of absolute advantage in the context of international trade, using labor as the only input. Since absolute advantage is determined by a simple comparison of labor productiveness, it is possible for a party to have no absolute advantage in anything; in that case, according to the theory of absolute advantage, no trade will occur with the other party. It can be contrasted with the concept of comparative advantage which refers to the ability to produce specific goods at a lower opportunity cost.

Origin of the theory

The main concept of absolute advantage is generally attributed to Adam Smith for his 1776 publication An Inquiry into the Nature and Causes of the Wealth of Nations in which he countered mercantilist ideas. Smith argued that it was impossible for all nations to become rich simultaneously by following mercantilism because the export of one nation is another nation's import and instead stated that all nations would gain simultaneously if they practiced free trade and specialized in accordance with their absolute advantage. Smith also stated that the wealth of nations depends upon the goods and services available to their citizens, rather than their gold reserves. While there are possible gains from trade with absolute advantage, the gains may not be mutually beneficial. Comparative advantage focuses on the range of possible mutually beneficial exchanges.

Assumptions of the Absolute Advantage Theory:

Trade between the two countries.

- He took into consideration a two-country and two-commodity framework for his analysis.
- There is no transportation cost.
- Smith assumed that the costs of the commodities were computed by the relative amounts of labor required in their respective production processes.
- He assumed that labor was mobile within a country but immobile between countries.
- He implicitly assumed that any trade between the two countries considered would take place if each of the two countries has an absolutely lower cost in the production of one of the commodities.

Table -1.Hours of work necessary to produce one unit

Country	Cloth	Wine
England	80	100
Portugal	120	90

Table-2. Hours of work commit after specialization

Country	Cloth	Wine
England	80 +100	0
Portugal	0	90+120

According to Table 1, England commits 80 hours of labour to produce one unit of cloth, which is fewer than Portugal's hours of work necessary to produce one unit of cloth. England is able to produce one unit of cloth with fewer hours of labour; therefore England has an absolute advantage in the production of cloth. On the other hand, Portugal commits 90 hours to produce one unit of wine, which are fewer than England's hours of work necessary to produce one unit of wine. Therefore, Portugal has an absolute advantage in the production of wine.

If the two countries specialize in producing the good for which they have the absolute advantage, and if they exchange part of the good with each other, both of the two countries can end up with more of each good than they would have in the absence of trade. In the absence of trade, each country produces one unit of cloth and one unit of wine. Here, if England commits all of its labour (80+100) for the production of cloth for which England has the absolute advantage, England produces (80+100)÷80=2.25 units of cloth. On the other hand, if Portugal commits all of its labour (90+120) for the production of wine, Portugal produces (90+120)÷90=2.33 Units of wine. By exchanging the 2.25 units of cloth and the 2.33 Units of wine, both of the two countries can end up with more of each good than they would have in the absence of trade.

Achieving an Absolute Advantage

An absolute advantage is achieved through low-cost production. In other words, an absolute advantage refers to an individual, company, or country that can produce at a lower marginal cost. An absolute advantage is established when (compared to competitors):

- Fewer materials are used to produce a product
- Cheaper materials (thus a lower cost) are used to produce a product
- Fewer hours are needed to produce a product
- Cheaper workers are (in terms of hourly wage) used to produce a product

Criticisms:

Adam Smith, theory has certain weaknesses.

Firstly, this theory assumes that each exporting country has an absolute cast advantage in the production of a specific commodity. This assumption may not hold true, when a country has no specific line of production in which it has an absolute superiority. In this context Ellsworth says "Smith's argument is not very convincing as it assumed without argument that international trade required a producer of exports to have an absolute advantage, that is, an exporting country must be able to produce with a given amount of capital and labour a larger output than any rival. But what if a country has no line of production in which it was clearly superior." Most of the backward countries with inefficient labour and machinery may not be enjoying absolute advantage in any line of activity. So the principle of absolute cost advantage cannot provide complete and satisfactory explanation of the basis on which trade proceeds among the different countries.

Secondly, Adam Smith simply indicated the fundamental basis on which international trade rests. The absolute cost advantage had failed to explore in any comprehensive manner the factors influencing trade between two or more countries.

Thirdly, the 'Vent for Surplus' doctrine of Adam Smith is not completely satisfactory. This doctrine can have serious adverse repercussions on the growth process of the backward countries. These countries do not sell their surplus produce in foreign markets but are constrained to export despite domestic shortages for the reasons of neutralising their balance of payments deficit.

2.2   Trade Based on Comparative Advantage: David Ricardo

In 1817, Ricardo published his Principles of Political Economy and Taxation, in which he presented the law of comparative advantage. This is one of the most important and still unchallenged laws of economics, with many practical applications. In this section, we will first define the law of comparative advantage; then we will restate it with a simple numerical example; finally, we will prove it by demonstrating that both nations can indeed gain by each specializing in the production and exportation of the commodity of its comparative advantage.

The Law of Comparative Advantage

According to David Ricardo, it is not only the absolute but the comparative differences in costs that determine trade relations between two countries. Production costs differ in countries because of geographical division of labor and specialization in production. Due to differences in climate, natural resources, geographical situation and efficiency of labour, a country can produce one commodity at a lower cost than the other because of these comparative advantages. In this way, each country specializes in the production of that commodity in which its comparative cost of

production is the least. Therefore, when a country enters into trade with some other country, it will export those commodities in which its comparative production costs are less, and will import those commodities in which its comparative production costs are high. According to Ricardo, this is the basis of international trade. It follows that each country will specialize in the production of those commodities in which it has the greatest comparative advantage or the least comparative disadvantage. Thus, a country will export those commodities in which its comparative advantage is the greatest and import those commodities in which its comparative disadvantage is the least.

Assumptions

The Ricardian theory of comparative advantage is based on the following assumptions:

1. There are only two countries, say England and Portugal.

2. They produce the same two commodities say, wine and cloth.

3. There are similar tastes in both countries.

4. Labour is the only factor of production.

5. The supply of labour is unchanged.

6. All units of labour are homogeneous.

7. Prices of two commodities are determined by labour cost, i.e, the number of labour units employed to produce each.

8. Commodities are produced under the law of constant costs or returns.

9. Technological knowledge is unchanged.

10. Trade between the two countries takes place on the basis of the barter system.

11. Factors of production are perfectly mobile within each country, but are perfectly immobile between countries.

12. There is free trade between the two countries, there being no trade barriers or restrictions in the movement of commodities.

13. No transport costs are involved in carrying trade between the two countries.

14. All factors of production are fully employed in both the countries.

15. The international market is perfect so that the exchange ratio for the two commodities is the same.

Explanation of the Theory

Given these assumptions, Ricardo shows that trade is possible between two countries even when one country has an absolute advantage in the production of both commodities, but the country has a comparative advantage in the production of one commodity than in the other. This is illustrated in terms of Ricardo's well-known example of trade between England and Portugal as shown in table 3

Table 3: Labour Required For Producing One Unit

Country	Cloth	Wine
England	120	100
Portugal	80	90

The table 3shows the production of a unit of wine in England requires 120 men for a year, while a unit of cloth requires 100 men for the same period. On the other hand, the production of the same quantities of wine and cloth in Portugal requires 80 and 90 men respectively. Thus, England uses more labour than Portugal in producing both wine and cloth. In other words, the Portuguese labour is more efficient than the English labour in producing both the products. So, Portugal possesses an absolute advantage in both wine and cloth. But Portugal would benefit more by producing wine and exporting it to England because it possesses greater comparative advantage in

it. This is because the cost of production of wine (80/120 men) is less than the cost of production of cloth (90/100 men). On the other hand, it is in England's interest to specialize in the production of cloth in which it has the least comparative disadvantage. This is because the cost of production of cloth in England in less (100/90 men) as compared with wine (120/80 men). Thus, trade is beneficial for both the countries. The comparative advantage position of both is illustrated in fig. 1 in terms of production possibility curves.
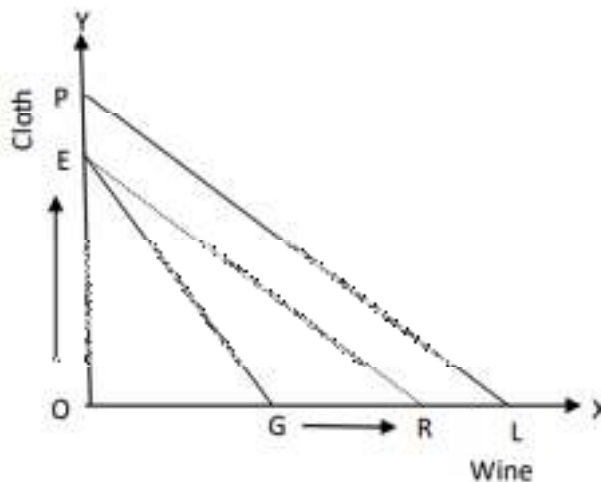

Fig. 1

PL is the production possibility curve of Portugal, and EG that of England. Portugal enjoys an absolute advantage in the production of both wine and cloth over England. It produces OL of wine and OP of cloth, as against OG of wine and OE of cloth produced by England. But the slope of ER (parallel to PL) reveals that Portugal has a greater comparative advantage in the production of wine because if it gives up the resources required to produce OE of cloth, it can produce OR of wine which is greater than OG of wine of England. On other hand England had the least comparative disadvantage in the production of OE of cloth. Thus, Portugal will export OR of wine to England in exchange for OE of cloth from her.

Gains from Trade and their Distribution

Ricardo does not discuss the actual ratio at which wine and cloth would exchange and how much the two countries gain from trade. Before trade, the domestic trade ratios in the two countries for wine and cloth are shown in Table 4. The cost of production of one unit of wine in England is 120 men and that of producing one unit of cloth is 100 men. It shows that the cost of producing wine is more as against cloth because one unit of wine can exchange for 1.2 units of cloth. On the other hand, the cost of producing one unit of wine in Portugal is 80 men and that of producing one unit of cloth is 90 men. It is clear that the cost of producing cloth is more than that of wine because one unit of wine can exchange for 0.89 unit of cloth. Suppose trade begins between the two countries. England will gain if it imports one unit of wine from Portugal in exchange for less than 1.2 units of cloth. Portugal will also gain if it imports more than 0.89 units of cloth from England in exchange for 1 unit of wine.

Table 4: Domestic Exchange Ratios

England	Portugal
Wine 120: 100 Cloth (6/5) 1: 1.2 Cloth 100: 120 Wine(5/6) 1: 0.83	Wine 80 : 90 Cloth (8/9) 1: 0. 89 Cloth 90: 80 Wine (9/8) 1: 1.125

The table shows that the domestic exchange ratio in England is one unit of cloth= 0.83 units of wine, and in Portugal one unit of wine= 0.89 unit of cloth. If we assume the exchange ratio between the two countries to be 1 unit of cloth = 1 unit of wine, England would gain 0.17 (1-0.83) unit of wine by

exporting one unit of cloth to Portugal. Similarly, the gain to Portugal by exporting one unit of wine to England will be 0.11(1- 0.89) unit of cloth. Thus, trade is beneficial for both countries.

The gains from trade and their distribution are shown in Figure 2 where the line C1 W2 depicts the domestic exchange ratio 1 unit of cloth= 0.83 unit of wine of England, and the line W1 C2 that of Portugal at the domestic exchange ratio 1 unit of wine= 0.89 unit of cloth. The line C1 W1 shows the exchange rate of trade of 1 unit of cloth=1 unit of wine between the two countries. At this exchange rate England gains W2W1 (0.17 unit) of wine, while Portugal gains C2 C1 (0.11 unit) of cloth.
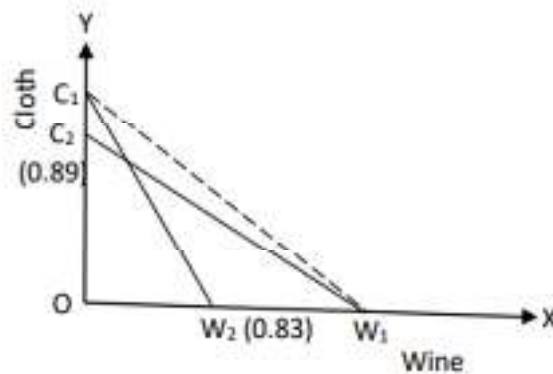

Fig. 2

Thus, both England and Portugal specialise in the production of one commodity on the basis of comparative costs. Each reallocates its factors accordingly and exports that commodity in which it has comparative advantage and imports that commodity in which it has a comparative disadvantage. Both gain through trade and can increase the consumption of the two commodities.

Criticisms

The principle of comparative advantage has been the basis of international trade for over a century till the First World War. Since then the critics have been able only to modify and amplify the theory. In particular, it has been several times criticised by Bertin Ohlin and Frank D. Graham.

We discuss here some of the important criticisms given below:

1. Unrealistic Assumption of Labour Cost: The most severe criticism of the comparative advantage doctrine is that it is based on the labour theory of value. In calculating production costs, it takes only labour costs and neglects non-labour costs involved in the production of commodities. This is highly unrealistic because it is money costs and not labour costs that are the basis of national and international transactions of goods. Further, the labour cost theory is based on the assumption of homogeneous labour. This is again unrealistic because labour is heterogeneous of different kinds and grades, some specific or specialized, and other non-specific or general.

2. No Similar Tastes: The assumption of similar tastes is unrealistic because tastes differ with different income brackets in a country. Moreover, they also change with the growth on an economy and with the development of its trade relations with other countries.

3. Assumption of Fixed Proportions: The theory of comparative costs is based on the assumption that labour is used in the same fixed proportions in the production of all commodities. This is essentially a static analysis and hence unrealistic. As a matter of fact, labour is used in varying proportions in the production of commodities. For instance, less labour is used per unit of capital in the production of textiles. Moreover, some substitution of labour for capital is always possible in production.

4. Unrealistic Assumption of Constant Costs: The theory is based on another weak assumption that an increase of output due to international specialisations if followed by constant costs. If the large-scale of production reduces costs, the comparative advantage will be increased. On the other hand, if increased output is the result of increased cost of production, the comparative advantage will be reduced, and in some cases it may even disappear.

5. Ignores Transport Costs: Ricardo ignores transport costs in determining comparative advantage in trade. This is highly unrealistic because transport costs play an important role in determining the pattern of world trade. Like economies of scale, it is an independent factor of production. For

instance, high transport costs may nullify the comparative advantage and the gain from international trade.

6. Mobility of Factor: The doctrine assumes that factors of production are perfectly mobile internally and wholly immobile internationally. This is not realistic because even within a country factor do not move freely from one industry to another or from one region to another. The greater the degree of specialisation in an industry, the less is the factor mobility from one industry to another. Thus, factor mobility influences costs and hence the pattern of international trade.

7. Two-Country two- Commodity Model: The Ricardian model is related to trade between two countries on the basis of two commodities. This is again unrealistic because in actuality, international trade is among many countries trading in many commodities.

8. Unrealistic Assumption of Free Trade: Another serious weakness of the doctrine is that it assumes perfect and free world trade. But in reality, world trade is not free. Every country applies restrictions on the free movement of goods to and from other countries. Thus, tariffs and other trade restrictions affect world imports and exports. Moreover, products are not homogeneous but differentiated. By neglecting these aspects, the Ricardian theory becomes unrealistic.

9. Unrealistic Assumptions of Full Employment: Like all classical theories, the theory of comparative advantage is based on the assumption of full employment. This assumption also makes the theory static. Keynes falsified the assumption of full employment and proved the existence of under-employment in an economy. Thus, the assumption of full employment makes the theory unrealistic.

10. Self-Interest Hinders its Operation: The doctrine does not operate if a country having a comparative disadvantage does not wish to import a commodity from the other country due to strategic, military or development considerations. Thus, often self-interest stands in the operation of the theory of comparative costs.

2.3 Haberler's Theory of Opportunity Cost

Ricardo's theory of comparative cost advantage was criticized because it was based on the labour theory of value. According to the labour theory of value, the value of a good is equal to the amount of labour time involved in its production. Ricardo discovered that labour was the only factor of production, that it was homogeneous, and that it was used in fixed proportions in the production of all commodities. Although all of these assumptions were found to be unrealistic because there are other factors of production besides labour, labour cannot be used in uniform proportions, and labour can be substituted with capital in countries where capital is cheaply available. Because of these flaws, Haberler developed his theory of Opportunity Cost. According to the theory, if a country produces either A or B commodity, the opportunity cost of commodity A is the amount of commodity B sacrificed in order to obtain an additional unit of commodity A. Nonetheless, the exchange ratio of the two goods is expressed in terms of opportunity cost. Along with the production possibility curve, the concept has been used in international trade theory. Haberler's theory is based on the following assumptions:

There are only two trading countries, each of which has two factors of production, namely labour and capital;

- Each country produces two goods;
- There is perfect competition in the factor and goods markets;
- There is full employment in both countries, factors are immobile between the
- two countries but completely mobile within the country;
- Trade between the countries was assumed to be free; and
- The supply of goods was assumed to be unlimited.

According to the theory, a production possibility curve (PPC) depicts various alternative combinations of the two commodities that a country can produce more efficiently by utilizing both factors of production and the technology at hand. The slope of PPC calculates the amount of one good that a country must give up in order to obtain an additional unit of another good. The slope of PPC, on the other hand, explains the marginal rate of transformation (MRT). Haberler's theory was thought to be superior to the comparative costs theory of international trade. Its superiority stems from an examination of pre-trade and post-trade conditions under constant, increasing, and

decreasing opportunity costs, whereas comparative cost theory was founded on constant production costs within a country and comparative advantage and disadvantage

between the two countries. Despite its contributions to international trade, Jacob Viner has criticized the theory of opportunity cost on the following grounds:

- The opportunity costs approach was found to be inferior as a tool of welfare evaluation to the classical real cost approach, as the theory fails to measure real costs in the form of sacrifices made in providing productive services.

- Viner also criticized the PPC for failing to take into account changes in factor supply, and the assumptions of two countries, two commodities, two factors, and perfect competition were also found to be unrealistic.

2.4 Heckscher-Ohlin Theory

The writings of Smith, Ricardo and other classical economists, as it is clear from the foregone discussion, had established that the basis of international trade is the law of comparative advantage, But what causes the comparative advantage between the two nations? To this question, their answer was that the comparative advantage was based on the difference in the productivity of labour among nations; They however did not provide explanation for difference in labour productivity except for possible difference in climate. The Standard Theory of International Trade or the Heckscher Ohlin (H-0) theory went much beyond to examine the basis for comparative advantage. According to the Heckscher-Ohlin theory, which is-also known as factor endowment theory, a nation Will export the commodity intensive in its relatively abundant and cheap factor of production and import the commodity intensive in its relatively scarce and expensive factor. Out of all the possible forces that could cause a difference in pre-trade relative commodity prices between nations, Heckscher and Ohlin isolated the difference in factor endowments (in the face of equal technology and tastes) as the basic determinant or cause of comparative advantage. The general equilibrium nature of the H-0 theory arises from the fact that all commodity and factor markets are component of an overall unified system so that a change in any part affected every other part. Another point established by H-O theory is that international trade can also be a substitute for the international mobility of factors in equalizing relative and absolute returns to homogeneous factors across nations.

Heckscher-Ohlin trade theory was another name for the Heckscher-Ohlin trade model. Heckscher published a paper in 1919 in which this theory was presented, but Ohlin published a book in 1933 in which this model was presented. Furthermore, Ohlin was awarded a Noble Prize for his theory in 1977. This model is also known as the H.O Model. The model is 2x2x2 because it consists of two goods, two production factors, and two countries. Capital and labour are the two factors. Ricardo failed to explain how comparative advantage is determined. According to this theory, a country will export commodities with abundant factors and import commodities with scarce factors. However, in Adam Smith and Ricardo's trade models, labour was the only factor input, and the differences in the trade is determined by labour productivity. They pointed out that different countries have different factor endowments, and that the differences in factor endowments facilitate trade between trading partners. The theory is based on the assumption that there are trade barriers and that goods and factor markets are perfectly competitive. Furthermore, the theory is predicated on comparative advantage in terms of relative factor prices. As a result, if a country has a large amount of capital, it will produce capital-intensive products and export them in exchange for labor-intensive products. While another country, which is rich in labour, will produce and export labor intensive goods. Despite this, it will import capital-intensive goods. The term "abundance" has two meanings in this theory: it refers to the price of the factor and it refers to the physical quantity of the factor. If there are two countries, A and B, then the prosperity of the country in terms of factor prices means that the price of the factors of production is relatively lower.

Unlike the classical trade model, H.O. trade theory cannot guarantee the desired income distribution among the country's various classes. Because of the greater demand for producing respective goods for the global market, returns to capital are higher in country A and returns to labour are higher in country B. The traditional trade models were predicated on certain assumptions, such as no transportation costs and the free flow of information to all producers and consumers. They do not account for the effects of trade on global prices. These trade theories are static and ignore the effects of technological progress on global economic growth. These are real

concerns that must be addressed in a customized description of classical and neoclassical theories. If a country has a monopoly on a particular good, it can have an impact on global prices. It can either supplement its gains through "optimal tariffs," which seek to maximize the welfare of the country. Trade has the potential to complicate the growth process. It can have an impact on employment and even the overall well-being of the country. This is possible in the case of exponential growth (when benefits from the higher output are neutralized by the adverse terms of trade). The country ends up with lower real income after growth because the benefits of higher output are washed out by deteriorating trade terms. However, it should be noted that the adapted version of the basic theory does not change the assumption that a country produces and exports the product in which it has a comparative advantage, and uses the abundant factor in the production. The country benefits from trade, but the distribution of gains can be distorted. Change in trade is not free, but the short-term cost of adjustment should be balanced against the long-term benefits of trade.

The theory was criticized on the following grounds: the assumption of 2x2x2 model was found to be unrealistic; unlike classical theory, this theory was also static in nature; the theory was based on the assumption of homogenous factors which was calculated with the help of factor endowment; the techniques of production cannot also be homogenous even for the same good in the two countries as assumed in H.O. model; the theory is based on another assumption of similar taste. The theory was based on the assumption of constant returns to scale, which is also not true because a country with a rich factor endowment frequently obtains the benefits of economies of scale through a smaller amount of production and exports, implying that there should be increasing returns to scale; the theory does not take into account transport costs in trade between trading countries; the impractical supposition of full employment and perfect competition; the Leontief paradox has been proven

2.5   Stopler - Samulson Theorem

Wolfgang Stolper and Paul Samuelson proved that trade does split a country into clear gainers and clear losers under certain assumptions: such as, a country produces two goods (for example, wheat and cloth) with two factors of production (for example, land and labour); neither good is an input into the production of the other; competition prevails; factor supplies are given; both factors are fully employed; one good (wheat) is land-intensive and the other (cloth) is labour–intensive with or without trade; both factors are mobile between sectors (but not between countries); and opening trade raises the relative price of wheat.

The Stolper-Samuelson theorem: under the assumptions just stated, moving from no trade to free trade unambiguously raises the returns to the factor used intensively in the rising-price industry (land) and lowers the returns to the factor used intensively in the falling price industry (labour), regardless of which goods the sellers of the two factors prefer to consume.

When tariff is imposed, the domestic producers increase the production of imported goods due to rise in their prices and decrease that of exported goods. This change in the production pattern will affect the relative prices of the factors of production. The redistributive effect is explained here with the help of Stolper-Samuelson Theorem.

The Stolper-Samuelson Theorem states that when the relative price of a commodity rises, say due to tariff, it raises the return on the factor which is being extensively used in the production of that commodity. Therefore, the real return on the country's scarce factor production will rise with the imposition of tariff.

 In our example, country 'B' being a capital abundant nation imposes an import tariff on commodity 'X' which is a labour-intensive commodity and Y is a capital-intensive commodity. Thus, PX/Py rises for both domestic consumers and producers. So, the real wage of labour (i.e., the scarce resource of country 'B') will rise. This is explained now.

After imposition of import tariff on commodity 'X', the country starts producing more of commodity 'X', and less of commodity 'Y'. Thus, the country moves from point 'D' to point 'F' in Fig. 2.1. This movement to point 'F' is the result of increase in capital–labour ratio in the production of both the commodities which further results in increase in the price of the country's scarce factor, labour.

To illustrate it, consider the following Fig.2.1, which makes use of the Edgeworth box diagram for country 'B'. The curve OXOY is the usual contract curve and isoquants are assumed to be linearly homogenous in this country.

In this figure, point 'C' depicts the autarky situation and point 'D' is the free trade production point on the contract curve. Point 'F' is the new production point when country 'B' imposes 100 percent ad valorem tariff on importable commodity 'X'. Observe from the figure that point 'F' is further away from the origin 'Ox and closer to the origin 'OY' than point 'D' implying post-trade capital-labour ratio. The slope of the line from the origin 'Ox to point 'F' measures the capital–labour ratio in the production of commodity 'X'. Again, the slope of the line from the origin 'Oy to point 'D' measures the capital–labour ratio in the production of commodity 'Y'.

This shows that with the rise in the price (PX/PY) as a result of import tariff on commodity 'X', country 'B' reduces more of commodity 'X' and less of commodity 'Y'.

Fig 2.1
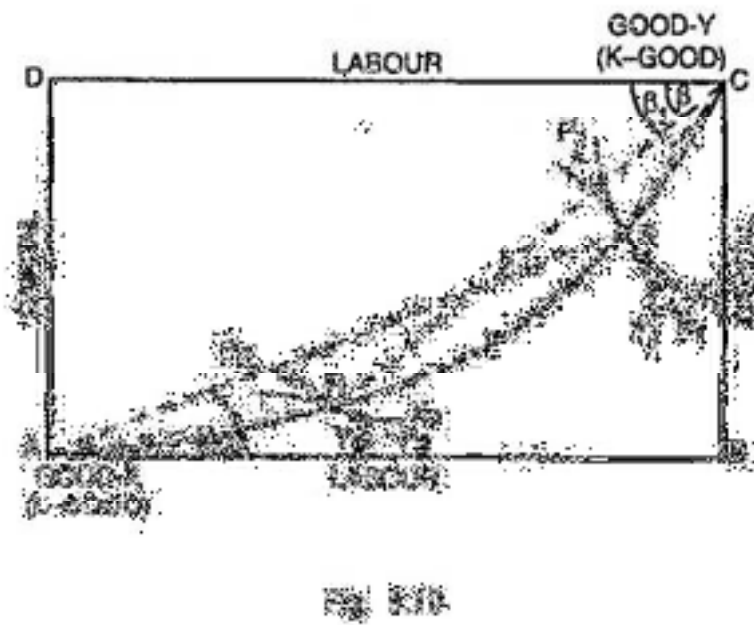
The slope of the line from the origin 'Ox to point 'D' measures the capital–labour ratio in the production of commodity 'X' implying pre trade capital-labour ratio. Further, the slope of the line from the origin OY to point 'D' measures the capital–labour ratio in the production of commodity 'Y' under free trade. After imposition of import tariff, the country 'B' produces at point 'F'.

The capital–labour ratio in the production of commodity 'X' and commodity 'Y' are measured by the slope of the dotted lines from the origins Ox and OY respectively to point 'F'. As it can be seen in the diagram, dotted lines from the origin are steeper than the solid lines OXD and OYD. This indicates use of higher capital-labour ratio in the production of both the commodities after imposition of import tariff than under the free trade.

When the tariff is imposed by country 'B' on commodity 'X', i.e., the labour intensive commodity, each unit of labour is combined with more units of capital in the production of both the commodities. As a result, the productivity of labour increases. Consequently, not only the money wage but also the real wage rises in country 'B'. With labour fully employed before and after imposition of the tariff, the total earnings of labour and its share in national income will be greater. Thus, incomes get redistributed in favour of labour. It may thus, be concluded that tariff favours a factor which is used intensively after tariff implosion. In this Fig., since national income is reduced by the tariff, i.e., from point 'E' to point 'H' and the share of total income going to 'L' is higher, the rate of interest and total earnings of 'K' fall in country 'B'. Therefore, while a small nation as a whole is harmed by the tariff, its scarce factor benefits at the expense of its abundant factor.

2.6   Leontief Paradox – Failure of Heckscher – Ohlin Theory

The first empirical test of the Heckscher – Ohlin (H-O) model was conducted by the Wassily Leontief in 1951 using U.S. data for the year 1947. For this test Leontief used input-output table (The

input-output table is a table showing the origin and destination of each product in the economy. In fact Leontief himself had contributed importantly to the development of this new technique of analysis and received Nobel prize for his contributions) of the U.S. economy to calculate the amount of capital and labour in the U.S. economy10. Leontief expected to find that U.S. exported capital intensive commodities and imported labour intensive commodities since U.S. was the most capital abundant nation in the world. According to Heckscher – Ohlin theory, a capital abundant nation exports capital intensive commodity and imports labour intensive commodities and vice versa. Since the United States was the capital abundant nation and import substitutes were 30 per cent more capital intensive than the United States exports, this result was the opposite of what the Heckscher – Ohlin theory predicted, and it became known as the Leontief paradox.

In the same study, Leontief rationalise his results rather than rejecting H-O theory. Leontief argued that since in 1947 labour was about three times as productive as foreign labour, the United States was really a labour abundant nation if we multiplied the U.S. labour force by three as against the availability of capital in the U.S. economy. The explanation of the Leontief regarding labour intensiveness was not acceptable because though labour in the U.S. was three times as productive as foreign labour so was the U.S. capital. Similarly, Leontief argued that the U.S. tastes were biased towards capital intensive commodity as a result demand for capital 18 increased the relative prices of capital intensive commodities in the United States. Therefore, Unites States would export labour intensive commodities. This explanation was also not acceptable because tastes are known to be similar across nations.

Another possible reason for Leontief's paradox is factor-intensity reversal. Factor intensity reversal refers to the situation where the same (given) commodity is labour intensive in labour abundant nation and capital intensive in capital abundant nation. For example, factor intensity reversal is present if commodity X is labour intensive in India (low wage nation) and at the same time the same commodity X is capital intensive in the United States (high wage nation). In this case labour abundant nation India would export commodity X and capital abundant nation the United States would export the same commodity X. Since the two nations viz; India and the United States cannot possibly export the same homogeneous commodity to each other, the Heckscher-Ohlin theory fails because it (H-O theory) says that labour abundant nation should export labour intensive commodity and capital abundant nation should export capital intensive commodity. Student must note here that to determine factor intensity the concept of elasticity of substitution is used. For example, factor intensity reversal may occur when the possibility of factor substitution is much greater in the production of one commodity (say wheat) than in the production of other commodity (say cloth). This means that if the elasticity of substitution of labour for capital in the production of wheat in India (labour abundant nation) is much greater than in the production of commodity cloth in India. This shows that wheat is labour intensive commodity in India. Similarly if the elasticity of substitution of labour for capital is much lower in the production of wheat in the United States than in the production of cloth in the United States, this shows that the same commodity wheat which is labour intensive in India is capital intensive in the United States because elasticity of substitution of capital for labour is much greater in the production of wheat in the United States.

Summary

Trade theories explain the pattern of trade between two countries, the pattern of specialisation and the mutual benefit of the trade. There are various trade theories to explain above phenomenon. Ricardian theory states that a country has comparative advantage in the good in which its relative labour productivity is higher than its trading partner and tends to export this good. The country trends to import the good in which its trading partner has comparative advantage. Heckscher-Ohlin-Sarnuelson theorem emphasises that a country which is relatively abundant in labour will have comparative advantage in the labour intensive good and thk relatively capital abundant country will have comparative advantage in the capital intensive good. This theory advocates that it is the factor abundance rather than the technology which determines the pattern of trade. The modem theories of trade assumes monopolistic or oligopolistic market structure and economy of scale in production.

Keywords

- Absolute Advantage: Greater advantage or efficiency in the production of goods enjoyed by one country over another country. This is the basis of trade according to Adam Smith.
- Comparative Advantage: It states that trade would still be gainful even if one country is less efficient than the other, but specializes in the production of commodities or goods where its disadvantages are relatively lower (comparative advantage) and exports the same.
- Production Possibility Curve (PPC) : It shows the various possibilities of production of two goods in a country, given the factor endowments and technology.
- H.O. Trade Theory : Postulation that countries specialize in the production and export of those goods which require their abundant or cheap factors. A capital rich country exports capital intensive goods and imports labour intensive goods.
- Mercantilism: Mercantilism is an economic practice by which governments used their economies to augment state power at the expense of other countries. Governments sought to ensure that exports exceeded imports and to accumulate wealth in the form of bullion (mostly gold and silver).

Self Assessment

1. According to Ricardo, international trade is useful under _____
A. Absolute cost,
B. comparative cost,
C. equal difference in cost,
D. Zero cost.

2. Ricardian theory assumes perfect mobility of labour_____
A. Within the country,
B. between the countries,
C. both within and between the countries,
D. none of these.

3. Heckscher-Ohlin theory is about _____
A. inter-regional trade,
B. international trade,
C. domestic trade,
D. a and b both

4. According to Heckscher-Ohlin theory, product price depends on _____
A. Factor intensity,
B. factor abundance,
C. factor cost,
D. all of these.

5. A reciprocal demand is _____

A. Mutual demand of two countries to each other's good

B. Mutual supply

C. Price of export and import

D. Derived demand

1. Labour is the only factor of production according to the _____ theory of international trade.

A. Classical theory

B. Modern theory

C. None of these

D. All of these

2. Heckscher – Ohlin theory of International trade assumes _____ (Countries* Commodities* factors of production)

A. 2*2*2

B. 2*2*1

C. 2*3*2

D. 3*2*2

3. In case of Heckscher – Ohlin theory of international trade, Factor abundance in physical terms refers to _____

A. TK1/TL1 >TK2/TL2

B. PK1/PL1< PK2/PL2

C. None of these

D. All of these

9. _____is the oldest International Trade theory.

A. Country Similarity Theory

B. Theory of Absolute Cost advantage

C. Product Life Cycle Theory

D. Mercantilism Theory

10. Theory of comparative advantage was presented by:

A. Adam Smith

B. Ricardo

C. Hicks

D. Arshad

11. Modern theory of international trade is based n the views of:

A. Robbins and Ricardo

B. Adam Smith and Marshall

C. Heckcsher and Ohlin

D. Saleem and Kareem

12. Hecksher-ohlin theorem states that a capital rich country

A. Exports Capital intensive goods

B. imports capital intensive goods

C. exports labour intensive goods

D. imports labour intensive goods

13. According to Ricardo, international trade is useful under _____

A. Absolute cost

B. comparative cost,

C. equal difference in cost,

D. Zero cost.

14. Ricardian theory assumes perfect mobility of labour_____

A. Within the country,

B. between the countries,

C. both within and between the countries,

D. none of these.

15. According to Heckscher-Ohlin theory, product price depends on _____

A. Factor intensity,

B. factor abundance,

C. factor cost,

D. all of these.

Answers for Self Assessment

l.	B	2.	A	3.	D	4.	D	5.	A
6.	A	7.	B	8.	A	9.	D	10.	B
11.	C	12.	A	13.	B	14.	A	15.	D

Review Questions

1. What was the basis for and the pattern of trade according to Adam Smith? How were gains from trade generated? What policies did Smith advocate in international trade? What did he think was the proper function of government in the economic life of the nation?

2. In what way was Ricardo's law of comparative advantage superior to Smith's theory of absolute advantage? How do gains from trade arise with comparative advantage? How can a nation that is less efficient than another nation in the production of all commodities export anything to the second nation?

3. What is the relationship between opportunity costs and the production possibility frontier of a nation? How does the production possibility frontier look under constant opportunity costs?

What is the relationship between the opportunity cost of a commodity and the relative price of that commodity? How can they be visualized graphically?

4. Why is a nation's production possibility frontier the same as its consumption frontier in the absence of trade? How does the nation decide how much of each commodity to consume in the absence of trade?

5. "In the neoclassical model free & Ade not only equalises the relative commodity price in the two countries but also equalises the relative wage rate". Discuss.

6. Discuss the effects of change in commodity prices on real factor rewards in international trade.

7. What is the Leontief Paradox? How and to what extent it can be reconciled with Ohlin's theory of international trade?

8. Explain the impact of changes in factor endowments on output, volume of trade, national income, employment, gains from trade and terms of trade.

Further Readings

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Web Links

http://www.citizen.org/trade

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Unit 03: Kravis and Linder Theory of Trade

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Objectives

- Understand the law of comparative advantage
- Understand the relationship between opportunity cost and relative commodity prices
- Explain the basis for trade and show the gains from trade under constant costs conditions

Introduction

It is observed that the Ricardian theory and H-O theory provided good explanations of trade theory till the first half of the 20th century. However, in due course many researchers observed that comparative advantage seemed to be less relevant in the modern world. Economists now believe that the traditional trade theories (i.e. Ricardian theory and H-O theory) fail to provide a complete explanation of the structure of the world trade. The world trade data now contains several empirical regularities or stylized facts that appear to be inconsistent with the traditional theories. Thus, the assumptions of H- O theory like – perfect competition, constant returns to scale, and same technology are invalid in today's context of world trade. Hence, economists have modified H-O theory by relaxing most of its assumptions and have developed new trade theories or complementary trade theories. These new theories are based on economies of scale, imperfect competition, and differences in technology among nations.

The new theories can be broadly categorized into three types –

(1) Neo – technological trade theories

(2) Intra-industry trade models

(3) Strategic trade policy models.

Neo – Technological Trade Theories

The neo-technological trade theories emphasize the importance of technological innovation and the technological gap across firms and countries as a major source of international trade. The main theories are as follows:

International Economics

Kravis' Theory of Availability

In 1956, I.B. Kravis, an American economist, questioned the assumption of the classical theory that technology was the same in all trading countries. While testing the H.O. theory he wanted to find out whether labor-intensive exports were produced by cheap labour. But he found that in almost every country the exporting industries paid the highest wage rates. According to him, a country produced and exported those goods which it had 'available', that is, goods developed by its entrepreneurs and innovators. Thus, Kravis propounded the theory that the commodity composition of trade is determined primarily by 'availability'. Availability means an elastic supply. Trade takes place in only those goods which are 'not available at home.' By this phrase he means (a) a country will import those goods which are not available in the absolute sense, for example, diamonds; (b) export those goods which are available in quantities greater than domestic demand.

Kravis has explained four factors which influence availability. They are: natural resources, technical change, product differentiation, and government policy. Firstly, it is the availability of scarce natural resources that determines the trade pattern of a country. The second factor is the availability of technical knowledge possessed by a country for producing a particular commodity which it exports. The third factor is product differentiation which confers temporary monopoly of production on the innovating country so that it is able to export its commodity until the importing country imitates. Government policy influences trade in a negative way. Tariff policies, transport costs, cartelization etc., tend to eliminate from trade those goods which are available to a country through domestic production at slightly higher cost. Thus, unavailability of a commodity is the result of lack of natural resources, technical knowledge, product differentiation or protectionist policies.

The availability theory can be explained with the help of an example. Suppose there are four countries: America (A), Britain (B), Canada (C) and Denmark (D). There are two goods, food (F) and manufactures (M). Both goods require labour and capital. But the production of F also requires land, and the production of M technical knowhow. It is further assumed that countries A, B and C posses land while B, C and D possess technical knowhow. Hence country A can only produce good F and country D only good M, but the other two countries B and C can produce both goods.

Suppose that the marginal rate of transformation between goods F and M is constant in both countries B and C, and that it is 5 F for 1 M in country B and 3 F for 1 M in country C. An equilibrium price ratio between F and M will be determined by the world demand conditions and production possibilities. Based on availability, country A will always exports good F, and D country good M. But the equilibrium price ratio governs the trade patterns of countries B and C. If the price ratio is less than 3 F for 1 M both would export F. If it is greater than 5 for 1 M, they would export M. If the price ratio is set at 4 F for 1 M, then country B would export F and C country good M.

To sum up, country A would export good F to country D, and country D would export good M to country A on the basis of availability theory since each country cannot produce the imported good domestically. However, trade between B and C can be explained in terms of the comparative cost theory since both countries can produce both goods.
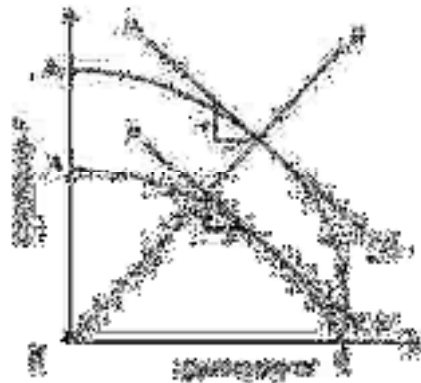
However, we can argue that the availability approach is superior to the factor proportions theory. Suppose that good M has always a higher capital-labour ratio than good F and that country A has a higher capital-labour ratio than country B. But the same technical knowledge is available in both countries. Production of F requires land which is available only in country A, while production of

M requires iron-ore which is available only in country B. That A will export good F and country B good M. This means that the capital-abundant country A will export the labor-intensive good F, and vice versa. If the factor proportions reasoning is applied in the above manner, the answer would be wrong. But if the availability approach is adopted, then the availability of land in A and of iron ore in B would give the right answer. If it is argued that country A has abundance of land and B of iron-ore, therefore A exports the land-intensive good F and country B exports the iron-intensive commodity M, then the factor properties theory also gives the correct answer. Findlay opines that since the list of specific types of natural resources is a very long one, generating the factor proportions approach in this manner becomes a very clumsy tool.

The availability approach is also used to explain special consumer preferences as for Scotch whisky and Swiss watches. In this case, foreign consumers have and 'irrational' attachment to the source of such goods on the basis of past excellent quality, advertising or some other reason. They are, therefore, prepared to pay more for such a commodity from the particular country than for an objectively identical product from another country. Hence a country that produces a commodity of this type will enjoy more favorable terms of trade than its competitor country.

Criticisms.

The availability theory has not been accepted as an alternative to the comparative cost and factor proportions theories. It has been criticized as lacking in empirical evidence and as an inadequate explanation of trade.

1. *Applicable in Special Cases.* The availability approach as an explanation of the trade pattern is applicable in special cases. According to Findlay, availability as the main determinant of trade pattern is true only in very special cases where there are as many commodities as there are countries such that each of the commodities requires an input that is not required by any of the others, and that each country has only one of these types of inputs. For explaining trade in commodities which require readily available inputs, traditional theory is definitely superior.

2. *Fails to State Testable Hypotheses*. Jagdish Bhagwati points out that the availability approach fails to state precisely testable hypotheses. However, he drives five hypotheses from this theory: (1) A country's imports will be characterised by domestic inelasticity of supply. (2) A country's imports will be characterised by the excess of foreign over domestic elasticity of supply. (3) A country's export industries will show rates of technical progress higher than the national average. (4) A country's export industries will show higher rates of technical progress than the same industries in the trading partners. (5) A country's export will be intensive in the use, or consist of raw materials which are relatively abundant in the country. But such Kravis-type hypotheses have neither been clearly formulated and analysed so far nor tested systematically with empirical evidence.

3. *No Adequate Explanation of Trade Patterns.* The availability approach is not an adequate explanation of the trade pattern of a country . It is possible that a country may be exporting a commodity though in a smaller quantity even if foreign consumers do not have attachment to it. Or, it is possible that the country may switch over to the production of some other commodity where its resources can be used more profitably even if foreign consumers do not have preference for it. "What Kravis has in mind seems to be trade in certain articles to which a snob value is attached and which should not otherwise enter world trade as cost differences are too small to warrant international trade."

3.1   Linder 's Theory of Volume of Trade and Demand Pattern

The Swedish economist, S.B. Linder, has propounded a theory that explains the volume of trade in manufactures as proportion of national income between different pairs of trading countries. Linder argues that as a country's per capita income grows, its representative-demand pattern causes an expansion in the domestic production of certain manufactures. This expansion causes such reductions in the costs of these manufactures that they become the country's new comparative advantage exports. In this way, a country comes to export its representative demand product.

Assumptions

Linder's theory is based on the following assumptions :

1. A country's potential trade is limited to those goods which have a domestic demand.

2. The potential trade between two countries is limited to those goods for which demand exists in both countries.

3. The goods for which domestic demand exists, is determined by per capita income.

4. The potential trade between two countries depends on broadly similar income levels.

To begin with, Linder makes a distinction between trade in primary products and in manufactures. While trade in primary products can be explained in terms of relative natural resources endowments, that in manufactures cannot be so explained. For the latter, there are many complex factors such as technological superiority, managerial skills and economies of scale which cannot be put into a precise and predictable pattern. He, therefore, does not explain the precise composition of trade in manufactures. Instead, he propounds a theory concerning the volume of trade in manufactures as proportion of national income between different pairs of trading partners.

The analytical framework of Linder's theory can be explained as follows. The pre-condition for trade in manufactures as an export is the presence of home demand. This is due to several reasons: (a) foreign trade is only an extension of domestic trade; (b) there are innovating centres on existing industries; and (c) it is domestic demand which gives manufactures export possibility. But the main reason is that the foreign market is risky and the home market is not so. Therefore, producers do not wish to depend on foreign market alone. It follows that the internal demand pattern determines the range of potential export commodities.

A country will export only those products for which it has a large and active domestic demand. It is only when the production for the domestic market is large that firms are able to achieve economies of scale and reduce costs, and enter the foreign market.

According to Linder, a country will export its products more to those countries whose income levels and demand patterns are similar to those of the exporting country. This is what he calls "preference similarity". This preference similarity leads to overlapping of demands. Linder argues that other things being equal in a given country, consumers in higher income groups demand high quality goods and those in low-income groups demand low quality goods. The same rule applies at the international level where on an average low-income country will tend to demand low quality products and high-income countries high quality products. This does not mean that high income countries do not demand low quality products, and low-income countries high quality products. In fact, income distribution is not equal in any society. High- and low-income groups are found in every country. That is why there is preference similarity in different countries and demand patterns overlap. These lead to the existence of trade relations among countries, and every country produces and exports a variety of manufactured products after meeting its domestic demand.

Linder's theory of preference similarity or overlapping demand is explained in terms of Fig. 2
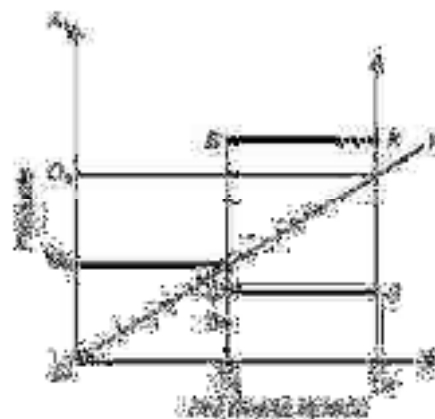
We take two countries A and B. Per capita income is taken on the horizontal axis and quality products on the vertical axis. Ray OR depicts relationship between them. Country A with higher per capita income OY. demands higher quality products Qa; while country B with lower per capita income OYb demands lower quality products Qb. If there is equal distribution of income among all persons in each country, there will be no trade between the two countries because each country will produce only one standard quality product demanded by the residents.

In reality, income distribution is uneven. So in each country products of both qualities are demanded. Suppose in country A income distribution leads to demand for both products in the

range AS. while in country B the range is BD. The range of overlap demand in the two countries is BC = KS. Since there is overlapping of demands, trade is possible between the two countries. The higher per-capita income country A will export the higher quality product Qa to the lower per capita income country B to meet the demands for consumers in higher income group. On the other hand, the lower per capita income country will export the lower quality products Qb to the higher per capita income country A to meet the demands for consumers in lower income group. The greater the overlap in the product composition of potential exports range of a trading country, the larger will be the volume of trade. The larger the potential volume of trade, the higher will be the income level in the trading country. And, the larger the potential volume of trade, the larger will be the actual volume of trade.

3.2 <u>Technological Gap Theory</u>

The Ricardian and Heckscher-Ohlin theories are based on the assumption that technology is the same in all trading countries. As such, they do not analyse the effect of technological change on trade. M.V. Posner[1] in an article in 1961 analysed the effect of technology on trade. Posner regards technological changes as a continuous process which influences the pattern of international trade. A technological innovation in the form of production of a new good in one country leads to the imitation gap and the demand gap in the other country. The extent to which trade will take place between the two countries depends on the net effect of the demand lag and the imitation gap.

Assumptions

Posner's theory is based on the following assumptions: 1. There are two countries. 2. There are similar factor endowments in both. 3. Demand conditions are similar in both. 4. Pre-trade factor price ratios are similar in both. 5. Technologies differ in both countries.

Explanation

The imitation gap theory explains the sequence of innovation and imitation as it affects the pattern of trade. When a firm innovates in the form of a new product which becomes profitable in the domestic market, it enjoys a temporary monopoly. As it exports the product to foreign market and has an absolute advantage in this product. After some time, the profits of the innovating firm encourage imitation in the other country. But it will continue to export the product and have a comparative advantage in its production till the importing country learns the new process, change plant, equipment, etc. in order to produce it. This is the imitation gap. Imports of the new product in the other country continue during the period of the imitation gap.

According to Posner, the imitation gap has three components. The first is the 'foreign reactions lag' which is the time taken by the innovating firm to start the production of the new product. The second is the 'domestic reaction lag' which is the time taken by other domestic producers to follow suit and establish a hold on the domestic market. The third is the 'learning period' which is the time taken by domestic producers to master the technique of producing the new product and selling it in the domestic market. These three components together form the imitation lag. There is also the 'demand lag' which is the time taken by consumers in the importing country to acquire the taste for the new product. Imports of the new product will not continue by the full duration of the imitation lag due to the demand lag.To obtain the period during which its imports will continue, the demand lag must be substracted from the imitation lag. If producers in the importing country start producing the new product (imitate) quickly and consumers in that country are slow to adopt (demand) the new product, the imitation lag will be shortened and the period of importation of the new product will be reduced. On the contrary, if consumers adopt (demand) the new product quickly and producers are not able to produce it, the imitation lag will be lengthened, and the country will continue to import the new product for a long time. It is only when the imitation lag equals the demand lag that imports of the new product will fully stop. Thus the pattern of trade between the two countries will depend upon the relative strength of these two lags.
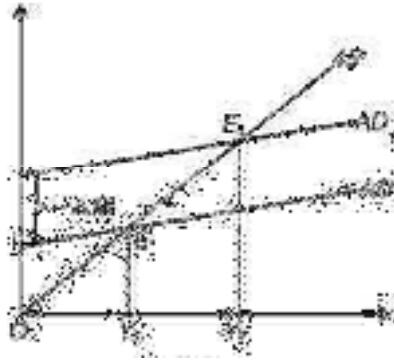
Posner's theory is explained in Fig. 3 where time is plotted on the horizontal axis and the trade balance of the innovating country A against the imitating country B is taken on the vertical axis. Upto point t1 , there is no trade between the two countries, in say good X. At t1 , A innovates the new product. The demand lag in B will determine the amount of exports of A and thus the slope of t1B. The imitation lag will determine how long country B will import the commodity from A and the extent of A's exports. If there is no imitation of the commodity in B, country A will continue to export it till exports reach the maximum level B at time t3 . The period from t1 to t3 is the demand lag. If producers in B start producing the new product by time t3 , the exports of A will decline and may even stop at time t4 , as shown by the downward arrow from B to t4 . In this situation, the imitation lag t3 t4 is shorter than the demand lag. If the imitation lag is longer and producers in B are unable to adopt the innovation of the new commodity till time t5 , country A will continue to export it to its maximum level B1 . As B starts producing this commodity, the imitation lag becomes shorter and exports from A continue to decline until they fully stop at time t6 when the commodity is fully imitated in country B. If producers in B introduce a new innovation in the commodity so that it is better than A's commodity, B will penetrate A's market. In this case, A will start importing it from B, as shown by the downward arrow from t6 to A.

Further, Posner combines the two concepts of innovation and imitation lag into a single concept of 'dynamism'. He defines the dynamism of a country in international trade as a function of the rate at which it innovate (i.e., the number of new products it introduces per unit of time), and the speed with which it imitates foreign innovations. If two trading countries have an equal degree of dynamism, they will have trade without any balance of payments difficulties, and trade leads to all round development as innovations from each country are quickly imitated in the other. If one trading country has a higher degree of dynamism than the other, the second country will find its balance of trade in deficit because it will be importing more of the new product. It will try to correct the balance of trade by exporting its traditional products at less favourable prices to the first country. The impetus to trade in traditional products is caused by the dynamic factors of innovation and imitation with the importation of the new product from the first country.

Criticisms

The imitation gap theory of Posner is more realistic than the traditional theories because it analyses the effect of technical changes on the pattern of international trade. But it has certain weaknesses. It fails to answer the following questions: (a) What generates innovation in country A, and subsequent innovations? and, (b) What is the competitive pattern of innovations in the two countries?

3.3   Intra – Industry Trade Models

Intra – industry trade refers to trade between identical countries which are exporting & importing similar but differentiated products. The intra- industry trade models developed after 1970s take into account firm level internal economies of scale and product differentiation in explaining trade between identical economies. In the late 1970s, several researchers like - Krugman, Dixit & Norman, Lancaster etc. independently formalized the idea that economies of scale and imperfect competition can give rise to trade even in the absence of comparative advantage. It was the Grubel & Lloyd's (1975)7 study which formed the basis for the development of intra-industry trade models. They found that international trade was maximum between identical (capital abundant) developed countries, and these countries, exported and imported similar but differentiated products. It was Krugman (1979) who formalized it into a systematic general equilibrium model by taking Dixit &

Stiglitz's (1977) 8 general equilibrium theory of monopolistic competition for the first time. The main intra –industry models are as follows:

(1) Krugman's Model (1979)–

Paul Krugman's model marks a distinctive and realistic departure from the traditional models because it recognizes the role of economies of scale and monopolistic competition in international trade. Krugman in his model points out that trade is possible between the two countries having identical tastes, technology, factor endowments & income levels, because of product differentiation and internal economies of scale in production. Thus, the sources of trade between identical economies lies in product differentiation and internal economies of scale in production of manufactured goods under a monopolistic competitive framework. The implications of his model are as follows; (a) Trade increases the choice of goods available to consumers and thereby improves consumer welfare. (b) Trade can cause an increase in demand, production and real income, facilitated by economies of scale.

(2) Brander – Krugman Model (1983) –

The Brander- Krugman model of intra-industry trade is based on oligopolistic competition. This model considers the application of the concept of dumping in international trade. The Brander-Krugman model considers a situation in which two firms of two countries resort to dumping in each other's domestic market. Hence, their model is also known as reciprocal dumping model. Dumping in the context of international trade means a practice in which a firm sells its products in foreign market at a price much lower than its domestic price. The situation in which dumping leads to a two way trade in the same product is known as reciprocal dumping. The possibility of dumping in international trade was first noted by Brander (1981)11 and then extended by Brander & Krugman (1983). The Brander- Krugman model suggests that with the opening up of trade the monopoly situation turns into a duopolistic market structure, which is a form of oligopolistic competition. Thus, their reciprocal dumping model explains the intra-industry trade in homogenous products under oligopolistic competition. However, the model fails to explain the net effect of such peculiar trade on a nation's economic welfare.

(3) Strategic trade policy models.

The strategic trade policy models provide certain theoretical justification for policy intervention such as home market protection and export subsidies towards increasing exports and national welfare. In the broader sense, the strategic trade policy models are an extension of intra-industry trade models. These models are developed in a partial equilibrium framework by assuming oligopolistic competition. The basis of these models lies in the trade war between industrialized countries such as United States, Japan, and the European Community. Two strategic trade theory models are as follows: (a) Krugman's Model (1984)12– Krugman's strategic trade policy model shows that import protection of domestic producers could lead to export promotion. In this model three forms of economies of scale are taken into account - (a) Static internal (to a firm) economies, (b) Economies in Research & Development and investment, (c) Dynamic economies of learning by doing. (b) Brander & Spencer's Model (1985)13– Brander & Spencer's model shows that export subsidies could help domestic producers to capture third country markets at the cost of foreign rivals. This is a two stage model in which governments (simultaneously) choose subsidy levels in the first stage and firms (simultaneously) choose output levels in the second stage. There is no domestic consumption in either country. i.e. firms produce only for the third country market. The model assumes foreign firm does not receive export subsidy. An export subsidy to a domestic firm is considered as a reduction in its cost of production. Hence, it becomes profitable for the domestic firm to expand its sale in the third country market, and capture a large market share at the cost of the foreign rival. Briefly, it can be said that the new theories are quite capable of explaining the pattern of world trade today.

3.4   Rybnszynski Theorem

In both Heckscher-Ohlin theory and the factor- price equalisation theory, the assumption was taken that the factor endowments were fixed. T.M. Rybczynski, published a paper in 1955 to investigate the effect of an increase in the quantity of a factor of production upon production, consumption and the terms of trade.

This theorem states that the increase in the supply of one of the factor of production, other factors remaining the same, causes the output of the good using the accumulating factor intensively to

increase and the output of the other good to decrease in absolute amount, provided that commodity and factor prices remain unchanged. Suppose in a labour- surplus country, the supply of labour gets increased. It will lead to an increased output of the labour- intensive commodity, say cloth, and reduced output of the capital- intensive commodity, say steel.

Assumptions of the Rybczynski Theorem:

(i) The trade takes place between two countries. The case of only one of the two countries will be discussed here.

(ii) The given country is labour-abundant and capital-scarce.

(ii) This country produces two commodities— cloth and steel.

(iv) The production of these commodities requires two factors—labour and capital.

(v) Capital and labour are perfectly mobile, perfectly divisible and substitutable in some degree.

(vi) Cloth is labour-intensive good and steel is a capital-intensive good.

(vii) There are the conditions of perfect competition in the product and factor markets.

(viii) The production functions related to both the commodities are homogenous of the first degree. That implies constant returns to scale in production.

(ix) The factor and commodity prices are constant.

(x) The supply of the factor labour expands while that of capital remains the same.

It is now clear that Rybczynki makes departure from H-O theorem and factor-price equalisation theorem in respect of his abandoning the assumption of fixed factor supplies. He discusses the effect of an increased supply of the factor in which the country is abundant upon production, factor and commodity prices and the terms of trade. His theorem is explained through Fig. 4.

Fig. 4
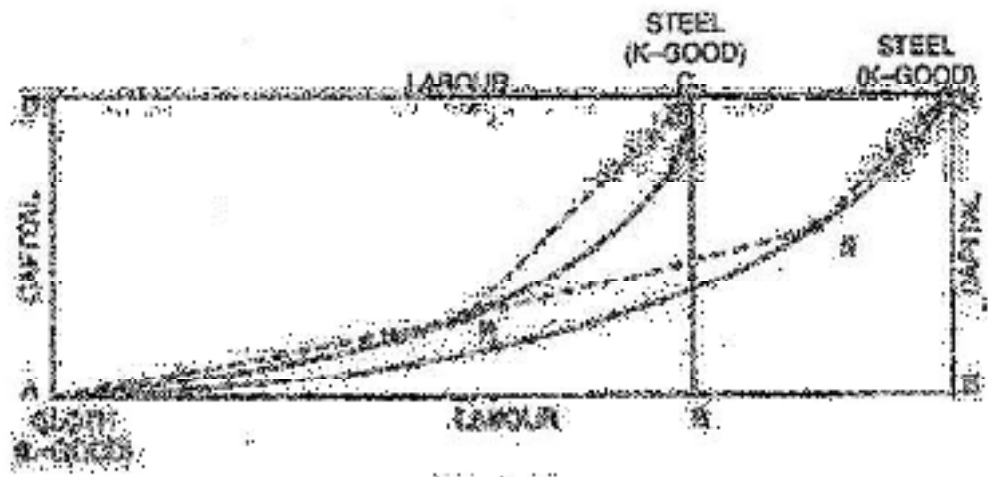
ABCD is the Edgeworth box concerning the given country. It shows that this country is labour-abundant and capital-scarce. A is the origin of the commodity cloth which is labour- intensive (L-good). C is the origin for the good steel which is capital- intensive (K-good). AC is the non-linear contract curve sagging downwards. The production takes place at R. The K-L ratio in cloth is measured by the slope of the line AR and K-L ratio in steel is measured by the slope of the line RC.

It is now supposed that the supply of labour is increased by BE, capital stock remaining the same, so that the new box diagram is AEFD. Now A and F are the points of origin for the goods cloth and steel respectively. AF is the non-linear contract curve. A is the origin for the L-good cloth and F is the origin for K-good steel. Production, in this case, takes place at S. The K-L ratio in cloth is measured by the slope of the line AS and the K-L ratio in steel is measured by the slope of the line SF.

The factor-intensity in the two commodities remains unchanged at the points R and S. Since R and S lie on the same straight line AS, the K-L ratio in cloth remains unchanged. On the other hand, the line RC is parallel to SF. Since the slope of RC and SF are equal, there is no change also in the K-L ratio in the capital-intensive commodity steel.

When the factor- intensity in both the commodities remains the same, there will be no change in the prices of the two factors. It shows that the Rybczynaski theorem refutes the possibility of factor price equalisation. As the increase in the supply of labour in the labour-abundant country and increase in capital stock in the capital-abundant country leaves the prices of two factors unchanged, there can be no equalisation in the factor prices.

When there is no change in the prices of the factors of production, the prices of two commodities will also remain the same as before. The most significant effect of an increase in the supply of factor will be upon the volume of production. The distance of the point of production equilibrium from origin measures the quantity produced of a commodity. In case of cloth, the original production is measured by the distance AR. Subsequently, it is measured by the distance AS. Since AS is greater than AR, it signifies an increase in the production of cloth after there is an increase in the supply of labour.

In case of steel, the production at R was originally indicated by the distance RC and subsequently it is measured by the distance SF. Since SF is shorter than RC, it follows that the production of K-good steel decreases after there is an expansion in the supply of labour in this country. Thus, the conclusion can be drawn that the increased supply of one factor, keeping the other unchanged, will raise in absolute amount the production of good intensive in the increasing factor, while the production of the other good will get reduced in absolute amount. The above analysis suggests that the commodity prices of the two commodities remain constant. This can happen only if the prices of two factors remain constant. It implies that the capital- labour ratio in the two industries remains constant. But how can all this be possible when the quantity of one of the two factors goes on increasing. In this connection, it may be stated that increase in the supply of labour will result in the entire additional labour going into the labour-intensive industry. There will also be diversion of labour from the capital- intensive industry (steel). Along with the diversion of labour, some amount of capital will also be diverted from the steel industry to the labour-intensive cloth industry.

Consequently, the production of cloth expands and that of steel contracts but the K-L ratios in two industries, factor prices and commodity prices still remain unchanged. If the labour force continues to expand indefinitely, the country will soon become completely specialised in the production of cloth. The constancy of the commodity prices implies that the terms of trade will remain unaffected. However, the equilibrium with constant prices, when supply of one factor has been increasing, is not compatible with general equilibrium. It may be possible if one of the two commodities, particularly the commodity intensive in the other factor (capital) is inferior. But neither of the two commodities— cloth and steel, can be considered inferior.

The general equilibrium in such a situation can be possible only if the price of the commodity intensive in the expanding factor decreases. It means the terms of trade are likely to become worse for the country in which one factor has been expanding. This is explained through Fig. 5
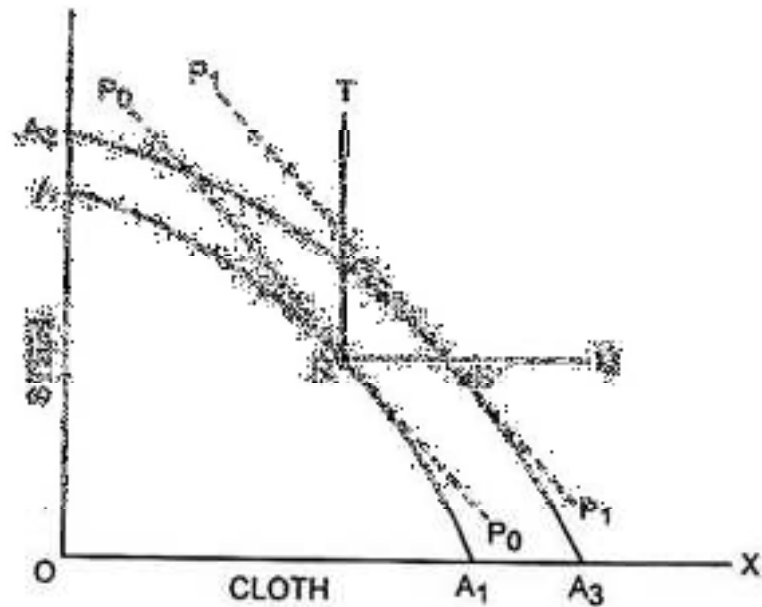
In Fig. 5, the labour-intensive commodity cloth is measured along the horizontal scale and the capital-intensive commodity steel is measured along the vertical scale. The production possibility curve AA-1 is derived from the box ABCD shown in Fig. 4. The international terms of trade are denoted by the slope of P0P0. The production equilibrium is determined at R.

The expanded supply of labour along with diversion of labour and capital from steel industry to cloth industry gives the new production possibility curve A2A3 derived from Box AEFD in Fig. 8.12. If the prices of two commodities remain the same, the terms of trade line P1P1 is parallel to P0P0. The production equilibrium takes place now at S where P1P1 is tangent to A2A3. The point S shows a larger production of labour-intensive commodity cloth and reduced output of the capital-intensive commodity steel. This can happen only if steel is an inferior commodity. The expansion in labour force and shift in the production possibility curve to the right imply an increase in national income.

In such a situation, barring the inferior goods, the demand for both the goods must increase. Therefore, the new position of equilibrium must lie on that part of the production possibility curve A2A3 that lies between the lines RQ and RT. The slope of this segment on the curve A2A3 is less steep than the slope of AA1 at R. It implies that the price of cloth will be relatively lower and that of steel is relatively higher. A lower price of exportable commodity cloth and a higher price of importable commodity steel mean that there is deterioration of terms of trade subsequent to an increase in the supply of labour.

About the pattern of consumption, Rybczynski explained that the pattern of consumption may remain unaltered, or change in favour of one good or the other despite the change in the relative prices of the two commodities. If the marginal propensity to consume of the product intensive in the accumulated factor is equal to or greater than the average propensity to consume, the production and the consumption pattern will change in the direction of the product intensive in that factor. When the marginal propensity to consume falls short of the average propensity to consume, the new production and consumption pattern may still change in favour of the commodity using much of the factor increased, or may remain unchanged or move in the direction of the other good. This depends upon the relative magnitudes of the average and marginal propensities to consume. From the above analysis, it is obvious that the Rybczynski theorem has several implications related to production, factor and commodity prices, and terms of trade and consumption pattern. However, its implication related to the factor price equalisation is most clear-cut. When the supply of the abundant factor increases rapidly, the factor price ratio may remain unchanged preventing the equalisation of factor prices among the trading countries.

3.5   Criticisms of the Rybczynski Theorem

E.J. Mishan has raised two major objections against the theorem given by Rybczynski. Firstly, if the increase in the supply of one factor (labour) is accompanied by the increased supply of the other

factor (capital), the results suggested by Rybczynski are not likely to follow. Secondly, there is technical difficulty in extending Rybczynski's two- factor model to a multi-factor system.

The process of economic growth may bring about an increase in level of output in the growing economy and the wealth effect may even be positive but the deterioration in the terms of its trade may be so large that it more than offsets the positive wealth effect. In such a situation, there can be a net decline in the welfare of the nation. In other words, it become worse off than before. The process of growth and trade, resulting in the country becoming poorer in respect of welfare, has been termed as 'immiserising growth' by Jagdish Bhagwati.

Assumptions

(i) There are two countries, the home country A and the foreign country B.

(ii) The home country experiences growth while the other country is not experiencing any growth is real output.

(iii) There are two commodities X and Y.

(iv) X commodity is the exportable commodity of country A whereas Y is its importable commodity.

(v) There is full employment or resources.

(vi) The technical progress is neutral.

(vii) The growth results in an expansion in the supply of abundant factor, say labour.

(viii) Productive factors are mobile between the two countries.

The case of immiserising growth can be explained on the basis of the above assumptions with the help of Fig. 5
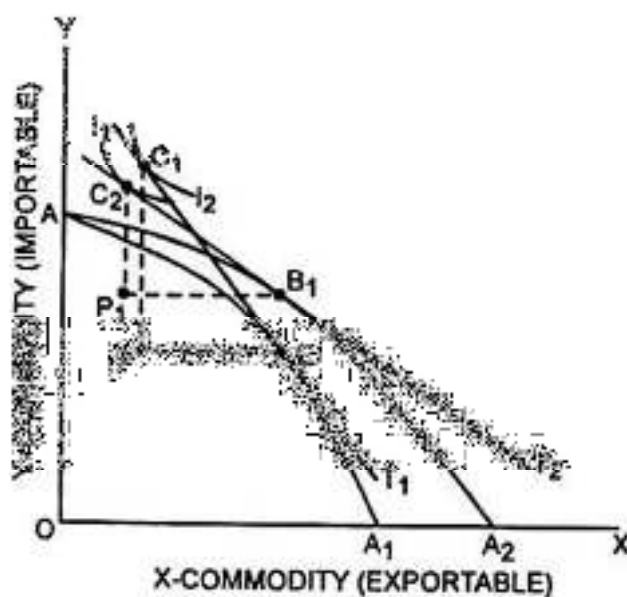
In Fig. 5, AA_1 is the original production possibility curve and T_1 is terms of trade line. The production equilibrium is determined at B. The consumption equilibrium takes place at C_1 where T_1 is tangent to the community indifference curve I_2. Country A exports BP quantity of X and imports C1P quantity of Y commodity. As growth takes place and the labour supply increases, the production possibility curve shifts to AA_2.

The price of labour- intensive commodity X falls relative to the commodity Y so that the slope of the terms of trade line T_2 decreases. Production takes place at B1 and consumption takes place at C2 where the terms of trade line T_2 becomes tangent to the indifference curve I1. Thus after growth takes place, B1P1 quantity of X is exported and C_2P_1 quantity of Y is imported.

There is an increase in production of importable commodity due to growth and its higher relative price. On the other hand, the consumption of importable commodity decreases due to relative rise

in the price. No doubt, there is an increase in production but terms of trade for the home country become worsened to such an extent that consumption point shifts from the higher indifference curve to the lower indifference curve. Consequently, the level of welfare shrinks after growth. It signifies the immiserising growth.

Salvatore has mentioned the different situations in which a given country A, may experience the immiserising growth.

Firstly, the immiserising growth may take place, when the exports of the given country A tend to expand substantially at constant terms of trade.

Secondly, immiserising growth can occur when country A is so large that the attempt to expand its exports results in the terms of trade worsening for it.

Thirdly, the terms of trade of country A can deteriorate, if income elasticity of country B's demand for the exports of country A is very low. Fourthly, in case of a small developing country, this phenomenon can occur on account of such distortions as monopoly trade and tariffs. Fifthly, the state of immiserising growth for country A can arise, if it is so greatly dependent on trade that a substantial worsening in its terms of trade results in a decrease in its national welfare. This, phenomenon is likely to prevail in the large developing countries having inelastic demand for their exports in foreign countries. In case they produce a bumper crop, the international prices tend to crash and their terms of trade become unfavourable. That involves them in the immiserising growth.

However, this phenomenon does not seem to be greatly prevalent in the real world. Even if it is recognized that there has been a secular deterioration of terms of trade for the developing countries, that has been made up by a substantial increase in production and resultant increase in real per capita income and welfare. The increase in real per capita income would have been much greater, if the growth of population had occurred at a relatively lesser rate.

Summary

Aside from trade based on technological gaps and product cycles which is dynamic in nature, the trade theory discussed thus far is completely static in nature. That is, given the nation's factor endowments, technology, and tastes, we proceeded to determine the nation's comparative advantage and the gains from trade. However, factor endowments change over time; technology usually improves; and tastes may also change. As a result, the nation's comparative advantage also changes over time.

Keywords

- Kravis' Theory of Availability: In the Kravis' (1956) model, technological innovation as. a basis of trade operates through his product availability hypothesis. The availability approach. seeks to explain the pattern of trade in terms of domestic availability and non-availability of goods.

- Linder 's Theory of Volume of Trade and Demand Pattern: The Linder hypothesis presents a demand-based theory of trade. This is in contrast to the usual supply-based theories of trade involving factor endowments. Linder hypothesized that nations with similar demands would develop similar industries.

- Technological Gap Theory: Technology Gap Theory is a model developed by M.V. Posner in 1961, which describes an advantage enjoyed by the country that introduces new goods in a market. The country will enjoy a comparative advantage as well as a temporary state of monopoly until other countries have achieved the ability to imitate the new good.

- Rybnszynski Theorem: This theorem states that when a region is open to trade with other regions, changes in regional relative factor supplies can be fully accommodated by changes in regional outputs without requiring changes in regional factor prices.

- Intra-Industry Trade: Intra-industry trade refers to the exchange of similar products belonging to the same industry.

- Immiserizing Growth : When opening up of the economy leads to reduction in welfare

Self Assessment

1. The Rybczynski theorem argues that if one factor of production (e.g. capital) increases in a country, than the output of goods which are intensive in that factor will _____.
A. increase
B. decrease
C. remain the same
D. none of the above

2. The Rybczynski theorem implies that immigration will lower wages. *
A. true
B. false
C. uncertain
D. none of the above

3. A change in the price of a traded good results in a more than proportional change, in the same direction, in the price of the factor that is used in the production of that good ore intensively." This is the definition of the _____. *
A. Stolper-Samuelson theorem
B. Heckscher-Ohlin theorem
C. Rybczynski theorem
D. none of the above

4. According to the trade theory of Staffan Linder trade tends to be most pronounced in manufactured goods when trading countries have ?
A. similar endowments of natural resources
B. similar levels of technology
C. similar per-capita incomes
D. similar wage levels

5. Technological gap model or Imitation Gap Model was developed by:
A. M.V. Posner
B. Samuelson
C. Ricardo
D. Kravis

6. Economies of scale and net work effects resulting in exports of goods is related to
A. New Trade theory
B. Factor equalization theorem
C. Comparative cost advantage theory
D. The Heckscher-Ohlin theory

7. Intra - industry trade refers to the trade in _____ products.

A. Identical

B. Differentiated

C. Complementary

D. Non-related

8. New Trade Theory emphasizes on

A. Economies of scale

B. Imperfect competition

C. Differentiated Products

D. All of the above

9. Which of the following is not an example of intra-industry trade?

A. Europe exports Airbus airplanes and imports Boeing airplanes.

B. Americans export Jeeps and import Jaguars.

C. Japan exports cars and imports oil.

D. America exports films to the rest of the world and imports foreign films.

10. Which of the following statements about intra-industry trade is accurate?

1) Intra-industry trade occurs primarily between developed countries.

2) Intra-industry trade is less prevalent where trade barriers are low.

3) Intra-industry trade has become more prominent over the last 50 years.

A. (1) + (2)

B. (2) + (3)

C. (1) + (3)

D. (1) + (2) + (3)

11. Which of the following refers to the situation that arises when consumers view products produced in an industry as similar, but not perfect substitutes for each other?

A. product differentiation

B. net trade

C. intra-industry trade

D. constant returns to trade

12. According to the trade theory of Staffan Linder, trade tends to be most pronounced in manufactured goods when trading countries have

A. similar endowments of natural resources

B. similar levels of technology

C. similar per-capita incomes

D. similar wage levels

13. If tastes are identical between countries, then comparative advantage is determined by:

A. supply conditions only.

B. demand conditions only.

C. supply and demand conditions.

D. can't tell without more information.

14. Intra-industry trade can be explained by all of the following except

A. high transportation costs as a proportion of product value

B. different growing seasons of the year for agricultural products

C. product differentiation for goods such as automobiles

D. high per capita incomes in exporting countries

15. Who has given the theory of 'immiserising growth'

A. Jagdish Bhagwati

B. David Ricardo

C. Adam Smith

D. I.B. Kravis

Answers for Self Assessment

l.	A	2.	B	3.	A	4.	C	5.	A
6.	A	7.	B	8.	D	9.	C	10.	C
11.	A	12.	C	13.	A	14.	D	15.	A

Review Questions

1. Critically explain Kravis's availability theory.
2. What is novel in Linder's Volume of Trade Theory? Explain this theory.
3. How can intra-industry trade be measured? What are the shortcomings of such a measure?
4. How can our trade theory of previous chapters be extended to incorporate changes in the nation's factor endowments, technology, and tastes? Is the resulting trade theory a dynamic theory of international trade? Why?
5. What does the Rybczynski theorem postulate?

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Web Links

http://www.citizen.org/trade

http://www.citizen.org/trade

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Unit 04: Gains from Trade and Terms of Trade

Objectives

- Understand the basis of terms of trade
- Use offer curve to understand the terms of trade

Introduction

Just as two traders in the same country enter into exchange for the consideration of making some gain, in the same way two countries get engaged into transactions for deriving some gain. The economists have viewed the gains from trade from different angles. The classical theorists believed that gains from trade resulted from increased production and specialisation.

Jacob Viner pointed out that the gains from trade were measured by the classical economists in terms of:

(i) Increase in national income,

(ii) Differences in comparative costs, and

(iii) Terms of trade.

The modern theorists considered the gains from trade as the gains resulting from exchange and specialisation.

4.1   Gains from Trade

The gains from trade refer to net benefits or increases in goods that a country obtains by trading with other countries. It also means the increase in the consumption of a country resulting from exchange of goods and specialization in production through international trade. The theory of gains from trade was at the core of the classical theory of international trade.

According to Adam Smith, the gains from trade resulted from the advantages of division of labor and specialization both at the national and international level. They were due to the existence of

absolute differences in costs, that is, each country would specialize in the production of that commodity which it could produce more cheaply than other countries and import those commodities which it could produce dearly. Thus international specialization would increase world output and benefit all the trading countries.

For Ricardo, extension of international trade very powerfully contributed 'to increase the mass of commodities, and therefore, the sum of enjoyments... obtaining the imported goods through trade instead of domestic production.' J.S. Mill analyzed the gains from international trade in terms of his theory of reciprocal demand which depends upon the terms of trade. In modern analysis, the gains from international trade refer to the gains from exchange and the gains from specialization based on the general equilibrium analysis.

4.2 Potential And Actual Gain from International Trade

Economists usually distinguish between potential and actual gain from international trade. The potential gain from international trade is the difference in domestic cost ratios of producing two commodities in two countries. If X and Y are two commodities and A and B two countries, then the potential gain can be expressed as

$$G_p = \left[\frac{Cx}{Cy}\right]_A - \left[\frac{Cx}{Cy}\right]_B$$

where G_P is the potential gain, C_X is the cost per unit of X, C_Y is the cost per unit of Y, and the subscripts A and B refer to the two countries.

n the other hand, the actual gain from international trade is the difference in price ratios of two commodities in the two trading countries. Assuming X and Y as two commodities and A and B as two countries, the actual gain can be shown thus

$$G_A = \left[\frac{Px}{Py}\right]_A - \left[\frac{Px}{Py}\right]_B$$

where G_A is the actual gain, P_X is the per unit price of X and P_Y is the per unit price of Y.

Under perfect competition and free trade between two countries, the cost ratio equals the price ratio of the two commodities in each country so that the potential gain equals the actual gain,

$G_P = G_A$

But if there are tariffs and other trade restrictions and commodity and factor markets are imperfect, the price and cost ratios will not be equal in each country. If the price ratio is more than the cost ratio, the actual gain will be less than the potential gain. Symbolically,

$\left[\frac{Px}{Py}\right] > \left[\frac{Cx}{Cy}\right]$

Therefore, $G_A < G_P$

Since there is always imperfect competition in world markets the actual gain is always less than the potential gain in international trade.

4.3 Measurement of Gains from Trade

Economists have adopted various methods to measure the gains from international trade which are explained as under:

The Classical Method. Jacob Viner points out that the classical economists followed three different methods or criteria for measuring the gains from international trade: (1) differences in comparative costs; (2) increase in the level of national income; and (3) the terms of trade. But they often intermixed these methods without specifying them clearly. We discuss them as under.

Ricardo's Approach. To take Ricardo's approach first, a country will export those commodities in which its comparative production costs are less, and will import those commodities in which its comparative production costs are high. "The country thus economizes in the use of its resources,

obtaining for a given amount thereof a larger total income than if it attempted to produce everything itself."

Prof. Ronald Findlay in his Trade and Specialization (1970) has explained Ricardo's approach to the gains from international trade in terms of Fig. 1. In the pre-trade situation, AB is the production possibility curve of a country which produces two commodities X and Y, given the quantity of labor input. On AB, the country is in equilibrium at point E. After it enters into trade, its international price ratio is given by the slope of the line CB. Suppose that it is in equilibrium at point F on the line CB. If the quantities of X and Y represented by the combination at F are to be produced domestically, the quantity of labour input will have to increase sufficiently to shift the domestic production possibility curve up from AB to A_1B_1. The gains from trade will thus be measured by BB_1/OB.
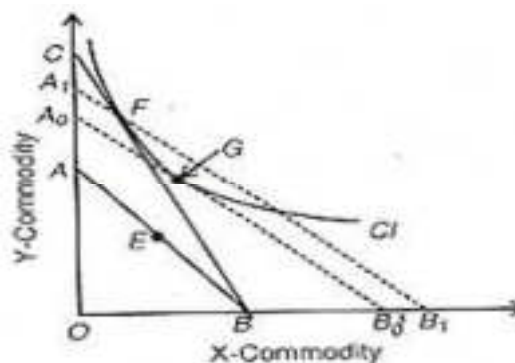
But Malthus criticized Ricardo for greatly over-estimating the gains from trade. In terms of Fig. 1, Malthus's view is that with the shifting of the domestic production possibility curve to A_1B_1, F would not be the equilibrium point. Relative prices along A_1B_1 would not be more favourable to the exported commodity X than along C_B, so that consumer will prefer a point to the right of F on A_1B_1 rather than F itself. Hence the gains from trading along CB cannot be measured by an increase of labour input in the ratio BB_1/OB. This is because the change to the right of F on A_1B_1 is preferable to that on CB.

Prof. Ronald Findlay has modified the Ricardo measure of the gains from trade using the community indifference curve CI. If the labour input is increased sufficiently to push the production possibility curve to A_0B_0 instead of to A_1B_1, the point G on the CI curve will make each individual as better as he is at the free trade point F. The gains from trade would, therefore, be equal to BB_0/OB instead of the larger BB_1/OB. This measure satisfies Malthus's criticism of Ricardo.

J.S. Mill's Approach: A serious deficiency in the Ricardian approach was that it could not explain the distribution of gains from trade among the trading countries. J.S. Mill attempted to analyse both the gains from trade and distribution thereof among the trading countries. He emphasised upon the concept of reciprocal demand that determines terms of trade, which is a ratio of quantity imported to the quantity exported by a given country. The terms of trade decide how the gain from trade is distributed between the trading partners.

Suppose in country A, 2 units of labour can produce 20 units of X and 20 units of Y so that the domestic exchange ratio in country A is : 1 unit of X = 1 unit of Y. In country B, 2 units of labour can produce 12 units of X and 18 units of Y so that the domestic exchange ratio in this country is : 1 unit of X = 1.5 unit of Y. The domestic exchange ratios set the limits within which the actual exchange ratio or terms of trade will get determined.

The reciprocal demand or the strength of the elasticity of demand of the two trading countries for the products of each other will decide the actual rate of exchange of two commodities. If A's demand for commodity Y is less elastic, the terms of trade will be closer to its domestic exchange ratio: 1 unit of X = 1 unit of Y. In this case the terms of trade will be favourable for country B and against country A.

The gain will be more for B than for A. On the contrary, if B's demand for X commodity is less elastic, the terms of trade will be closer to the domestic exchange ratio of country B: 1 unit of X = 1.5 unit of Y. The terms of trade, in this situation, will be favourable for A and against B. Country A will have a larger share out of the gains from trade than country B.

The distribution of gains from trade can be explained in terms of Marshall-Edgeworth offer curve through Fig. 2
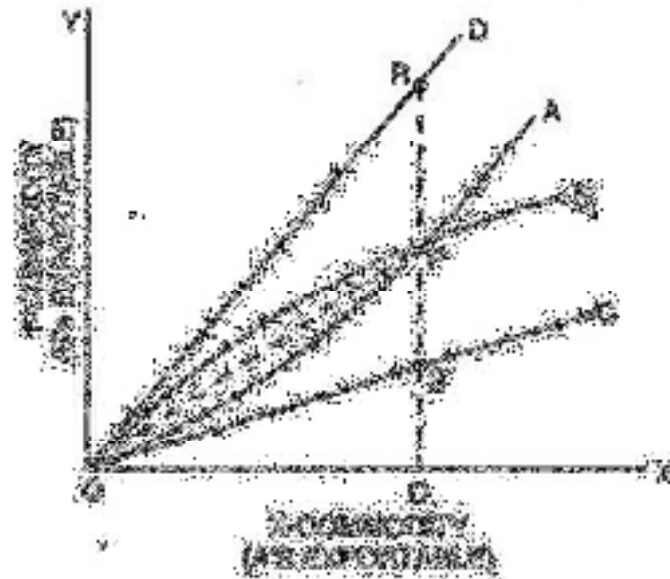
In Fig. 2., OC and OD are the domestic exchange ratio lines of countries A and B respectively. OA is the offer curve of country A and OB is the offer curve of country B. The exchange takes place at P where the two offer curves cut each other. Country A imports PQ quantity of Y and exports OQ quantity of X.

The terms of trade for country A at P = (QM/QX) = (PQ/OQ) = Slope of Line OP. If the line OP gets closer to OD, the terms of trade become favourable to country A and unfavourable to country B. On the opposite, if the line OP gets closer to the line OC, the domestic exchange ratio line of country A, the terms of trade turn against country A and become favourable to country B.

Country A was willing to exchange before trade SQ units of Y for OQ units of X. After trade, it gets PQ units of Y for OQ units of X. Therefore, the gain from trade for country A, out of the total trade gain of RS, amounts to PQ – SQ = PS units of Y. In case of country B, RQ units of Y were being exchanged for OQ units of X before trade.

However, after trade it has to part with only PQ units of Y to import OQ units of X. Therefore, the gain from trade for this country amounts to RQ – PQ = RP units of Y. As the point of exchange P gets closer to the line OD, the share of country A in the gain from trade will rise and that of country B will fall and vice-versa.

Gains from Trade for Large and Small Country

Taking the size of the country, the gains from trade are relatively larger to a small country than to a large country. A small country does not possess many diversified resources and the size of its domestic market is also limited. So, the gains from its domestic specialization and exchange are limited. On the contrary, a large country possesses diversified resources and a large domestic market, so that it is able to reap the gain from specialization and exchange within the country. With the opening of international trade, a small country specializes in the production of those commodities in which it enjoys a comparative advantage and exchanges them in the world market. The more world market prices differ from domestic prices, the greater the benefits that the small country may reap. Heller has sown that under the assumptions of constant opportunity cost and no change in the terms of trade of the large country, the large country shows no gains from international trade and the small country reaps all the gains. The case is illustrated in Fig. 3 (A) and

(B). Fig. 3(A) shows the production possibility curve AL of the large country A wherein the no trade situation it produces and consumes at point C where the community indifference >curve CI is tangent to its production possibility curve AL. Similarly, the small country B produces and consumes at point C where the community indifference curve CI is tangent to its production possibility curve BS_1, as shown in Fig. 3 (B). Since A is a large country, let its domestic price ratio as represented by the curve AL be the international price ratio. The small country B is now faced with the possibility of exchanging its commodity produced at the international price ratio represented by the BS curve parallel to AL. It will gain by specializing in the production of only commodity Y and produce at point B. It also increases its consumption of X at point C_2 on the community indifference curve CI_2 in Fig. 3 (B). Since there is no change in the price ratio (terms of trade of the large country), it simply modifies its production pattern in order to meet the trade requirements of the small country. So it moves to point P. The small country will export TC_2 of commodity Y to the large country, shown as EC of imports in Fig. 3(A), and import TB of commodity X, shown as EP of exports of the large country.
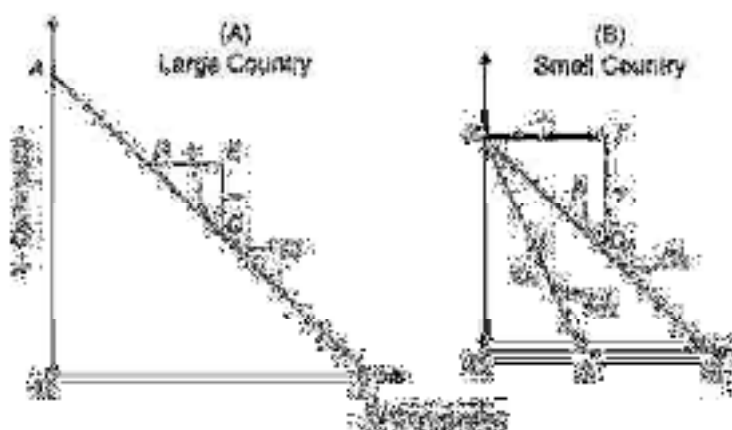
Fig. 3

So the small country has gained both from specialization and exchange by entering into trade with the large country, whereas the large country has not gained at all. "Under conditions of increasing opportunity cost and different demand patterns it is likely that the international terms of trade will find a new equilibrium somewhere between the domestic pre-trade price ratios prevailing in the two countries. In that case, both countries share in the benefits from trade, with the proportion of the benefits accruing to each country depending on how much the international terms of trade change from the pre-trade price ratios. Chances are that these prices changes are more pronounced in the small country and therefore most of the gains accrue to its residents."

4.4 Offer Curves

Offer curves (sometimes referred to as reciprocal demand curves) were devised and introduced into international economics by Alfred Marshall and Ysidro Edgeworth, two British economists, at the turn of the twentieth century. Since then, offer curves have been used extensively in international economics, especially for pedagogical purposes.

The offer curve of a nation shows how much of its import commodity the nation demands for it to be willing to supply various amounts of its export commodity. As the definition indicates, offer curves incorporate elements of both demand and supply. Alternatively, we can say that the offer curve of a nation shows the nation's willingness to import and export at various relative commodity prices.

The offer curve of a nation can be derived rather easily and somewhat informally from the nation's production frontier, its indifference map, and the various hypothetical relative commodity prices at which trade could take place. The formal derivation of offer curves presented in the appendix is based on the work of James Meade, another British economist and Nobel Prize winner.

Derivation and Shape of the Offer Curve of Nation 1

In the left panel of Figure 4.3, Nation 1 starts at the no-trade (or autarky) point A, as in Figure 3.3. If trade takes place at PB = P_X /P_Y = 1, Nation 1 moves to point B in production, trades 60X for 60Y with Nation 2, and reaches point E on its indifference curve III. (So far this is exactly the same as in Figure 4.) This gives point E in the right panel of Figure 4.

At PF = P_X /P_Y = 1/ 2 (see the left panel of Figure 4), Nation 1 would move instead from point A to point F in production, exchange 40X for 20Y with Nation 2, and reach point H on its indifference curve II. This gives point H in the right panel. Joining the origin with points H and E and other points similarly obtained, we generate Nation 1's offer curve in the right panel. The offer curve of Nation 1 shows how many imports of commodity Y Nation 1 requires to be willing to export various quantities of commodity X.
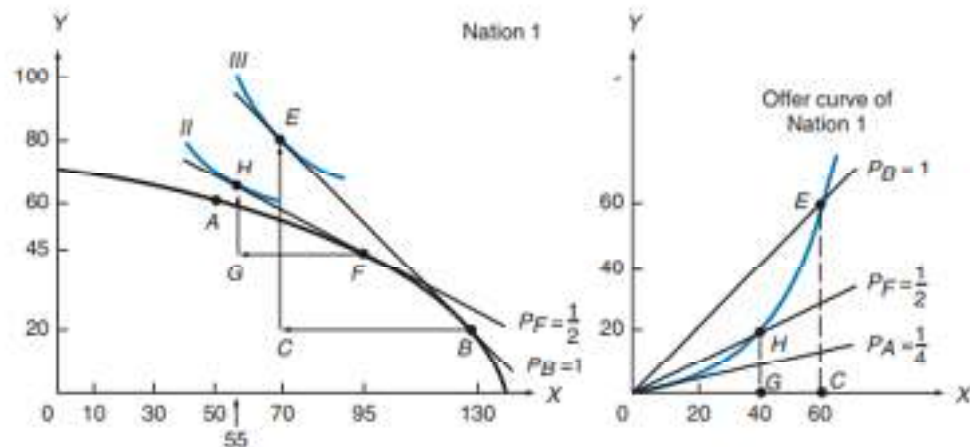
Fig. 4 Derivation of the Offer Curve of Nation 1.

To keep the left panel simple, we omitted the autarky price line P_A = 1/ 4 and indifference curve I tangent to the production frontier and P_A at point A. Note that P_A, P_F , and P_B in the right panel refer to the same P_X /P_Y as P_A, P_F , and P_B in the left panel because they refer to the same absolute slope.

The offer curve of Nation 1 in the right panel of Figure 4 lies above the autarky price line of P_A = 1/ 4 and bulges toward the X-axis, which measures the commodity of its comparative advantage and export. To induce Nation 1 to export more of commodity X, P_X /P_Y must rise. Thus, at P_F = 1/ 2, Nation 1 would export 40X, and at P_B = 1, it would export 60X. There are two reasons for this: (1) Nation 1 incurs increasing opportunity costs in producing more of commodity X (for export), and (2) the more of commodity Y and the less of commodity X that Nation 1 consumes with trade, the more valuable to the nation is a unit of X at the margin compared with a unit of Y

Derivation and Shape of the Offer Curve of Nation 2

In the left panel of Figure 5, Nation 2 starts at the autarky equilibrium point ' , as in Figure 4. If trade takes place at PB'= P_X /P_Y = 1, Nation 2 moves to point B' in production, exchanges 60Y for 60X with Nation 1, and reaches point E' on its indifference curve III' . (So far this is exactly the same as in Figure 4) Trade triangle B' C'E' in the left panel of Figure 5 corresponds to trade triangle O' C' E' in the right panel, and we get point E' on Nation 2's offer curve.

At P_F' = P_X /P_Y = 2 in the left panel, Nation 2 would move instead to point F' in production, exchange 40Y for 20X with Nation 1, and reach point H' on its indifference curve II' . Trade triangle F'G' H' in the left panel corresponds to trade triangle O' G' H ' in the right panel, and we get point H' on Nation 2's offer curve. Joining the origin with points H' and E' and other points similarly obtained, we generate Nation 2's offer curve in the right panel. The offer curve of Nation 2 shows how many imports of commodity X Nation 2 demands to be willing to export various quantities of commodity Y.

Once again, we omitted the autarky price line P_A' = 4 and indifference curve I' tangent to the production frontier and P_A' at point A' . Note that P_A', P_F' , and P_B' in the right panel refer to the same P_X /P_Y as P_A' , P_F' , and P_B' in the left panel because they refer to the same absolute slope.
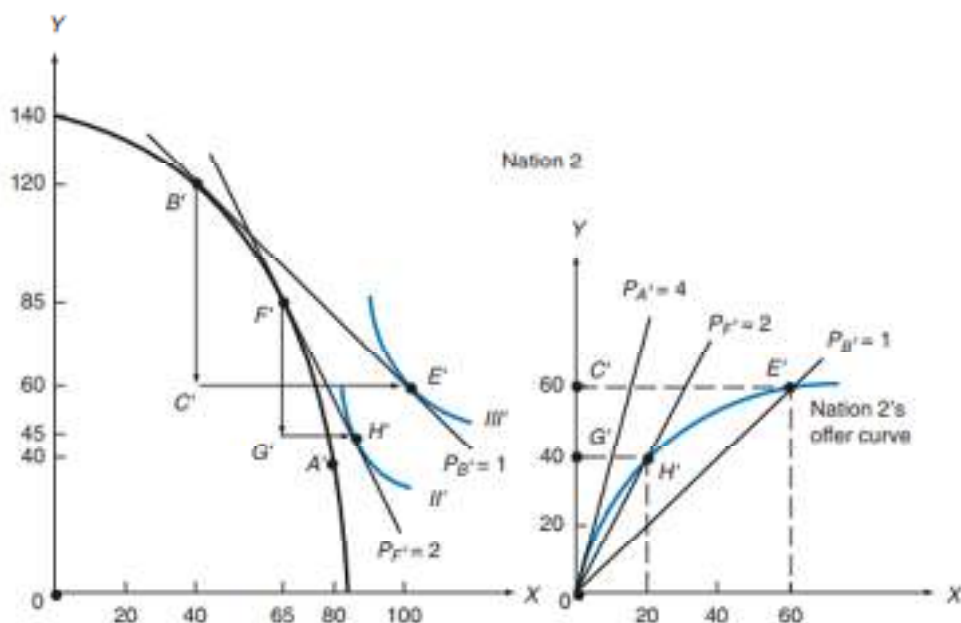
Fig. 5 Derivation of the Offer Curve of Nation 2

The offer curve of Nation 2 in the right panel of Figure 4.4 lies below its autarky price line of $P_A' = 4$ and bulges toward the Y-axis, which measures the commodity of its comparative advantage and export. To induce Nation 2 to export more of commodity, the relative price of Y must rise. This means that its reciprocal (i.e., P_X / P_Y) must fall. Thus, at $P_F' = 2$, Nation 2 would export 40Y, and at $P_B' = 1$, it would export 60Y. Nation 2 requires a higher relative price of Y to be induced to export more of Y because (1) Nation 2 incurs increasing opportunity costs in producing more of commodity Y (for export), and (2) the more of commodity X and the less of commodity Y that Nation 2 consumes with trade, the more valuable to the nation is a unit of Y at the margin compared with a unit of X.

The Equilibrium-Relative Commodity Price with Trade—General Equilibrium Analysis

The intersection of the offer curves of the two nations defines the equilibrium-relative commodity price at which trade takes place between them. Only at this equilibrium price will trade be balanced between the two nations. At any other relative commodity price, the desired quantities of imports and exports of the two commodities would not be equal. This would put pressure on the relative commodity price to move toward its equilibrium level. This is shown in Fig 6.

The offer curves of Nation 1 and Nation 2 in Figure 6 are those derived in Figures 4 and 5. These two offer curves intersect at point E, defining equilibrium $P_X / P_Y = P_B = P_B' = 1$. At P_B, Nation 1 offers 60X for 60Y (point E on Nation 1's offer curve), and Nation 2 offers exactly 60Y for 60X (point E' on Nation 2's offer curve). Thus, trade is in equilibrium at P_B.

At any other P_X / P_Y, trade would not be in equilibrium. For example, at $P_F = 1/2$, the 40X that Nation 1 would export (see point H in Figure 6) would fall short of the imports of commodity X demanded by Nation 2 at this relatively low price of X. (This is given by a point, not shown in Figure 6, where the extended price line P_F crosses the extended offer curve of Nation 2.)

The excess import demand for commodity X at $P_F = 1/2$ by Nation 2 tends to drive P_X / P_Y up. As this occurs, Nation 1 will supply more of commodity X for export (i.e., Nation 1 will move up its offer curve), while Nation 2 will reduce its import demand for commodity X (i.e., Nation 2 will move down its offer curve). This will continue until supply and demand become equal at P_B. The pressure for P_F to move toward PB could also be explained in terms of commodity Y and arises at any other P_X / P_Y, such as $P_F' = P_B$.
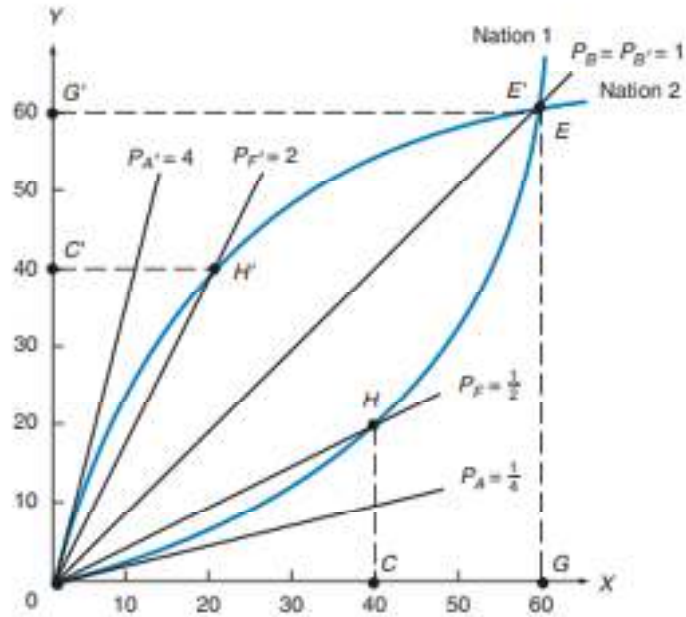
Note that the equilibrium-relative commodity price of $P_B = 1$ with trade (determined in Figure 6 by the intersection of the offer curves of Nation 1 and Nation 2) is identical to that found by trial and error in Figure. At $P_B = 1$, both nations happen to gain equally from trade.

4.5 Terms of Trade

The terms of trade refer to the rate at which the goods of one country exchange for the goods of another country. It is a measure of the purchasing power of exports of a country in terms of its imports, and is expressed as the relation between export prices and import prices of its goods. When the export prices of a country rise relatively to its imports prices, its terms of trade are said to have improved. The country gains from trade because it can have a larger quantity of imports in exchange for a given quantity of exports. On the other hand, when its imports prices rise relatively to its export prices, its terms of trade are said to have worsened. The country's gains from trade is reduced because it can have a smaller quantity of imports in exchange for a given quantity of exports than before.

Jacob Viner and G.M. Meier have discussed many types of terms of trade which we take up one by one.

1. Commodity or net barter terms of trade

    The commodity or net barter terms of trade is the ratio between the price of a country's export goods and import goods. Symbolically, it can be expressed as

    Tc = Px/Pm

    where Tc stands for the commodity terms of trade, P for price, the subscript x for exports and m for imports.

    To measure changes in the commodity terms of trade over a period, the ratio of the change in export prices to the change in import prices is taken. Then the formula for the commodity terms of trade is

    $$Tc = \frac{p_{x_1}}{p_{x_0}} \Big/ \frac{p_{m_1}}{p_{m_0}}$$

    where the subscripts 0 and 1 indicate the base and end periods. Taking 1971 as the base year and expressing India's both export prices and import prices as 100, if we find that by the end of 1981 its index of export prices had fallen to 90 and the index of import prices had risen to 110. The terms of trade had changed as follows

It implies that India's terms of trade declined by about 18 per cent in 1981 as compared with 1971, thereby showing worsening of its terms of trade.

If the index of export prices had risen to 180 and that of import prices to 150, then the terms of trade would be 120. This implies an improvement in the terms of trade by 20 per cent in 1981 over 1971.

The concept of the commodity or net barter terms of trade has been used by economists to measure the gain from international trade. The terms of trade, as determined by the offer curves in the Mill-Marshall analysis, are related to the commodity terms of trade.

Its Limitations

Despite its use as a device for measuring the direction of movement of the gains from trade, this concept has important limitations.

1. Problems of Index Numbers. Usual problems associated with index number in terms of coverage, base year and method of calculation arise.

2. Change in Quality of Product. The commodity terms of trade are based on the index numbers of export and import prices. But they do not take into account changes taking place in the quality and composition of goods entering into trade between two countries. At best, a commodity terms of trade index shows changes in the relative prices of goods exported and imported in the base year. Thus the net barter terms of trade fail to account for large change in the quality of goods that are taking place in the world, as also new goods that are constantly entering in international trade.

3. Problem of Selection of Period. Problem arises in selecting the period over which the terms of trade are studied and compared. If the period is too short, no meaningful change may be found between the base date and the present. On the other hand, if the period is too long, the structure of the country's trade might have changed and the export and import commodity content may not be comparable between the two dates.

4. Causes of Changes in Prices. Another serious difficulty in the commodity terms of trade is that it simply shows changes in export and import prices and not how such prices change. As a matter of fact, there is much qualitative difference when a change in the commodity terms of trade index is caused by a change in export prices relative to import prices as a result of changes in demand for exports abroad, and ways or productivity at home. For instance, the commodity terms of trade index may change by a rise in export prices relative to import prices due to strong demand for exports abroad and wage inflation at home. The commodity terms of trade index does not take into account the effects of such factors.

5. Neglect of Import Capacity. The concept of the commodity terms of trade throws no light on the "capacity to import" of a country. Suppose there is a fall in the commodity terms of trade in India. It means that a given quantity of Indian exports will buy a smaller quantity of imports than before. Along with this trend, the volume of Indian exports also rises, may be as a consequence of the fall in the prices of exports. Operating simultaneously, these two trends may keep India's capacity to import unchanged or even improve it. Thus the commodity terms of trade fails to take into account a country's capacity to import.

6. Ignores Productive Capacity. The commodity terms of trade also ignores a change in the productive efficiency of a country. Suppose the productive efficiency of a country increases. It will lead to a fall in the cost of production and in the prices of its export goods. The fall in the prices of export goods will be reflected in the worsening of its commodity terms of trade. But, in reality, the country will not be worse off than before. Even though a given value of exports will exchange for less imports, the country will be better off. This is because a given volume of exports can now be produced with lesser resources, and the real cost of imports, in terms of resources used in exports, remains unchanged.

7. Not Helpful in Balance of Payment Disequilibrium. The concept of commodity terms of trade is valid if the balance of payments of a country includes only the export and imports of goods and services, and the balance of payments balances in the base and the given years. If the balance of payments also includes unilateral payments or unrequired exports and or/imports, such as gifts,

remittances from and to the other country, etc., leading to disequilibrium in the balance of payments, the commodity terms of trade is not helpful in measuring the gains from trade.

8. Ignores Gains from Trade. The concept of commodity terms of trade fails to explain the distribution of gains from trade between a developed and under-developed country. If the export price index of an underdeveloped country rises more than its import price index, it means an improvement in its terms of trade. But if there is an equivalent rise in profits of foreign investments, there may not be any gain from trade. To overcome this last difficulty, Taussig introduced the concept of the gross barter terms of trade.

2.   Gross Barter Terms of Trade

The gross barter terms of trade is the ratio between the quantities of a country's imports and exports. Symbolically, Tg = Qm/Qx, where Tg stands for the gross terms of trade, Qm for quantities of Imports and Qx for quantities of exports. The higher the ratio between quantities of imports and exports, the better the gross terms of trade. A larger quantity of imports can be had for the same volume of exports.

To measure changes in the gross barter terms of trade over a period, the index number of the quantities of imports and exports in base period and the end period are related to each other. The formula for this is:

$$Tg = \frac{Q_{m_1}}{Qm_0} \Big/ \frac{Qx_1}{Qx_0}$$

Taking 1971 as the base year and expressing India's both quantities of imports and exports as 100, if we find that the index of quantity imports had risen to 160 and that of quantity exports to 120 in 1981, then the gross barter of trade had changed as follows:

$Tg = \frac{160}{100} \Big/ \frac{120}{100} = 133.33$

It implies that there was an improvement in the gross barter terms of trade of India by 33 per cent in 1981 as compared with 1971.

If the quantity of import index had risen by 130 and that of quantity exports by 180, then the gross barter terms of trade would be 72.22.

$Tg = \frac{130}{100} \Big/ \frac{180}{100} = 72.22$

This implies deterioration in the terms of trade by 18 per cent in 1981 over 1971.

When the net barter terms of trade (Tc) equal the gross barter terms of trade (Tg), the country has balance of trade equilibrium. It shows that total receipts from exports of goods equal total payments for import goods.

Numerically: $p_x . Qx = P_m \cdot Qm$

$$\frac{Px}{Pm} = \frac{Qm}{Qx}$$

Its Criticisms

1. Aggregating Goods, Services and Capital Transactions. The concept of gross barter terms of trade has been criticised for lumping together all types of goods and capital payments and receipts as one category in the index numbers of exports and imports. No units are applicable equally to rice and to steel, or to export (or import) of capital and the payment (or receipt) of a grant. It is therefore, not possible to distinguish between the various types of transactions which are lumped together in the index. Haberler, Viner and other economists have, therefore, dismissed this concept as unreal and impracticable as a statistical measure.

2. Ignores Factor Productivity. This concept ignores the effect of improvement in factor productivity on the terms of trade of a country. A country may have unfavourable gross barter terms of trade

due to increase in factor productivity in the export sector. This increased factor productivity, in turn, reflects the gain for the exporting country.

3. Neglects Balance of Payments. The concept of gross barter terms of trade relates to the trade balance and ignores the influence of international capital receipts and payments of a trading country.

4. Ignores Improvements in Production. This concept measures the terms of trade in terms of physical quantities of exports and imports but ignores qualitative improvements in the production of exportable and importable goods.

5. Not True Index of Welfare. An improvement in gross barter terms of trade is regarded as an index of a higher level of welfare from trade. For the country exchanges more importable goods for its exportable goods. But this may not be true if tastes, preferences and habits of the people change so that the country needs less importables which yield greater satisfaction to the people. It will lead to unfavourable gross barter terms of trade but improve welfare.

3. Income Terms of Trade

Dorrance[4] has improved upon the concept of the net barter terms of trade by formulating the concept of the income terms of trade. This index takes into account the volume of exports of a country and its export and import prices (the net barter terms of trade). It shows a country's changing import capacity in relation to changes in its exports. Thus, the income terms of trade is the net barter terms of trade of a country multiplied by its export volume index. It can be expressed as

$$Tc = \frac{p_x}{p_m}$$

where Ty is the income terms of trade, Tc the commodity terms of trade and Qx the export volume index. A.H. Imlah calculates this index by dividing the index of the value of exports by an index of the price of imports. He calls it the "Export Gain from Trade Index

Taking 1971 as the base year, if Px = 140, Pm = 70 and Qx = 80 in 1981, then

P_y= 80*120/160=60

It implies that the income terms of trade have deteriorated by 40 per cent in 1981 as compared with 1971. A rise in the index of income terms of trade implies that a country can import more goods in exchange for its exports. A country's income terms of trade may improve but its commodity terms of trade may deteriorate. Taking the import prices to be constant, if export prices fall, there will be an increase in the sales and value of exports. Thus while the income terms of trade might have improved, the commodity terms of trade might have deteriorated.

The income terms of trade is called the capacity to import. In the long-run, the total value of exports of a country must equal to its total value of imports, i.e., Px.Qx = Pm.Qm or Px.Qx/Pm = Qm. Thus Px.Qx/Pm determines Qm which is the total volume that a country can import. The capacity to import of a country may increase if other things remain the same (i) the price of exports (Px) rises, or (ii) the price of imports (Pm) falls, or (iii) the volume of its exports (Qx) rises. Thus the concept of the income terms of trade is of much practical value for developing countries having low capacity to import.

Its Criticisms

The concept of income terms of trade has been criticised on the following counts:

1. Fails to Measure Gain or Loss from Trade. The index of income terms of trade fails to measure precisely the gain or loss from international trade. When the capacity to import of a country increases, it simply means that it is also exporting more than before. In fact, exports include the real resources of a country which can be used domestically to improve the living standard of its people.

2. Not Related to Total Capacity to Import. The income terms of trade index is related to the export based capacity to import and not to the total capacity to import of a country which also includes its foreign exchange receipts. For example, if the income terms of trade index of a country has deteriorated but its foreign exchange receipts have risen, its capacity to import has actually increased, even though the index shows deterioration.

3. Inferior to Commodity Terms of Trade. Since the index of income terms of trade is based on commodity terms of trade and leads to contradictory results, the concept of the commodity terms of trade is usually used in preference to the income terms of trade concept for measuring the gain from international trade.

4. Single Factoral Terms of Trade

The concept of commodity terms of trade does not take account of productivity changes in export industries. Prof. Viner had developed the concept of single factoral terms of trade which allows changes in the domestic export sector. It is calculated by multiplying the commodity terms of trade index by an index of productivity changes in domestic export industries. It can be expressed as :

$T_S = T_C * F_X = P_X * F_X / P_M$

where Ts is the single factoral terms of trade, Tc is the commodity terms of trade, and Fx is the productivity index of export industries. It shows that a country's factoral terms of trade improve as productivity improves in its export industries. If the productivity of a country's exports industries increases, its factoral terms of trade may improve even though its commodity terms of trade may deteriorate. For example, the prices of its exports may fall relatively to its import prices as a result of increase in the productivity of the export industries of a country. The commodity terms of trade will deteriorate but its factoral terms of trade will show an improvement.

Its Limitations.

This index is not free from certain limitations. It is difficult to obtain the necessary data to compute a productivity index. Further, the single factoral terms of trade do not take into account the potential domestic cost of production of imports industries in the other country.

To overcome this weakness, Viner formulated the double factoral terms of trade.

5. Double Factoral Terms of Trade

The double factoral terms of trade take into account productivity changes both in the domestic export sector and the foreign export sector producing the country's imports. The index measuring the double factoral terms of trade can be expressed as

$T_d = T_c * F_X / F_M = P_X / F_M * F_X / F_M$

where Td is the double factoral terms of trade, Px/Pm is the commodity terms of trade, Fx is the export productivity index, and Fm is the import productivity index.

It helps in measuring the change in the rate of exchange of a country as a result of the change in the productive efficiency of domestic factors manufacturing exports and that of foreign factors manufacturing imports for that country. A rise in the index of double factoral terms of trade of a country means that the productive efficiency of the factors producing exports has increased relatively to the factors producing imports in the other country.

Its Criticisms

1. Not Possible to Construct a Double Factoral Terms of Trade Index. In practice, however, it is not possible to calculate an index of double factoral terms of trade of a country. Prof. Devons6 made some calculations of changes in the single factoral terms of trade of England between 1948-53. But it has not been possible to construct a double factoral terms of trade index of any country because it involves measuring and comparing productivity changes in the import industries of the other country with that of the domestic export industries.

2. Required Quantity of Productive Factors not Important. Moreover, the important thing is the quantity of commodities that can be imported with a given quantity of exports rather than the quantity of productive factors required in a foreign country to produce its imports.

3. No Difference Between the Double Factoral Terms of Trade and the Commodity Terms of Trade. Again, if there are constant returns to scale in manufacturing and no transport costs are involved, there is no difference between the double factoral terms of trade and the commodity terms of trade of a country.

4. Single Factoral Terms of Trade is more Relevant Concept. According to Kindleberger, "The single factoral terms of trade is a much more relevant concept than the double factoral. We are interested in what our factor can earn in goods, not what factor services can command in the services of foreign factors. Related to productivity abroad moreover, is a question of the quality of the goods imported.

6. Real Cost Terms of Trade

Viner has also developed a terms of trade index to measure the real gain from international trade. He calls it the real cost terms to trade index. This index is calculated by multiplying the single factoral terms of trade with the reciprocal of an index of the amount of disutility per unit of productive resources used in producing export commodities. It can be expressed as

Tr=Ts*Rx=Px/Pm*Fx*Rx

where Tr is the real cost terms of trade, Ts is the single factoral terms of trade and Rx is the index of the amount of disutility per unit of productive resources used in producing export commodities.

Its Criticisms

A favourable real cost terms of trade index (Tr) shows that the amount of imports received is greater in terms of the real cost involved in producing export commodities. But this index fails to measure the real cost involved in the form of goods produced for export which could be used for domestic consumption to pay for imports. To overcome this problem. Viner develops the index of utility terms of trade.

7. Utility Terms of Trade

The utility terms of trade index measures "changes in the disutility of producing a unit of exports and changes in the relative satisfactions yielded by imports, and the domestic products foregone as the result of export production." In other words, it is an index of the relative utility of imports and domestic commodities forgone to produce exports. The utility terms of trade index is calculated by multiplying the real cost terms of trade index with an index of the relative average utility of imports and of domestic commodities foregone. If we denote the average utility by u and the domestic commodities whose consumption is foregone to use resources for export production by a, then $U = \dfrac{U_{m_1}}{U_{n_1}}\bigg|\dfrac{U_{m_0}}{U_{n_0}}$ where u is the index of relative utility of imports and domestically foregone commodities. Thus, the utility terms of trade index can be expressed as:

Tu=Tr.u=P_X/P_m*F_X.R_X.u

Since the real terms of trade index and utility terms of trade index involve the measurement of disutility in terms of pain, irksomeness and sacrifice, they are elusive concepts. As a matter of fact, it is not possible to measure disutility (for utility) in concrete terms.

Its Criticisms

Hence like the single and double factoral terms of trade concepts, the concepts of real and utility terms of trade are of little practical use. They are only of academic interest. That is why the concepts of the commodity terms of trade and of income terms of trade have been used in measuring the gains from international trade in developed as well as developing countries.

Factors Affecting Terms of Trade

1. Reciprocal Demand and Supply. The TOT of a country depends upon reciprocal demand and supply, i.e. the strength and elasticity of each country's demand and supply of exports and imports. When the demand for exports of a country is less elastic as compared to its imports, its TOT will be favourable. For its exports will fetch a higher price than its imports. On the other hand, if the demand for its imports is less elastic than its exports, its TOT will be

unfavourable because it will have to pay a higher price for its imports. If the supply of its exports is more elastic than its imports, its TOT will be unfavourable because it can increase or decrease the supply of its exports in keeping with international market conditions. The opposite will be the case when the supply of exports is less elastic. So the TOT will be favourable.

2. Change in Demand. The TOT are also influenced by the size of demand for exports and imports of a country. Other factors remaining the same, if the demand for exports increases, it will raise the prices of exportables as against the prices of importables. The TOT will be favourable. On the other hand, if the demand for importables increases, their prices will rise as against the prices of importables, thereby worsening the TOT exportable.

3. Changes in Factor Endowments. The TOT of a country are influenced by changes in its factor endowments. With given tastes and technology, if the increase in factor supply is related to export industries, it will lead to the production of more of export goods and less of import goods. As a result, the TOT will worsen because exports of more goods will bid down their prices in world markets. Conversely, if the growth of factors produces more of import competing goods, the TOT will improve. For the demand for imports goods will fall which will bid down their relative prices in world markets.

4. Changes in Technology. Technological changes also affect the TOT of a country. If the technological changes lead to the production of more export goods, their supply will increase, prices will fall relative to its imports. It will export more than it imports. Therefore, its TOT will be unfavourable. On the contrary, if it leads to the production of more import-competing goods, its volume of world trade will be less and its TOT will improve.

5. Change in Tastes. Changes in tastes of the people of a country influence its TOT with another country. If the tastes for the products of another country increase, it leads to increase in the demand for the imported goods. Consequently, the TOT will become unfavourable, and vice versa.

6. Economic Growth. Another factor is economic growth which increases the country's productive capacity, welfare and income, given the tastes and technology. Economic growth affects TOT in two ways. The first is the demand effects which increases the demand for imports as a result of increase in per capita income with economic growth. The second is the supply effect which increases the supply of exportables and import-competing goods. It is the net effect of these two effects which ultimately determines the TOT of a country. If the demand effect is more powerful than the supply effect and the volume of trade increases through imports, its TOT will be unfavourable. On the other hand, if the supply effect is more powerful than the demand effect, and the country's trade volume increases through rise in exports and import-competing goods, its TOT will improve.

7. Tariffs. An import tariff improves the TOT of the tariff-imposing country. As a result of the imposition of tariff duties, imports will be reduced in relation to exports and its TOT will improve.

8. Quotas. Fixation of quotas also reduces imports and thus improves the TOT of the country fixing quotas.

9. Devaluation. By devaluation is meant a reduction of the value of domestic currency in terms of the foreign currencies. Devaluation makes imports costlier and exports cheaper in foreign markets. Thus it reduces imports and increases exports and makes the TOT favourable for the devaluing country. But the elasticities of demand and supply of exports and imports determine deterioration or improvement in its terms of trade. If both the foreign demand for

exports and home demand for imports are highly inelastic to price movements, devaluation leads to an improvement in the terms of trade, and vice versa.

10. Market Conditions. A country which has got monopoly or oligopoly in the goods which it exports in the world market, but its import market is competitive, its TOT will be favourable. For it will sell its goods at a high price in the world market. If a few countries are oligopolistic and form a cartel, such as oil producing countries, they can raise the price of oil by reducing its supply. So their TOT will improve.

11. Import Substitutes. If the country produces import-substitute goods in sufficient quantities, its import demand for such goods will be low. As a result, it will import less and its TOT will be favourable, and vice versa.

12. International Capital Flows. An inflow of capital from abroad in the form of capital and other goods reduces the demand for home products and exportables. As a result the prices of exportables fall relative to importables, thereby worsening the TOT of the country. On the other hand, when there is an outflow of capital to repay the debt in the form of larger exports, their prices fall which again make the TOT unfavourable for the country.

13. Balance of Payments. Deficit in BOP brings improvement in TOT because the exchange rate falls. On the other hand, a surplus in BOP worsens the TOT by raising the exchange rate of the currency. 14. Inflation and Deflation. Inflation worsens the TOT because with the rise in domestic prices On the other hand, deflation improves the TOT because the prices of domestic goods fall, the demand for exports increases and for imports falls.

<u>Summary</u>

In this chapter, we derived the demand for imports and the supply of exports of the traded commodity, as well as the offer curves for the two nations, and used them to determine the equilibrium volume of trade and the equilibrium-relative commodity price at which trade takes place between the two nations. process of trial and error.

- The excess supply of a commodity above the no-trade equilibrium price gives one nation's export supply of the commodity. On the other hand, the excess demand of a commodity below the no-trade equilibrium price gives the other nation's import demand for the commodity. The intersection of the demand curve for imports and the supply curve for exports of the commodity defines the partial equilibrium-relative price and quantity of the commodity at which trade takes place.

- The offer curve of a nation shows how much of its import commodity the nation demands to be willing to supply various amounts of its export commodity. The offer curve of a nation can be derived from its production frontier, its indifference map, and the various relative commodity prices at which trade could take place. The offer curve of each nation bends toward the axis measuring the commodity of its comparative advantage. The offer curves of two nations will lie between their pretrade, or autarky, relative commodity prices. To induce a nation to export more of a commodity, the relative price of the commodity must rise.

- The terms of trade of a nation are defined as the ratio of the price of its export commodity to the price of its import commodity. The terms of trade of the trade partner are then equal to the inverse, or reciprocal, of the terms of trade of the other nation. With more than two commodities traded, we use the index of export to import prices and multiply by 100 to express the terms of trade in percentages. Our trade model is a general equilibrium model except for the fact that it deals with only two nations, two commodities, and two factors.

Keywords

1. Net Barter TOT : The terms of trade index measures the relative prices of a country's exports and imports.
2. Offer curves: The offer curve shows all pairs of imports and exports implied by the production possibilities of an economy and the indifference curves.
3. Terms of Trade: Terms of trade are defined as the ratio between the index of export prices and the index of import prices.
4. Mill;s Doctrine: By reciprocal demand, Mill meant the quantities of exports that a country would offer at different terms of trade, in return of varying quantities of imports.
5. Gross Barter Terms of Trade: The gross barter terms of trade is the ratio between the quantities of a country's imports and exports

Self Assessment

1. An offer curve _____
A. Differs from usual demand curve only
B. Differs from usual supply curve only
C. same as usual demand curve
D. Differs from both demand and supply curves

2. Graphical representation of reciprocal demand is referred to as_____
A. Offer curve,
B. Demand curve,
C. Supply curves,
D. Contract curve

3. The terms of trade measure ?
A. The income of one country compared to another
B. The GDP of one country compared to another
C. The quantity of exports of one country compared to another
D. Export prices compared to import prices

4. Terms of trade of developing countries are generally unfavourable because:
A. They export primary goods
B. They import value added goods
C. They export few goods
D. (a) and (b) of above

1. Terms of trade are expressed as a ratio of .
A. price index of exports and imports,
B.   foreign exchange receipts and
C. payments, FDI and portfolio investments,
D.   none of the above

2. Terms of trade are favourable if the current index in comparison to the base year index is .

    A. less

B. more

C. equal

D. none of the above

7. Income terms of trade indicate increased capacity to .

A. import,

B. export

C. investment

D. none of the above

8. Generally, the developing countries terms of trade.

A. suffer from adverse,

B. enjoy favourable,

C. ignore,

D. none of the above

9. The gain from trade is maximum if the international terms of trade are .

A. nearer to the internal terms of trade of trading partner,

B. nearer to the domestic terms of trade of importing country,

C. equal to exporting country,

D. none of the above.

10. The concept of reciprocal demand was introduced by .

A. J. S. Mill,

B. J. M. Keynes,

C. G. S. Dorrance,

D. F.W. Taussig)

11. A country will have unfavourable terms of trade when .

A. exports have elastic supply,

B. imports have elastic demand,

C. imports have inelastic demand,

D. none of the above

12. Utility terms of trade was introduced by .

A. Adam Smith,

B. Jacob Viner,

C. J. S. Mill,

D. Frank Taussig

13. The concept of gross barter terms of trade was introduced by .

A. Frank Taussig,
B. Alfred Marshall,
C. Francis Edgeworth,
D. John S. Mill

14. The offer curve of a country is based on .

A. price of imports,
B. supply of exports
C. relative prices of two commodities,
D. price of exports

15. Reciprocal demand is expressed in terms of .

A. Offer curves,
B. supply curves,
C. demand curves,
D. cost curves

Answers for Self Assessment

l.	D	2.	A	3.	D	4.	D	5.	A
6.	B	7.	A	8.	A	9.	A	10.	A
11.	C	12.	A	13.	A	14.	C	15.	A

Review Questions

1. What do offer curves show? How are they derived? What is their shape? What explains their shape?
2. What do the terms of trade measure? What is the relationship between the terms of trade in a world of two trading nations? How are the terms of trade measured in a world of more than two traded commodities?
3. In what way is a nation's offer curve similar to:
     (a) a demand curve?
     (b) a supply curve?
     In what way is the offer curve different from the usual demand and supply curves?
4. To show how nations can share unequally in the benefits from trade:
     (a) Sketch a figure showing the offer curve of a nation having a much greater curvature than the offer curve of its trade partner.
     (b) Which nation gains more from trade, the nation with the greater offer curve or the one with the lesser curvature?
     (c) Can you explain why?

5. Distinguish between Gross Barter Terms of Trade and Barter Terms of Trade or Income Terms of Trade and Net Barter Terms of Trade.

6. What do you mean by Terms of Trade? Explain the determination of equilibrium terms of trade.

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Unit 05: Problems of Trade in Primary Commodities

Objectives

- To study the secular deterioration in commodity terms of trade for Less Developing countries LDCs.
- To explore the empirical regularities of Prebisch-Singer hypothesis in LDCs
- To critically evaluate the Prebisch-Singer hypothesis in LDCs
- To study the actions taken by developing countries in order to turn the price trends in their favor i.e. OPEC cartels
- To study the factors leading to erosion of cartel power
- To study the import-substitution industrialization ISI in response.

Introduction

There have been many significant studies that throw light on the relative contribution of the different sectors of the economy on the nation's foreign trade. Empirical evidence suggest that the terms of trade (TOT) have been continuously moving against the developing countries. Based on the exports statistics of the United Kingdom between 1870 and 1940, Raul Prebisch demonstrated that the terms of trade of UK revealed a secular tendency to move against the primary products and in favor of the manufactured and capital goods. Later, H. W. Singer also made significant contribution to this theory and hence came to be known as Prebisch-Singer hypothesis.

The practical implication of Prebisch-Singer thesis is that the peripheral or LDC's had to export large amounts of their primary products in order to import manufactured goods from the industrially advanced countries. Thus, the Prebisch–Singer hypothesis (also called the Prebisch–Singer thesis) holds the viewpoint that the price of primary commodities declines relative to the price of manufactured goods over the long term, which causes the terms of trade of primary-product-based economies to deteriorate over the period of time. This deterioration of commodity terms of trade has been a major factor limiting the growth of the LDC's.

5.1   Assumptions of the Prebisch-Singer Hypothesis

The main assumptions in the Prebisch-Singer thesis are as under:

(a) As income rises in the advanced countries, the pattern of demand shifts from primary products to the manufactured products due to Engel's law.

(b) There is slow rise in demand for products in the developed countries.

(c) The export market for products of LDC's is competitive.

(d) The export market for products of developed countries is monopolistic in nature.

(e) Wages and prices are low in LDC's.

(f) The appearance of substitutes for the products produced by LDCs reduces demand for them.

(g) The benefit of increased productivity is not passed by the producers of manufactured products in advanced countries to the LDC's through lower prices.

(h) The economic growth in the LDC's is indicated by income terms of trade.

5.2   Basic Concept of Prebisch-Singer Hypothesis

The Prebisch-Singer hypothesis maintains that there has been technical progress in the advanced countries, the fruit of which have not percolated to the LDC's. In addition, the industrialized countries have maintained a monopoly control over the production of industrial goods. They could manipulate the prices of manufactured goods in their favor and against the interest of the LDC's.

Though OPEC countries were successful in raising the prices of crude oil since mid-1970's, but there has been a relative decline in the international prices of other commodities i.e. farm and plantation products, minerals and forest products. Consequently, the terms of trade were not in favor of the developing countries.

Significantly, Singer pointed out that the rising debt of the LDCs became another twist to the hypothesis of secular deterioration of terms of trade for them in two ways. Firstly, a high proportion of proceeds from exports are not available for imports. This limits the import capability of the LDCs. Secondly, there has been an increased pressure upon the less developed countries to raise exports so that it becomes possible to repay external debts on account of IMF-induced adjustment polices. This pressure make the debt- ridden less developed countries to compete with other poor countries to enlarge their export earnings. It results in decline in the prices of export products of these countries. Thus, the Prebisch-Singer hypothesis examines the trend in primary commodity prices relative to manufactured goods prices and holds the view that such prices present a downward secular trend. This is important because many developing countries rely on a small number of primary commodities to generate the major chunk of their export earnings.

Another significant theoretical implication of this theory is that the declining relative commodity prices include a low income elasticity of demand for primary commodities(Engel's Law), lack of differentiation among commodity producers which leads to highly competitive markets, productivity differentials between industrial economies and commodity-producing economies and asymmetric market structure (where manufacturing industries capture oligopolistic rents relative to competitive firms earning zero economic profits and producing primary commodities).

Economic analysis shows that there are at least two major factors depressing the prices of primary products whereas the other two lead to rise in the rise in the price of primary commodities relative to manufactures.

The relative price of primary products is depressed by Engel's law and synthetic substitutes

1. **Engel's laws**
   In the long run, per capita income rise, demand shifts toward luxuries-goods for which the income elasticity of demand (ratio of percentage rise in quantity demanded to a percentage rise in income causing the change in demand) is greater than 1. At the same time, the world's demand shifts away from staples- (these are goods for which the income elasticity of demand is less than 1) The 19th-century German economist Ernst Engel discovered what is known as Engel's law: The income elasticity of demand for food is less than 1 (i.e. food is a staple). Engel's law is the most durable law in economics that does not follow from definitions or axioms. It means trouble for food producers in a prospering world. If the world's supply

expanded at the exact same rate for all products, the relative price or foods would go on dropping because Engel's law says that demand would keep shifting (relatively) away from food toward luxuries.

2. **Synthetic substitutes**.

   Another factor for relatively lower prices of primary products is the development of new human-made substitutes for these natural materials. The more technology advances, the more we are likely to discover ways to replace minerals and other raw materials. The most dramatic case is the development of synthetic rubber around the time of World War I, which ruined the incomes of rubber producers in Brazil, Malaysia, and other countries. Another case is the development of synthetic fibers, which have lowered demand for cotton ad wool.

On the other hand, two other basic forces tend to raise the relative prices of primary products:

1. **Nature's limits**

   Primary products mainly utilize land, water, mineral deposits, and other limited natural resources. As population and incomes expand, the natural inputs become increasingly scarcer, other things being equal. The scarcity of these natural products eventually raises the relative price of primary products(as it is the primary products which use natural resources more intensively than do manufactures).

2. **Relatively slow productivity growth in the primary sector.**

   For several centuries, productivity has advanced more slowly in agriculture, mining and other primary sectors than in manufacturing. A reason is the tendency for cost-cutting breakthroughs in knowledge to be more important in manufacturing than in primaries (though exceptions to this rule are increasingly frequent in the age of biotechnology). Slow productivity advance translates into a slower relative advance of supply curves in primary-product markets than in manufacturing markets, and therefore a rising relative price of primaries (or a falling relative price of manufactures), other things being equal. So we have two tendencies that depress the relative price of primary products, and we have two that raise it. How does the tug-of-war work out in the long run? Figure 142 summarizes the experience since 1900.

The Prebsich-Singer hypothesis also made the case of import substitution growth strategies for the developing economies. We shall explain this in the next section.

The Prebisch-Singer Hypothesis of Unequal Distribution of Gains: Graphical Explanation

As we have already discussed, the Prebisch-Singer hypothesis normally refers to the claim that the relative price of primary commodities compared to manufactures shows a downward trend. However, as noted earlier, Prebisch and Singer were concerned about the more general issue of a rising per capita income gap between industrialized and developing countries and its relationship to international trade (As differences in the trade policy might account for differences in per capita income of developed and developing countries). They argued that international specialization along the lines of "static" comparative advantage had excluded developing countries from the fruits of technical progress that had so enriched the industrialized world.

Prebisch and Singer primarily based their argument on three stylized facts: first, the developing countries were indeed highly specialized in the production and export of primary commodities. Second, that technical progress was concentrated mainly in industry. Third, the relative price of primary commodities in terms of manufactures had fallen steadily since the late 19th Century. Together these facts suggested that, because of their specialization in primary commodities, developing countries had obtained little benefit from industrial technical progress, either directly, through higher productivity, or indirectly, through improved terms of trade.

 This has been explained with the help of Figure 4.1. Figure 4.1 offers a simple model of the world market for two goods, primary commodities and manufactured commodities.

Figure 4.1: World Market for Primary Commodities vis-à-vis Manufactured Commodities
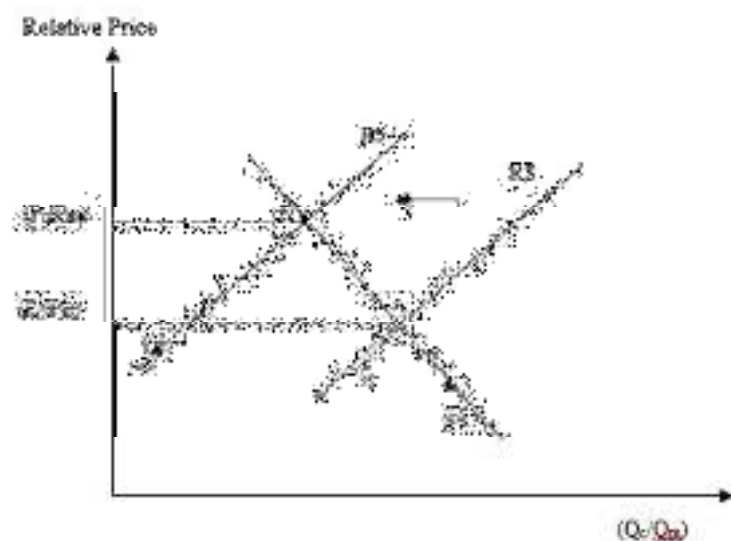
In Figure 4.1, relative price of primary commodities in terms of manufacture commodities (Pc/Pm) has been shown on the vertical axis (Y axis). On the other hand, the horizontal axis (X-axis) shows relative quantities, i.e., the total quantity of commodities sold on the world market divided by the total quantity manufactures. The intersection of the relative demand (RD) and relative supply (RS) schedules determines the world market equilibrium.

Now, if technical progress in the manufacturing sector exceeds that of the primary sector (as Prebisch and Singer supposed), then we should see the supply of manufactures growing faster than the supply of primary commodities. This can be shown as the corresponding decline of primary commodities vis-a-vis relative supply of manufactured commodities. The shift of the RS curve towards leftwards, i.e. from RS to RS/ represents this point. The result would be a shift in the equilibrium from point A to point B which also shows an increase in the relative price of primary commodities. This relative price change would constitute an improvement in the terms of trade of commodity exporters (which Prebisch and Singer supposed were developing countries). This situation is essentially same as Ricardian analysis, which shows that technical progress in industrialized countries translates into welfare gains for developing countries.

It should be noted that the main argument of Prebish and Singer is that the above situation does not practically exist: instead of rising, the relative price of commodities in terms of manufactures had actually fallen. Prebisch and Singer arrived at this conclusion after analysing the net barter terms of trade—the relative price of exports to imports—of the United Kingdom from 1876 to 1947. The inverse of this was taken to be a proxy for the relative price of primary commodities to manufactured commodities.

Prebish and Singer also offered theoretical explanation as why the downward trend had occurred and why it was likely to continue. Let us consider Figure 4.1 to explain this. According to Prebish and Singer, there are essentially two reasons why primary commodities might experience declining relative prices, despite their lagging technology. First, something else may prevent the relative supply schedule from shifting to the left or even cause it to shift to the right. In case the latter happens, i.e., in case the RS schedule shifts to the left to RS/, it would result in equilibrium at point D, with a lower relative commodity price. The second possibility is that something causes the relative demand schedule to shift to the left along with relative supply. If the shift in RD is greater than that of RS, the result would be an equilibrium like point C, again with a lower relative commodity price.

It should be noted here that over these two alternative explanations for the decline in commodity prices, one involving supply, the other demand, Prebisch and Singer parted company with each other. Prebisch primarily focused on the supply side while Singer laid more emphasis on the demand side.

Prebisch offered a supply side theory, based on asymmetries between industrial and developing countries and Keynesian nominal rigidities. The idea was that strong labor unions in industrialized countries caused wages in manufacturing to ratchet upwards with each business cycle, because wages rise during upswings but are sticky during downswings. This, in turn, ratchets up the cost of

manufactured commodities. Prebisch argued that in developing countries, weak unions fail to obtain the same wage increases during upswings and cannot prevent wage cuts during downswings. Thus, the cost of primary commodities rises by less than manufactures during upswings and falls by more during downswings, creating a continuous decline in the relative cost of primary commodities, i.e., rightward movement in the relative supply schedule.

On the other hand, Singer focused more on the demand side, considering mainly price and income elasticity's. According to Singer, monopoly power in manufactured commodities prevented the technical progress in that sector from lowering prices, i.e., preventing the leftward shift in RS, much like the argument of Prebisch. However, Singer also argued that the demand for primary commodities showed relatively low income elasticity, so income growth tended to lower the relative demand for, and hence relative price of, primary commodities. Moreover, he argued that technical progress in manufacturing tended to be raw-material saving (e.g., synthetics), thereby causing the demand for primary products to grow slower than for manufactured commodities. Both of these arguments would be reflected in a leftward shift in RD in as shown in Figure 4.1.

Finally, Prebisch and Singer drew policy implications from what they had found. Both argued that as the way out of their dilemma, developing countries should foster industrialization. While they did not directly advocate protectionism, it is clear that they had in mind to change the pattern of comparative advantage. Thus, whether intentionally or not, Prebisch and Singer provided intellectual support for the import substitution policies that prevailed in many developing countries through the 1970s.

Empirical Evidence of The Prebisch-Singer Hypothesis: Insights from various studies

Empirical testing of the Prebisch-Singer hypothesis suggests mixed outcome. For example, studies made by Morgan, Ellsworth, Haberler, Kindel berger and Lipsey did not support the deterioration of terms of trade hypothesis. Lipsey has observed, "Although there have been very large swings in U.S. terms of trade since 1879, no long-term trend has emerged. The average level of U.S. terms of trade since World War II has been almost the same as before World War I."

However, a number of more recent empirical studies have, in fact, gone in favor of this hypothesis. For example, the studies made by UNCTAD for 1950-61 and 1960-73 showed that there was a relative decline in the terms of trade of LDC's vis-a-vis the developed countries. Another study made by Thirlwall and Bergevin for the period 1973-82 indicated that there was an annual decline of terms of trade of LDC's for all the primary commodity exports at the rate of 0.36 percent.

Similarly, on the basis of a study related to exports of manufactured products for LDC's to the advanced countries during 1970-87 period, Singer and Sarkar found that the terms of trade of less developed countries declined by about 1 percent per annum. Even the World Development Report recognized that the world prices of primary products declined sharply during I980's and the terms of trade of LDC's deteriorated during 1980-93 period. The UNDP's Human Development Report for the year 1997 also found that the terms of trade for the LDCs declined by a cumulative 50 percent over the past 25 years.

Another significant study undertaken by the South Commission found that in comparison to 1980, the terms of trade of developing countries had deteriorated by 29 percent in 1988. The average real price of non-oil commodities had declined by 25 percent during 1980-88 period compared with the previous two decades. The terms of trade of non-oil developing countries had deteriorated during 1980-88 period by 8 percent compared with 1960's and 13 percent compared with 1970's.

International Cartels to Raise Primary Product Prices

History records many attempts at international cartels (international agreements to restrict competition among sellers). In the world history, the greatest seizure of monopoly power was the price-raising triumph of the Organization of Petroleum Exporting Countries (OPEC) in 1973-1974 and again in 1979-1980.

OPEC Oil cartel and its Victory

A chain of events in late 1973 revolutionized the world oil economy. Within a short span of time of few months, the 13 members of OPEC effectively quadrupled the dollar price of crude oil, from $2.59 to $11.65 a barrel. Oil-exporting countries became rich almost overnight. Whereas the industrial oil-consuming countries started facing their deepest depression since the 1930s. The

relative price of oil (what the price of a barrel of oil could buy in terms of manufactured exports from industrial nations) tripled.

The sequel was a plateau of OPEC prosperity, a further jump, and finally growing signs of weakness From 1974 to 1978, the relative price of oil dipped by about a sixth, but stayed much higher than it had been at any time before 1973. Next came the second wave of OPEC price hikes, the second "oil shock" in 1979-1980. Led by the Iranian Revolution and growing panic among oil buyers, the relative oil price more than doubled. In the mid-1980s, however, OPEC weakened. The relative price of oil dropped suddenly in late 1985, from four to five times the old (pre-1973) real price in1980-1984 to less than two times the old price for 1986-1989.

The tale of oil and OPEC in the 1970s and 1980s is one of two dramatic cartel victories and a subsequent retreat. The victories and the retreat both need explanation. First the victories. The oil shocks of 1973-1974 and 1979-1980 were not the result of a failure of supply or exhaustion of earth's available resources. The world's "proved reserves" of known and usable oil have grown even faster than world oil consumption. Nor were the costs of oil extraction rising much at that time.

The oil price jumps of 1973-1974 and 1979-1980 were human-made. The key was that world demand was growing far faster than non-OPEC supplies. Postwar oil discoveries have been very unevenly distributed among countries. The share of OPEC countries in world crude oil production increased to over 0.50 percent by 1972. By the early 1970s, the united States US for the first time becoming vulnerable to pressure from oil exporting countries. Largely immune to oil threats in earlier Middle East crises, the United States found that it imported around third of its oil consumption, and the part of it coming from Arab countries, by 1973. With their growing importance in world oil production, and with growing reliance on oil imports, OPEC countries were able to create a scramble among buyers to pay higher prices for oil in 1973 and then in 1979.

Classic Monopoly as an Extreme Model for Cartels

How big could the cartel opportunity be? That is, if a group of nations or firms were to form a cartel as OPEC did, what is the greatest amount of gain they could reap the expense of their buyers and world efficiency? If all of the cartel members could agree on simply maximizing their collective gain, they would behave as though they were a perfectly unified profit-maximizing monopolist. Because a commodity like oil is fungible, they would probably not be able to discriminate by setting different prices to different foreign buyers (except for standard distinctions by quality that we can safely ignore here). The cartel members acting as a monopoly would try to find the price level that would maximize the gap between their total export sales revenue and their total costs of producing exports. When cutting output back to the level of demand yielded by their optimal price, they would take care to shut down their most costly production units (e.g., oil wells) and keep in operation only those with the lowest operating costs. Figure 4.2 below shows the diagrammatical representation of cartel as a profit-maximizing monopoly
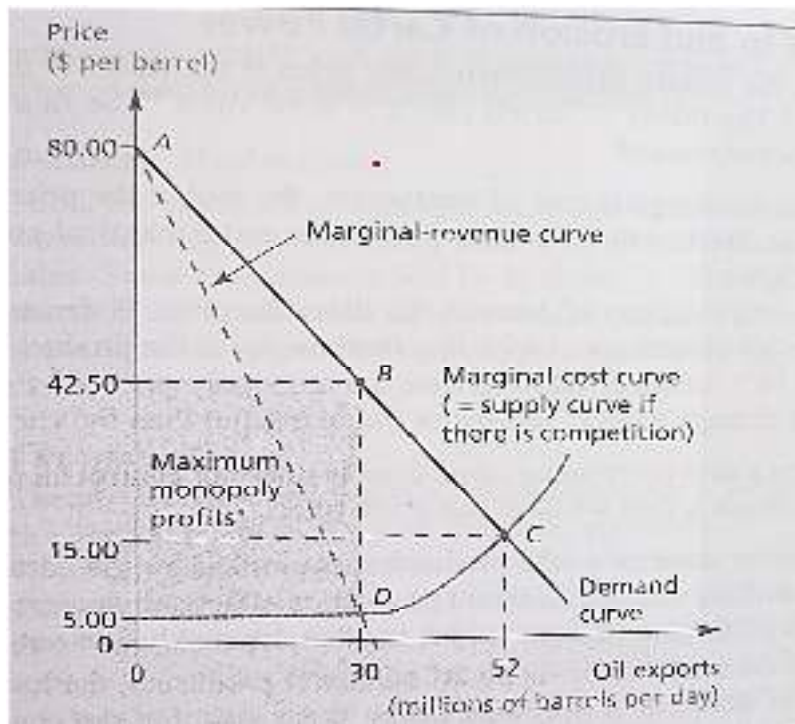
Figure 4.2 shows a monopoly or cartel that has managed to extract maximum profits from its buyers. To understand what price and output yield that highest level of profits, and what limits those profits, we must first understand that the optimal price lies above the price that perfect competition would yield yet below the price that would discourage all sales.

If perfect competition reigned in the world oil market, the marginal-cost MC curve in Figure 4.2 would also be the supply curve for oil exports. Competitive equilibrium would be established at point C, where the marginal cost of extra oil exports has risen to meet $15, the amount that the extra oil is worth to buyers (as shown by the demand curve).

The cartel members want to set a price which is higher than the competitive price, but their pricing power is limited by the negative slope of the demand curve for the cartel's product. This point is well evident, if the extreme case of a prohibitive price markup is considered. If the cartel was foolish enough to push the price to $80 a barrel in Figure 4.2, it would lose all of its export business, as shown at point A (At this price of $80, the demand for cartel's product would simply fall to zero).The handsome markup to $80 would be worthless, since no one will be paying it to the cartel. Thus, the cartel's best price must be well below the prohibitive price($80 a barrel).

The cartel members could find its most profitable price by using the model of monopoly: The highest possible profits are corresponding to that level of sales where the marginal-revenue curve intersects the marginal-cost curve. These maximum profits would be reaped at point B in Figure 4.2, with a price set at $42.50 a barrel, yielding 30 million barrels of export sales a day and monopoly profits of(542.50 - $5) × 30 million barrels = $1125 million a day. If the cartel had not been formed, competition would have limited the profits of its members to the area below the $15 price line and above the marginal-cost curve. Given the demand curve and the marginal-cost curve the profit gained by pushing price and quantity to point B is the best the cartel can do.

The cartel price that is optimal for its members is not optimal for the world. of course. For the 30 million barrels per day, the extra cartel profits above the $15 price line are just a redistribution of income from buying countries to the cartel, with no net gain or loss for the world. However, the cartel causes net world losses by curtailing oil exports that would be worth more to buyers around the world than those exports cost the cartel members themselves to produce. The world net loss from the cartel is represented in Figure 4.2 by the area BCD (which would equal about $412.5 million a day, as drawn in Figure). This area shows that what the cartel is costing the world as a whole is the gap between what buyers would have willingly paid for the extra 22 million barrels a day, as shown by the height of the demand curve, and the height of the marginal-cost curve between 30 million barrels and 52 million barrels.

Factors leading to erosion of cartel power

How high is the cartel's profit maximizing price if the cartel is functioning at full effectiveness? The theory of cartel provides some rules. The first two rules follow from monopoly model

- The higher the marginal cost of production, the higher the price. In Figure 4.2, consider the effect on monopoly price if the entire marginal-cost curve is higher than that shown.
- The higher the elasticity of demand, the lower the price. If the demand is elastic, buyers easily find other ways of spending their money if the product price rises much. In Figure 4.2, consider the effect on the monopoly price of a different demand curve, one through point C and flatter (more elastic) than the curve shown.

However, even a well-functioning cartel usually does not control all of the world's production. If it doesn't, then we have two more rules:

- The larger the share of world production controlled by the cartel, the higher the price. Controlling more of the world production effectively increases the demand for the cartels' production (rather than having this demand lost to outside producers).
- The larger the elasticity of supply of non-cartel producers, the lower the price. The elasticity of non-cartel supply acts in the same way that the elasticity of demand does. The cartel refrains from raising the price too much because doing so result in too large a loss of sales.

These rules also suggest forces that work increasingly against cartels over time. When the cartel is first set up, it may initially enjoy low elasticity's and a high market share. Yet, the very success of cartel in raising the price is likely to set four anti cartel trends in motion:

- Sagging Demand
- New Competing Supply
- Declining Market Share
- Cheating.

Sagging Demand

First, if the cartel sets the higher price, it will make buying countries to look for new ways so that these countries may avoid importing the cartel's product. If their search for substitutes has any success at all, thereafter the imports of the buying countries will decrease over the period of time for any given cartel price. These countries' long-run demand curve for imports of the product is more elastic than their short-run demand curve. This happened in case of OPEC countries as well. As theory predicts, and as some OPEC oil ministers had feared, the oil-importing countries slowly came up with ways to conserve on oil use, such as usage of more fuel-efficient cars.

Declining Market Share

Second, the cartel's world market share will fall over time. To raise the product's price without piling up ever-rising unsold inventories, the cartel must cut its output and sales. Since nonmembers will be straining to raise their output and sales, then the cartels' share of the market will drop even if all of its members cooperate solidly. The share of OPEC in world oil production fell from over half in the early 1970s to less than a third in 1985.

Cheating

Theory and experience add a third reason for a decline in cartel power- the incentive for members to cheat on the cartel agreement. Suppose that you were a member of the successful oil export cartel shown back in Figure 4.3. As a typical cartel member, you have enough oil reserves to pump and sell more than your agreed output (OPEC calls this your production quota) for as long in the future as you need to plan. Raising your output above your production quota might cost you only, say, $6 a barrel at the margin. The buyers are willing to pay around $42.50 per barrel you sell, if the other cartel members are faithfully holding down their output. Why not attract some extra buyers to you

by shaving your price just a little bit below $42.50, say, to $41? The cartel can do so in the hope that its individual actions will not cause the cartel price to drop much, if at all. Theory says that this incentive to cheat tends to undermine the whole cartel. Perhaps some large members can keep the cartel effective for a while by drastically cutting their own outputs to offset the extra sales from the cheaters. Their aggregate size determines how long they can hold out. OPEC members cheated on the cartel, even openly, just as theory would predict. Up to the mid-1980s, the largest producer, Saudi Arabia, had to hold the cartel together by cutting its production while others cheated. Then the Saudis themselves shifted to a more competitive stance, and the relative price of oil fell dramatically in late 1985.The usual theory of cartels thus correctly explains why cartel profit margins and profits will erode with time." Yet the theory does not say that cartels are unprofitable or harmless. On the contrary, it underscores the profitability of cartel formation to cartel members. Even a cartel that eventually erodes can bring fortunes to its members.

New Competing Supply

Lastly, the initial cartel success will accelerate the search for additional supplies in non-cartel countries. If the cartel product is an agricultural crop, such as sugar or coffee, the cartel's price hike will cause farmers in other countries to shift increasing amounts of land, labor, and funds from other crops into sugar or coffee. If the cartel product is a depletable mineral resource, such as oil or copper, non-cartel countries will respond to the higher price by redoubling their explorations in search of new reserves If the non-cartel countries meets with success, their competing supply will become increasingly elastic with the passage of time. Again, that happened in case of OPEC- as other countries succeeded in discovering new oil at a faster rate.

The Oil Price Increase since 1999

Following the price collapse of 1986, crude oil prices remained rather low (with the exception of a few months in 1990 during the time of Operation Desert Storm action against Iraq). By late 1998 the relative price of oil had fallen back to about its level in1973. But then oil prices began to rise again, tripling by early 2004 and then doubling again during 2004-2005.

So, is this the reemergence of OPEC's monopoly power? Only partly. In the late 1990s and early 2000s, OPEC countries did attempt with some success to reduce its production to raise the price. However much of the price rise seem to reflect the broader dynamics of the industry, dynamics that are based on the competitive aspects of the market.

Demand from China grow rapidly, with additional strong demand growth in demand in such other countries as India and the United States. Furthermore. the years of rather low oil prices discouraged investment in new crude oil production capabilities, leading to tight supply and a lack of spare production capacity. Then in 2004 and 2005, hurricanes disrupted oil production in the Gulf of Mexico. As a result of the demand and production shifts, oil prices have risen well above the OPEC price targets. The big price rise in the mid-2000s looks more like a boom period in a highly cyclical industry than it looks like the planned exercise of market power by the cartel.

Other Primary Products

Do theory and OPEC experience hold out hope for other developing countries willing to make large national gains by joining cartels in other primary products besides oil? Not much. There are good reasons for believing that international cartels would collapse faster, with less interim profit, for the non-oil primary products. For agricultural crops in particular, there is the problem of competing supply. Other countries usually can easily expand the acreage they devote to a given crop. Similarly with animal products and forests.

History also agrees with this verdict. Of the 72 commodity cartels which were set up between the two world wars, only 2 could survive past 1945. Of the few dozen set up in the 1970s, only five lived as late as 1985i.e. cocoa, coffee, rubber, sugar, and tin. These five cartels have been so weak that they have had little effect on commodity markets since 1985.

Given the limits of international cartel power, a developing nation could still tax is own primary-product exports for the sake of economic development. In principle, the strategy could work well.

A tax on exports of Nigerian oil, Ghanaian cocoa or Philippine coconuts could generate revenues for building schools, hospitals, and roads.

Unfortunately, the political economy of some developing countries seems to divert the export-tax revenues away from the most productive uses. So, it has been with the three examples just imagined. Nigeria's oil revenues are lost in a swollen government bureaucracy and ravenous corruption. For two decades Ghana's cocoa marketing board used its heavy taxation of cocoa farmers to support luxury imports by officials. The Marcos government distributed the Philippine coconut-tax revenues among a handful of Marcos's friends and relatives.

Import-Substituting Industrialization (ISI)

Exporting primary products is a way for many developing countries to use their comparative advantages based on land and natural resources. But reliance on such traditional exports brings risks, including what appear to be slowly declining relative prices of these products and exposure to the wide swings in world prices. Perhaps shifting the emphasis toward developing new industries, especially in manufacturing, is better for countries that want to grow more rapidly. After all, most high-income countries have industrialized.

In this connection, officials from many countries have argued that they must cut their reliance on exporting primary products and should adopt government policies allowing industry to grow at the expense of the agricultural and mining sectors. Can this emphasis on industrialization be justified? If so, should it be carried out by restricting imports of manufactures?

The Great Depression caused many countries to turn toward import-substituting industrialization (ISI). In the early 1920s and again in the early 1930s, world prices of most primary products plummeted. Although these price declines did not prove that primary exporters were suffering more than industrial countries, it was common to suspect that this was so. Several primary-product-exporting countries, among them Brazil and Australia, launched industrialization at the expense of industrial imports in the 1930s.

The ISI strategy gained additional prestige among newly independent nations in the1950s and 1960s. This approach soon prevailed in most developing countries whose barriers against manufactured imports came to match those of the most protection is prewar industrializes. Though many countries have switched toward more pro-trade and export-oriented policies since the mid-1960s, ISI remains an important policy for developing countries.

Import-Substitution at its Best: Arguments in Favor

1. The infant industry argument emphasis on the economic and social side benefits from industrialization. Some of the benefits of ISI are- gains in technological knowledge and worker skills transcending the individual firm, new attitudes more conducive to growth, and national pride. The economist can imagine other tools more suitable to each of these tasks than import barriers. But in an imperfect world these better options may not be at hand, and protection for an infant modern-manufacturing sector could bring gains.

2. The developing government argument lends further support to ISI. Suppose that the only way that a government can raise revenues for any kind of economic development is to tax imports and exports. Such taxation could bring gains to a nation whose government cannot mobilize resources for health, education, and so on without taxing trade. ISI would be a by-product of such taxation of foreign trade.

3. For a large country, or a large organization of countries, replacing imports can bring better terms-of-trade effects than expansion of export industries. Here we return to a theme of "immiserating growth" and discussion of the nationally optimal tariff. Replacing imports with domestic production will, if it has any effect at all on the foreign price of the continuing imports, tend to lower these prices (excluding the tariff or other import charge) and offer the nation a better bargain. If you can affect the prices at which you trade, it would be better to expand your supply of import-competing industries, thus forcing the foreigners to sell you the remaining imports at a lower price.

5.3 Critique of Secular Stagnation of Terms of Trade

The Prebisch-Singer hypothesis has been criticized on the following grounds:

Not Firm Basis for Inference

The inference of secular deterioration of terms of trade for the LDC's rests upon the exports of primary vis-a-vis manufactured products. In this regard, it should be remembered that the LDC's export wide variety of primary products. Sometimes they export also certain manufactured products. At the same time, these countries do not import only manufactured products but also a number of primary products. It is, therefore, not proper to draw a firm inference about terms of trade just on the basis of primary versus manufactured exports.

Faulty Statement of Gains And Losses of Primary Exporters

Professor Jagdish Bhagwati has pointed out that the index of terms of trade employed in this thesis understates the gains of exporters of primary products. At the same time, there is over-statement of losses of primary producers.

Faulty Index of Terms of Trade

The Prebisch-Singer hypothesis rests upon the index, which is the inverse of the British commodity terms of trade. This index overlooks the qualitative changes in products, appearance of new varieties of products, services like transport etc. The generalisation based on British terms of trade for the period 1870 to 1930, according to Kindle Berger, is not true for the other developed countries of Europe.

Neglect of Supply Conditions

In the determination of terms of trade, the Prebisch-Singer thesis considers only demand conditions. The supply conditions, which are likely to change significantly over time, have been neglected. The relative prices, in fact, depend not only upon the demand conditions but also on the supply conditions.

Little Effect of Monopoly Power

One of the arguments in support of this thesis was that the higher degree of monopoly power existing in industry than in agriculture led to secular deterioration of terms of trade for the developing countries. In this connection, it was also agreed that the monopoly element prohibited the percolation of benefits of technical progress to the LDC's. The empirical evidence has not supported such a line of argument.

Inapplicability of Engel's Law

The secular decline in the demand for primary products in developed countries was attributed to Engel's Law. But this is not true because this law is applicable to food and not to the raw materials, which constitute sizeable proportion of exports from, the LDC's.

Benefits From Foreign Investment

The deterioration of the terms of trade for the LDC's is sometimes linked not to non-transmission of productivity gains to them by advanced countries through lower prices of manufactured goods, yet the benefits from foreign investments have percolated to the LDC's through the product innovations, product improvement and product diversification. These benefits can amply offset any adverse effects of foreign investment upon terms of trade and the process of growth.

Difficult to Assess Variation in Demand for Primary Products

The secular deterioration in terms of trade of the LDC's during 1870 to 1930 period was supposed to be on account of the declining world demand for primary products. During that period, there were tremendous changes in world population, production techniques, living standards and means of transport. Given those extensive developments, it is extremely difficult to assess precisely the changes in world demand for primary products and the impact of those changes upon the terms of trade.

Export Instability and Price Variations

The Prebisch-Singer thesis suggested that export instability in the LDC's was basically due to variations in prices of primary products relative to those of manufactured products. Mc Been, on

the contrary, held that the export instability in those countries could be on account of quantity variations rather than the price variations.

Development of Export Sector not at the Expense of Domestic Sector

In this thesis, Singer contended that foreign investments in poor countries, no doubt, enlarged the export sector but it was at the expense of the growth of domestic sector. This contention is, however, not always true because the foreign investments have not always crowded out the domestic investment. If foreign investments have helped exclusively the growth of export sector, even that should be treated as acceptable because some growth is better than no growth. It is far-fetched to relate worsening of terms of trade to the non-growth of domestic sector.

Faulty Policy Prescription

Prebisch prescribed the adoption of protectionist policies by LDC's to offset the worsening terms of trade. Any gains from tariff or non-tariff restrictions upon imports from advanced countries can at best be only short-lived because they will provoke retaliatory actions from them causing still greater injury to the LDC's.

In the present W.TO regime of dismantling of trade restrictions, Prebisch suggestion is practically not possible to implement. There should be rather greater recourse to export promotion, import substitution, favorable trade agreements and adoption of appropriate monetary and fiscal action for improving the terms of trade in the developing countries.

Summary

- Based on the exports statistics of the United Kingdom between 1870 and 1940, Raul Prebisch demonstrated that the terms of trade of UK revealed a secular tendency to move against the primary products and in favor of the manufactured and capital goods. Later, H. W. Singer also made significant contribution to this theory and hence came to be known as Prebisch-Singer hypothesis.

- The practical implication of Prebisch-Singer thesis is that the peripheral or LDC's had to export large amounts of their primary products in order to import manufactured goods from the industrially advanced countries. Thus, the Prebisch–Singer hypothesis holds the view that the price of primary commodities declines relative to the price of manufactured goods over the long term, which causes the terms of trade of primary-product-based economies to deteriorate.

- The Prebisch-Singer hypothesis maintains that there has been technical progress in the advanced countries, the fruit of which have not percolated to the LDC's. In addition, the industrialized countries have maintained a monopoly control over the production of industrial goods. They could manipulate the prices of manufactured goods in their favour and against the interest of the LDC's.

- The Prebisch-Singer hypothesis examines the time-series properties of primary commodity prices relative to manufactured goods prices and thereby argues that such prices present a downward secular trend. This is important because many developing countries rely on a small number of primary commodities to generate the majority of their export earnings.

- Another significant theoretical implication of this theory is that the declining relative commodity prices include a low income elasticity of demand for primary commodities, lack of differentiation among commodity producers leading to highly competitive markets, productivity differentials between North (i.e., industrial economies) and South (i.e., commodity-producing economies), and asymmetric market structure (where manufacturing industries

capture oligopolistic rents relative to competitive firms earning zero economic profits and producing primary commodities).

- The Prebsich-Singer hypothesis also made the case of import substitution growth strategies for the developing economies.

- Prebisch and Singer primarily based their argument on three stylized facts: first, the developing countries were indeed highly specialized in the production and export of primary commodities. Second, that technical progress was concentrated mainly in industry. Third, the relative price of primary commodities in terms of manufactures had fallen steadily since the late 19th Century. Together these facts suggested that, because of their specialization in primary commodities, developing countries had obtained little benefit from industrial technical progress, either directly, through higher productivity, or indirectly, through improved terms of trade.

- It should be noted here that over these two alternative explanations for the decline in commodity prices, one involving supply, the other demand, Prebisch and Singer parted company with each other. Prebisch primarily focused on the supply side while Singer laid more emphasis on the demand side.

- Based on their analysis, Prebisch and Singer drew policy implications from what they had found. Both argued that as the way out of their dilemma, developing countries should foster industrialization. While they did not directly advocate protectionism, it is clear that they had in mind to change the pattern of comparative advantage. Thus, whether intentionally or not, Prebisch and Singer provided intellectual support for the import substitution policies that prevailed in many developing countries through the 1970s.

Keywords

- Secular deterioration of terms of trade
- Prebisch-Singer hypothesis
- Primary products
- Manufactured products
- Developed countries
- Developing countries
- Engle's Law
- Import substitution

Self Assessment

1. Based on the _____ of the United Kingdom between 1870 And 1940, Raul Prebisch demonstrated that the terms of trade of UK revealed a secular tendency to move against the primary products and in favor of the manufactured and capital goods.

2. The Prebisch–Singer hypothesis holds the view that the price of _____ declines relative to the price of manufactured goods over the long term, which causes the terms of trade of primary-product-based economies to deteriorate.

3. Prebisch and Singer argued that as the way out of their dilemma, developing countries should foster _____.

4. Singer Focused More on the demand Side, considering mainly _____ And _____ .

5. The Prebsich-Singer provided motivation for adopting import substitution growth strategies for the developing economies. (T/F)

6. The Prebisch-Singer hypothesis examines the time-series properties of primary commodity prices relative to manufactured goods prices and thereby argues that such prices present a rising secular trend. (T/F)

7. The concept of net barter terms of trade was introduced by _____

8. The concept of commodity terms of trade was introduced by _____

9. Several primary-product exporting countries like Brazil and Australia launched industrialization at the expense of _____in 1930s.

10. The diagrammatical representation in Figure 4.2 shows that the cartel will maximize its profits using monopoly model and the monopoly profits of cartel at point B will be _____.

11. The 1973-74 and 1979-80 oil price jump in OPEC countries were _____ since the world demand was growing faster than non-OPEC supplies.

12. The process of growth and trade resulting in the country becoming poorer in respect of welfare has been termed as _____

13. The commodity terms of trade are represented through _____

14. The larger the share of world production controlled by the cartel, the higher the _____

15. The factors leading to erosion of Cartel power are
A. Sagging Demand
B. New Competing Supply
C. Declining Market Share
D. All of the above

Answers for Self Assessment

1.	Exports statistics	2.	Primary products	3.	Industrialization	4.	Price and income elasticities.	5.	True
6.	False	7.	F.W. Taussig	8.	Jacob Viner	9.	Industrial imports	10.	$1125 millions a day

11. Human-made	12. Immiserizing growth	13. Index of export prices/Index of import prices* 100	14. Price	15. D.

Review Questions

1. State the basic assumptions of the Prebisch-Singer hypothesis.
2. Critically discuss the Prebisch-Singer hypothesis.
3. Is the Prebisch-Singer hypothesis validated by empirical evidence? Discuss it
4. On which grounds was the Prebisch-Singer hypothesis criticized?
5. Illustrate the OPEC case of rising global oil prices by forming cartel with the help of diagrammatical representation?

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Unit 06: Trade Restrictions

Objectives

- Understand Tariffs and its Types
- Analyse the partial and general equilibrium effects OF Tariff
- Analyze the trade ad commercial policies including protectionism

Introduction

Free trade maximizes world output and benefits all nations. However, practically all nations impose some restrictions on the free flow of international trade. Since these restrictions and regulations deal with the nation's trade or commerce, they are generally known as trade or commercial policies. While trade restrictions are invariably rationalized in terms of national welfare, in reality they are usually advocated by those special groups in the nation that stand to benefit from such restrictions.

The most important type of trade restriction has historically been the tariff. A tariff is a tax or duty levied on the traded commodity as it crosses a national boundary. In this chapter we deal with tariffs, and in the next chapter we discuss other trade restrictions. An import tariff is a duty on the imported commodity, while an export tariff is a duty on the exported commodity. Import tariffs are more important than export tariffs, and most of our discussion will deal with import tariffs. Export tariffs are prohibited by the U.S. Constitution but are often applied by developing countries on their traditional exports (such as Ghana on its cocoa and Brazil on its coffee) to get better prices and raise revenues. Developing nations rely heavily on export tariffs to raise revenues because of their ease of collection. Conversely, industrial countries invariably impose tariffs or other trade restrictions to protect some (usually labor-intensive) industry, while using mostly income taxes to raise revenues.

The tools of trade protection that countries typically use to restrict imports can be broadly classified into price related measures such as tariffs and non-price measures or non-tariff barriers (NTBs).

A tariff is a tax levied on imports. Tariffs may be applied to imports of both final and intermediate goods. This aspect is taken into account while assessing the extent of protection extended to

domestic industry by the tariff. We will learn about a concept called the 'effective rate of protection', which is used to measure the extent of actual protection granted to value added in a particular industry by the entire tariff structure (covering final and intermediate goods).

Non-tariff barriers (NTBs) are applied to quantities and other attributes of traded goods and services.

6.1   Meaning of Tariff

A tariff or import duty essentially alters the relative prices of traded goods vis a vis non-traded goods in the domestic market. Tariffs may be specific or ad valorem. Specific tariffs are levied as a fixed amount per unit of the good (e.g., Rs.400 per box of imported dates). While, ad valorem duties are levied as a fixed percentage of the total value of the goods (e.g., 30% duty on imported computer parts).

6.2   Types of Tariffs

Tariffs are classified in a number of ways

On the Basis of Purpose. Tariffs are used for two different purposes : for revenue and for protection.

1. Revenue Tariff. Revenue tariffs are meant to provide the state with revenue. Revenue duties are levied on luxury consumer goods. The lower the import duties, the larger is the revenue from them. This is because the rise in the price of the imported goods does not increase much with the imposition of low import duties and the consumers do not normally shift their demand to other domestically produced goods.

2. Protective Tariff. Protective tariffs are meant "to maintain and encourage those branches of home industry protected by the duties." Now-a-days, governments levy import duties with the principal objective of discouraging imports in order to encourage domestic production of protected industry. The revenue function of an import duty is a secondary one. The following types of tariff duties are levied : ad valorem, specific, compound and sliding scale duties.

1. Ad Valorem Duty. The most common type of duty is the ad valorem duty. It is levied as a percentage of the total value of the imported common duty. The import duty is a fixed percentage of the c.i.f. (cost, insurance and freight) value of the commodity. It may be 25 per cent, 50 per cent and so on.

2. Specific Duty. Specific duties are levied per physical unit of the imported commodity, as Rs X per TV, as cloth per metre, as oil per litre, as fertilizers per tonne, etc.

3. Compound Duty. Often, governments levy compound duties which are a combination of the ad valorem and the specific duties. In this case, units of an imported commodity are levied a percentage ad valorem duty plus a specific duty on each unit of the commodity. For instance, a country may impose an import duty on a car at the fixed rate of Rs. 1 lakh + 10% on the price of car.

4. Sliding Scale Duty. Sometimes governments levy import duties which vary with the prices of commodities imported. Such duties are known as sliding scale duties which may be either ad valorem or specific. Normally, sliding scale duties are imposed on specific basis.

On the Basis of Country-wise Discrimination. The following types of tariffs are levied on the basis of country-wise discrimination.

1. Single Column Tariff. When a uniform rate of duty is imposed on all similar commodities irrespective of the country from which they are imported, it is called single-column tariff. It is non-discriminatory tariff which is very simple and easy to design and administer. But it is not elastic and adequate. Revenue may not be collected by this system.

2. Double Column Tariffs. Under this system, two different rates of duty exist for all or some of the commodities. The government of the country declares both the rates at the beginning or one at the beginning and another after settling the rates under trade agreements. They can be classified as follows :

   i. General and Conventional Tariffs. The general tariff is the list of tariffs which is announced by the government as its annual tariff policy at the beginning of the year. It is a particular tariff rate which is charged from all countries. On the other hand, conventional tariff rates are based on trade agreements/treaties with other countries. They may be different for different countries and vary from commodity to commodity. They are not flexible for they can only be changed by mutual consent. As they are inflexible, they hamper the expansion of trade.

   ii. Maximum and Minimum Tariffs. Governments usually fix two tariff rates for importing the same commodity from different countries. Countries with which it has a commercial agreement/ treaty, (under most favored nation), minimum tariff rate is imposed. On the other hand maximum tariff rate is imposed on imports from the rest of the countries.

3. Multiple or Triple Column Tariffs. Under the multiple column tariff system, two or more tariff rates are levied on each category of commodity. But the usual practice is to have three different lists of tariffs, i.e. general, intermediate and preferential. The general rates are imposed in the same manner as the maximum rates mentioned above. Similarly, the intermediate rates are the minimum rates. The preferential rates were levied on goods imported from Britain before independence which had low rates or were duty free. Presently, imports among the SAARC countries carry preferential duties on imports from each other.

On the Basis of Retaliation. There are two ways to levy import duties on the basis of retaliation

1. Retaliatory Tariffs. A retaliatory tariff duty is levied by one country on the imports of another country in order to punish the latter for its trade policy which harms its exports or balance of payments position.

2. Countervailing Duty. It is an additional duty which is imposed on a commodity whose export price is reduced by the other country through an export subsidy. The additional duty is levied to raise its price in order to protect producers of the same commodity in the importing country from the cheap foreign commodity.

6.3 Effects of Tariffs

Tariffs have a variety of effects which depend upon their power to reduce imports. The effects of a tariff may be analysed from the standpoint of the economy as a whole which is known as the general equilibrium analysis. Or, they may be discussed from the point of view of a particular good or market which is known as the partial equilibrium analysis. A tariff "is likely to alter trade, prices, output, and consumption, and to reallocate resources, change factor proportions, redistribute income, change employment, and alter the balance of payments.

Effects of a Tariff Under Partial Equilibrium

The effects of a tariff under partial equilibrium analysis relate to a small industry in a small country. When a tariff is imposed on the imports of a single commodity by a small country, it does not affect the rest of the domestic economy and also the world price of this commodity.

Its Assumptions

The analysis of the effects of a tariff under the practical equilibrium analysis is based on the following assumptions :

1) There is only one small country.

2) It imposes tariff on one commodity.

3) The demand and supply curves of a commodity relate to the country which levies an import duty.

4) These curves are assumed as given and constant.

5) On the demand side, consumers' tastes, incomes and prices of other commodities are assumed to be fixed.

6) On the supply side, changes in cost conditions such as externalities, technological innovations, etc. do not take place.

7) The world supply of commodity is perfectly elastic with respect to price.

8) The home country does not impose tariff on the imports of materials required for producing the commodity.

9) There are no transport costs.

10) The foreign price of the commodity remains unchanged.

11) The imported and domestically produced commodity are perfect substitutes.

Prof. Kindleberger has listed eight effects of tariffs : (1) Protective Effect; (2) Consumption Effect; (3) Revenue Effect; (4) Redistributive Effect; (5) Terms of Trade Effect; (6) Competitive Effect; (7) Income Effect; and (8) Balance of Payments Effect. All these effects are the result of the Price Effect which we first explain.
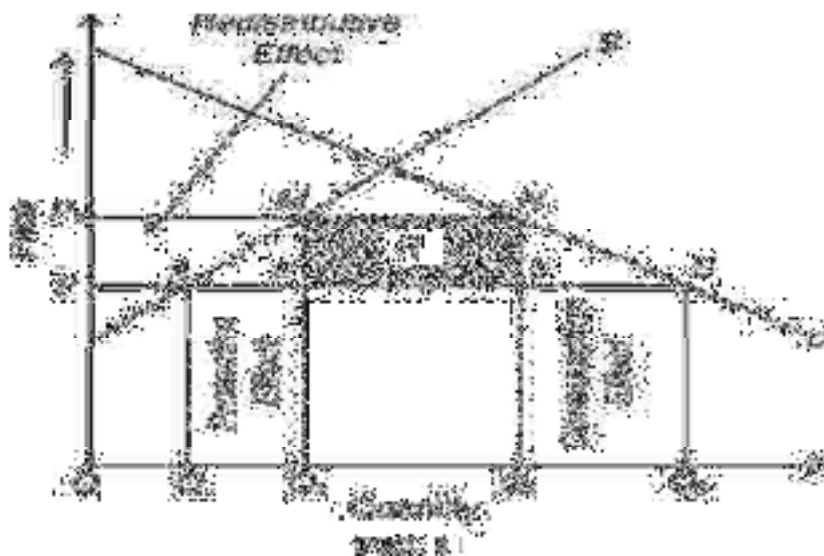
Price Effect. Given these assumptions, the price effect of a tariff is explained in terms of Fig. 1 where D and S are the domestic demand and supply curves of a commodity. OP represents the constant world price at which the foreign producers are prepared to sell their commodity in the domestic market. Thus the horizontal line fl PB is the supply curve of imports which is perfectly elastic at OP price. Thus under free trade (before the imposition of a tariff) the equilibrium market position is given by point B where the domestic demand curve D intersects the world supply curve PB at the price OP. The total demand for the commodity is OQ3. The domestic supply is OQ. The difference between domestic demand and domestic supply is met by importing QQ3 quantity at OP price.

Suppose a tariff of PP1 is imposed on the import of the commodity. Given a constant foreign price, the domestic price of the commodity rises by the full amount of the tariff of OP1. Thus the rise in the price of the commodity by PP1 is the price effect of the tariff. As a result, the new equilibrium market position is given by point N. In response to the higher price, the domestic demand falls from OQ3 to OQ2 and the domestic supply increases from OQ to OQ1. So that the total demand for

the commodity is OQ2 which is partly met by domestic supply OQ1 and partly by importing Q1Q2. Thus imports have fallen from QQ3 to Q1Q2 as a result of the price effect. The protective, consumption, revenue and redistribution effects of a tariff can also be illustrated by Fig. 1.

Protective Effect. The protective effect shows how the domestic industry can be protected from foreign competition by imposing an import duty. In Fig. 1 under free trade, OQ3 quantity of the commodity is imported at OP price. With the imposition of the import duty of PP1, imports are reduced to Q1Q2, while the domestic production (supply) of the commodity increases from OQ to OQ. Thus the increase in the domestic production of the commodity by QQ1 as a result of the tariff is the protective or production effect. Prof. Ellsworth has carried this protective effect further and

Has analysed it as the import substitution effect. When the domestic producers face the higher price OP1, they are able to cover the rising marginal costs of additional output, and expand production to OQ1.This replacement of foreign production with domestic production by QQ1 is called the import substitution effect of a tariff.

Consumption Effect. The consumption effect of the tariff is to reduce the consumption of the commodity on which the tariff is imposed, as also to reduce consumers' net satisfaction. These are illustrated in Fig. 1. Before the imposition of a tariff, consumers were consuming OQ3 quantity of the commodity at OP price, with the levying of an import duty of PP1, the price of the commodity rises to OP1. Now imports are reduced by Q3Q2 and the total consumption of the commodity is also reduced from OQ3 to OQ2. Thus Q3Q2 (= OQ3 – OQ2) is the consumption effect of the tariff. This, in turn, leads to a net loss of consumers' satisfaction equal to the area PP1NB. Prof. Kindleberger calls the combined protective and consumption effect as trade effect. The imposition of PP1 tariff has the effect of reducing the total volume of trade of the country equivalent of OQ3 – Q1Q2.

Revenue Effect. the revenue effect is the change in government receipts as a result of the tariff. In the case illustrated in Fig. 1 initially the tariff is assumed zero at price OP. So when PP1 import duty is levied, the revenue to the government is equal to the amount of the import duty multipled by the quantity of imports. The revenue effect is, therefore, PP1 × Q1Q2, or the rectangular shaded area R.

Redistributive Effect. The redistribution effect results from producers receiving a higher price for their commodity after the imposition of the tariff. This is shown in Fig. 1 by the area PP1MA.

This amount is a surplus over production costs and is an economic rent which goes to producers. According to Kindleberger the redistribution effect "is an addition to producers' surplus derived by subtraction from consumers' surplus". In this sense, the net loss to consumers' satisfaction as measured by the consumption effect is PP1NB. Out of this, the amount shown by the area R is taken away by the government as revenue, and the loss of consumers' surplus is represented by the two traingles a and b. This loss of consumers' surplus represented by the two triangles a and b is neither transferable to the producers nor to the government and is called by Kindleberger as the "deadweight loss of the tariff." This may also be called the cost of the tariff. Thus the quadrilateral PP1MA measures the redistributive effect of the tariff which goes to the domestic producers of the commodity.
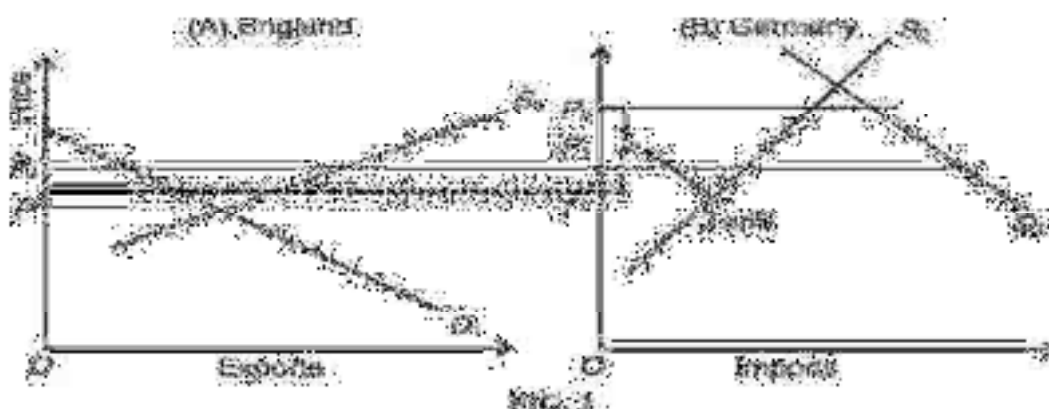
Balance of Payments Effect: A tariff has a favourable balance of payments effect by reducing imports in the tariff imposing country and reducing exports in the other country. Thus a tariff reduces the country's international expenditure and brings stability in the balance of payments. The

balance of payments effect is illustrated in Fig. 1. Under free trade conditions, QQ3 commodity is imported at OP price.

The total value of imports is represented by the rectangle AQQ3B. This represents a balance of payments deficit since the price paid by importers is the amount received by the other country. To remove this deficit, PP1 import duty is levied on the imported commodity. As a result, imports are reduced from QQ3 to Q1Q2. The government gets a revenue equal to the area R. There is also improvement in the balance of payments because the amount paid to the other country equals the area aQ1Q2b which is less than under free trade AQQ3B.imposing country and reducing exports in the other country. Thus a tariff reduces the country's international expenditure and brings stability in the balance of payments. The balance of payments effect is illustrated in Fig. 1. Under free trade conditions, QQ3 commodity is imported at OP price.

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Terms of Trade Effect: The terms of trade effect of a tariff is that it improves the terms of trade of country imposing it. This is illustrated in Fig. 2 when Panel (A) shows S1 and D1 as the supply and demand curves respectively of the exporting country England, and Panel (B) shows S2 and D2 the supply and demand curves respectively of the importing country Germany. Before the imposition of a tariff by Germany, trade between the two countries is taking place at the price OP1. Suppose Germany imposes tariff of P2T amount on the imported commodity from England. This raises its price in Germany and the demand for it falls. On the other hand, its supply price in England falls with the decline in its export demand. Thus, the price rises from OP1 to OP2 in Germany in Panel (B) and falls in England from OP1 to OP' in Panel (A), as a result of the tariff. Of the total tariff of P2T, a larger amount P2P1 is borne by the importer country Germany and P1P by the exporter country England. The terms of trade effect is that a tariff-imposing country improves its terms of trade by getting its imports cheaply in the sense that the exporter country is forced to pay a part of the tariff duty. "It is true that the consumer in the importing country has to pay a higher price. But this is offset, so far as imports are concerned, by the revenue effect. If the redistribution effect can be ignored, the revenue effect, which is the tariff times imports after the imposition of the tax, is levied partly on producers in the exporting country." If the supply is very inelastic in the exporting country and the demand fairly elastic in the importing country, the imposition of a tariff will not change the imports much, but they will be obtained much cheaply. If the supply curve in the exporting country is perfectly elastic the imposition of a tariff cannot improve the terms of trade at all.

Competitive Effect: The competitive effect of a tariff is to protect the domestic industry from foreign competition by imposing a tariff on the commodity imported. This effect is usually associated with the infant industry argument of protection. But the fear is expressed that an infant industry may not like to face competition even after attaining adulthood. It may develop into a monopoly and may continue to be inefficient. Prof. Kindleberger opines that "the competitive effect of a tariff is really an anti-competitive effect; competition is stimulated by tariff removal." He, therefore, favours the removal of tariff on "sluggish, fat and lazy" domestic industries in the interest of the economy.

Income Effect: The income effect refers to the effect of a tariff on the levels of income and employment of a country imposing the tariff. A tariff reduces the demand for imported goods by reducing imports, and increases the demand for home-produced goods on the assumption that there is no retaliation by the other country. It will increase the value of the export surplus (X – M), thereby increasing the inflow of income from the foreign sector. The whole of the income diverted from imports will not be saved but a part of it will be spent at home. Under conditions of less than full employment, this will raise money and real incomes and employment.

The income effect of a tariff is illustrated in Fig. 3. AD is the total expenditure schedule of the economy at unemployment level which crosses the 45° line at E so that OY1 is the equilibrium level of income. AD also represents the aggregate demand and comprises C + l + G + (X – M). When a tariff is imposed, it reduces imports by DM and increases the demand for the domestically produced goods so that the aggregate demand curve shifts to AD1 = [C + 1 + G + (X –M). This gives a new equilibrium at point E1. If the increased level of income OYF is one of full employment,

then the imposition of a tariff has brought the economy to the level of full employment and raised the level of income of OYF
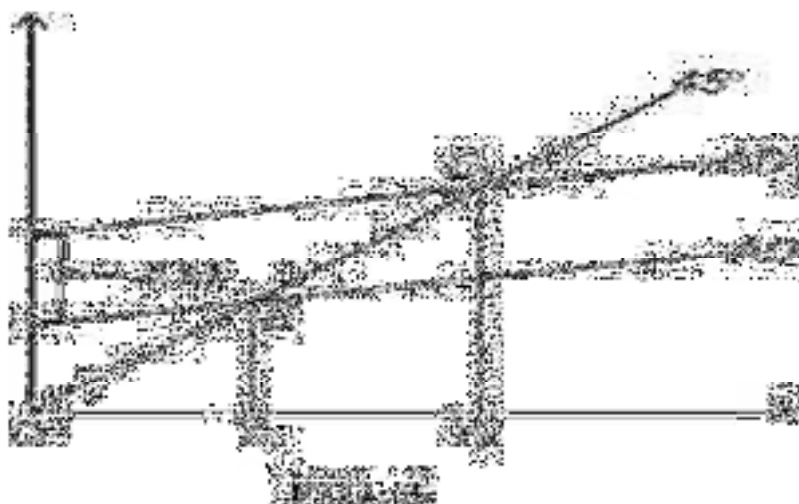
The effect of tariff on income and employment of a tariff imposing country may not be expansionary for the following reasons. First, when the home country imposes a tariff, the exports of the foreign country are reduced which, in turn, reduce its output, employment and income. As a result, the foreign country will curtail its imports from the home country. This means reduction in the exports of the tariff imposing home country which reduces its income and employment. This is called a begger-thy-neighbour policy. Second, If the tariff imposing country is able to raise its income and employment at the expense of the other country. Third, the other country may adopt retaliatory measures like tariff and countervailing duties which may counteract the income and employment effects in the home country.

6.4 General Equilibrium Analysis of a Tariff

In the general equilibrium analysis, a study is made of the effects of tariff on consumption, production, trade and welfare. When a country imposes a tariff, not only a specific product or sector but practically every sector of the economy gets affected in one way or the other, until the economic system reaches a new equilibrium position.

In this connection, Kindelberger remarked that a tariff is "…likely to alter trade, prices, output and consumption, and to reallocate resources, change in factor proportions, redistribute income, change employment and alter the balance of payments." The general equilibrium analysis of tariff is made from the viewpoint of a small country and a large country.

General Equilibrium Analysis of Tariff in a Small Country:

When the tariff-imposing country is small, the domestic price of the importable commodity will rise by the full amount of tariff for the individual consumers and producers in that small tariff-imposing country. The international price of the commodity will, however, remain unaffected. The divergence between the price of the importable commodity for individual producers and consumers and the importing country as a whole is of crucial importance in analysing the effect of tariff upon welfare.

Assumptions:

The general equilibrium analysis of tariff in case of a small country can be attempted on the basis of the following assumptions:

    i.   The trade takes place between two countries – A and B.

   ii.   The home country A is small.

  iii.   There are two commodities, cloth and steel, being exchanged between them.

  iv.   Cloth is exportable and steel is importable commodity.

   v.   The imposition of tariff by A upon importable commodity steel raises the import price of steel for domestic producers and consumers upto the full amount of tariff.

  vi.   World price of steel remains unaffected.

 vii.   The revenues collected by the government through tariff are spent by the government to subsidies public consumption such as schools, health services etc.

The production and consumption effects of tariff upon country A can be analysed through Fig.4

CLOTH (EXPORTABLE)
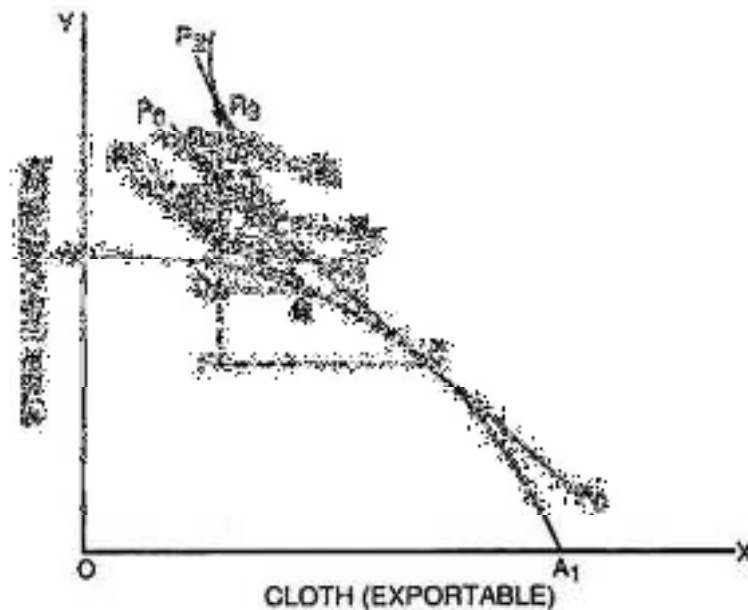
n Fig. 4., the production possibility curve related to two commodities cloth and steel is AA1. In the absence of international trade, the point of consumption and production equilibrium is B. In the conditions of free international trade, P0P0 is the international exchange ratio line and the production equilibrium point is E.

The consumption equilibrium point is R1 that lies on the community indifference curve C2. In this situation, country A exports FE quantity of cloth and imports R1F quantity of steel. If tariff is imposed but the world prices of commodities remain the same, the international exchange ratio line is P1B which is parallel to the original international exchange ratio line P0P0.Now production equilibrium shifts to B where country A produces a large quantity of steel (importable good) domestically. This is the production or protective effect of tariff. The consumption equilibrium shifts from R1 to R2 where the international exchange ratio line P1B becomes tangent to a lower community indifference curve C1.

It shows that tariff has caused a reduction in the welfare of tariff-imposing small country. The shift in consumption point from R1 to R2 signifies the consumption effect of tariff. After tariff, country exports BD quantity of cloth and imports R2D quantity of steel. Thus in the case of a small tariff-imposing country, the import tariff has adverse effects. Firstly, since world prices of exchanged commodities remain unchanged, tariff fails to bring about an improvement in the terms of trade for the home country A. Secondly, although there is an increased production of import-substitutes within the home country yet the diversion of resources from the production of cloth, in case of which the country was enjoying comparative advantage and was having specialisation, shows the misallocation of resources and consequent loss to country A.Thirdly, the shift of consumption equilibrium to a lower community indifference curve indicates loss in welfare for the tariff-imposing country. Fourthly, tariff not only reduces imports but also the exports of the tariff-imposing country. The reduction in the volume of trade is not only a loss to the tariff- imposing country but also for the rest of the world.

6.5   <u>Optimum Tariff</u>

Usually, the imposition of a tariff improves the terms of trade of the imposing country but reduces its volume of trade. The improvement in the terms of trade increases its welfare. This is the positive effect of a tariff. The decrease in the volume of trade reduces its welfare. This is the negative effect of a tariff. It is only when the positive effect of a tariff is larger than its negative effect that there is improvement in the welfare of a country. A prohibitive tariff with a very high rate reduced welfare by decreasing the volume of trade. On the other hand, a reduction in tariff by improving the terms of trade increases welfare. Thus as long as the terms of trade effect is stronger than the volume of trade effect, welfare can be improved by increasing the tariff rate. But a tariff cannot be continuously increased because sooner or later the net gain begins to decrease and net loss begins to increase. Therefore, a country "can always improve its welfare by applying the 'right' tariff. This tariff, the tariff that maximises a country's welfare is called the optimum tariff."

Determination of Optimum Tariff.

The optimum level of tariff is determined at a point where the trade indifference curve of a tariff imposing country is tangent to the offer curve of the other country.

Assumptions:

This analysis is based on the following assumptions :

1.   There are two countries, England and Germany.
2.   There are two commodities, cloth and linen.
3.   England exports cloth and Germany exports linen.
4.   England imposes tariff on the import of linen from Germany.
5.   There is no retaliation by Germany on England's exports of cloth.

The following figure 5 explains the existence of some optimum tariff level. (R) is free trade equilibrium. At that point the volume of trade is og of A-good and oc of the B-good, and the terms of trade are given by the slope of line TP. The home country (II) now wishes to impose a tariff that will maximize its community welfare, i.e. place it on the highest possible trade indifference curve assuming no retaliation on the part of the foreign, country. Under free trade conditions at (R) country (H) attains the trade indifference level (h1) which crosses the foreign offer curve (OF) at (R) and at some other point (T).

Any tariff which distorts the home country's offer curve in such a way that it crosses the foreign country's offer curve between points (T) and (R) will lead to a higher trade indifference level. If the new tariff distorted point is at (T), of course, the trade indifference level will be unchanged. The highest possible trade indifference curve that the home country can reach is one that is tangent to the foreign offer curve. This is trade indifference curve (h2) tangent to foreign offer curve OF at point (s). Hence, if the home country can impose a tariff of such magnitude that the tariff distorted offer curve (OHt) touches the foreign offer curve (OF) at point (s); this is the optimum tariff (sd).

Given the foreign country's offer curve, the optimum tariff, in terms of A-good is quantity (Sa) or in terms of B-good, quantity (Sd). This is the optimum tariff. Given the foreign country's offer curve OF, there is no tariff the home country can impose that will yield a higher level of community welfare.

Fig. 5

The magnitude of optimum tariff depends upon the elasticity of foreign offer curve. If the foreign offer curve is perfectly elastic, no tariff will yield the home country improved terms of trade. Hence it cannot possibly advance to a higher trade indifference level. The less elastic the foreign offer curve, the higher will be the optimum tariff. Where the foreign offer curve has elasticity of one and thus is horizontal, the optimum tariff will be infinity.

Non-Tariff Trade Barriers and New Protectionism

Non-Tariff Barriers (NTBs), unlike tariffs, may impose direct restrictions on the inflow of imported goods. For instance, conventional NTBs like import quotas directly restrict the quantum of imports into the domestic country. While other NTBs discussed below restrict the flow of traded goods in a more indirect manner. From the following discussion you will see how countries are resorting to newer, more indirect forms of NTBs, most often in order to circumvent the directives of multilateral trade agreements like the WTO .

1. Quotas:

Import quotas impose direct restrictions on the quantum of imports into a country. In practice quotas are administered through a system of import licenses. Only license holders are given permission to import specified quantities of the imported good into the domestic market.

Other Nontariff Barriers and the New Protectionism

1. Voluntary Export Restraints

One of the most important of the nontariff trade barriers, or NTBs, is voluntary export restraints (VERs). These refer to the case where an importing country induces another nation to reduce its exports of a commodity "voluntarily," under the threat of higher all-around trade restrictions, when these exports threaten an entire domestic industry. Voluntary export restraints have been negotiated since the 1950s by the United States, the European Union, and other industrial nations to curtail exports of textiles, steel, electronic products, automobiles, and other products from Japan, Korea, and other nations. These are the mature industries that faced sharp declines in employment in the industrial countries during the past three decades. Sometimes called "orderly marketing arrangements," these voluntary export restraints have allowed the United States and other industrial nations making use of them to save at least the appearance of continued support for the principle of free trade. The Uruguay Round required the phasing out of all VERs by the end of 1999 and the prohibition on the imposition of new VERs

When voluntary export restraints are successful, they have all the economic effects of (and therefore can be analyzed in exactly the same way as) equivalent import quotas, except that they are administered by the exporting country, and so the revenue effect or rents are captured by foreign exporters.

2. Technical, Administrative, and Other Regulations

International trade is also hampered by numerous technical, administrative, and other regulations. These include safety regulations for automobile and electrical equipment, health regulations for the hygienic production and packaging of imported food products, and labeling requirements showing origin and contents. Many of these regulations serve legitimate purposes, but some (such as the French ban on scotch advertisements and the British restriction on the showing of foreign films on British television) are only thinly veiled disguises for restricting imports.

Much attention has also been given in recent years to border taxes. These are rebates for internal indirect taxes given to exporters of a commodity and imposed (in addition to the tariff) on importers of a commodity. Examples of indirect taxes are excise and sales taxes in the United States and the value-added tax (VAT) in Europe. Since most government revenues are raised through direct taxes (such as income taxes) in the United States and through indirect taxes (such as the value-added tax) in Europe, United States exporters receive much lower rebates than European exporters (or no rebate at all) and are thus at a competitive disadvantage.

3. International Cartels

An international cartel is an organization of suppliers of a commodity located in different nations (or a group of governments) that agrees to restrict output and exports of the commodity with the aim of maximizing or increasing the total profits of the organization. Although domestic cartels are illegal in the United States and restricted in Europe, the power of international cartels cannot easily be countered because they do not fall under the jurisdiction of any one nation. The most notorious of present-day international cartels is OPEC (Organization of Petroleum Exporting Countries), which, by restricting production and exports, succeeded in quadrupling the price of crude oil between 1973 and 1974.

Another example is the International Air Transport Association, a cartel of major international airlines that met annually until 2007 to set international air fares and policies. An international cartel is more likely to be successful if there are only a few international suppliers of an essential commodity for which there are no close substitutes. OPEC fulfilled these requirements very well during the 1970s. When there are many international suppliers, however, it is more difficult to organize them into an effective cartel. Similarly, when good substitutes for the commodity are available, the attempt by an international cartel to restrict output and exports in order to increase prices and profits will only lead buyers to shift to substitute commodities. This explains the failure of, or inability to set up, international cartels in minerals other than petroleum and tin, and agricultural products other than sugar, coffee, cocoa, and rubber.

Since the power of a cartel lies in its ability to restrict output and exports, there is an incentive for any one supplier to remain outside the cartel or to "cheat" on it by unrestricted sales at slightly below the cartel price. This became painfully evident to OPEC during the 1980s when high petroleum prices greatly stimulated petroleum exploration and production by nonmembers (such as the United Kingdom, Norway, and Mexico). The resulting increase in supply, together with conservation measures that reduced the increase in the demand for petroleum products, led to sharply lower petroleum prices in the 1980s and most of the 1990s as compared to the 1970s. It also showed that, as predicted by economic theory, cartels are inherently unstable and often collapse or fail. If successful, however, a cartel could behave exactly as a monopolist (a centralized cartel) in maximizing its total profits.

4. Dumping

Trade barriers may also result from dumping. Dumping is the export of a commodity at below cost or at least the sale of a commodity at a lower price abroad than domestically. Dumping is classified as persistent, predatory, and sporadic. Persistent dumping, or international price discrimination, is the continuous tendency of a domestic monopolist to maximize total profits by selling the commodity at a higher price in the domestic market (which is insulated by transportation costs and trade barriers) than internationally (where it must meet the competition of foreign producers).

Predatory dumping is the temporary sale of a commodity at below cost or at a lower price abroad in order to drive foreign producers out of business, after which prices are raised to take advantage of the newly acquired monopoly power abroad. Sporadic dumping is the occasional sale of a commodity at below cost or at a lower price abroad than domestically in order to unload an unforeseen and temporary surplus of the commodity without having to reduce domestic prices.

Trade restrictions to counteract predatory dumping are justified and allowed to protect domestic industries from unfair competition from abroad. These restrictions usually take the form of antidumping duties to offset price differentials, or the threat to impose such duties. However, it is often difficult to determine the type of dumping, and domestic producers invariably demand protection against any form of dumping. By so doing, they discourage imports (the "harassment thesis") and increase their own production and profits (rents). In some cases of persistent and sporadic dumping, the benefit to consumers from low prices may actually exceed the possible production losses of domestic producers.

In 2011, the United States asked the WTO to strike down China's heavy antidumping duties on U.S. chicken products; the United States and the European Union set antidumping and anti-subsidy duties on Chinese coated paper (used in high-end catalogues and magazines); the United States asked the WTO to review Chinese measures restricting market access to U.S. suppliers of electronic payment services; and China itself imposed punitive duties of up to 22 percent on U.S. exports of SUVs to China.

5. Export Subsidies

Export subsidies are direct payments (or the granting of tax relief and subsidized loans) to the nation's exporters or potential exporters and/or low-interest loans to foreign buyers to stimulate the nation's exports. As such, export subsidies can be regarded as a form of dumping. Although export subsidies are illegal by international agreement, many nations provide them in disguised and not-so-disguised forms. For example, all major industrial nations give foreign buyers of the nation's exports low-interest loans to finance the purchase through agencies such as the U.S. Export–Import Bank. These low-interest credits finance about 2 percent of U.S. exports but a much larger percentage of Japan's, France's, and Germany's exports. Indeed, this is one of the most serious trade complaints that the United States has against other industrial countries today. The amount of the subsidy provided can be measured by the difference between the interest that would have been paid on a commercial loan and what in fact is paid at the subsidized rate.

6.6 Political Economy of Protectionism

1. Fallacious and Questionable Arguments for Protection

One fallacious argument is that trade restrictions are needed to protect domestic labor against cheap foreign labor. This argument is fallacious because even if domestic wages are higher than wages abroad, domestic labor costs can still be lower if the productivity of labor is sufficiently higher domestically than abroad. Even if this were not the case, mutually beneficial trade could still be based on comparative advantage, with the cheap-labor nation specializing in the production and exporting of labor-intensive commodities, and the expensive-labor nation specializing in the production and exporting of capital-intensive commodities (refer back to Section 2.4). Another fallacious argument for protection is the scientific tariff. This is the tariff rate that would make the price of imports equal to domestic prices and (so the argument goes) allow domestic producers to meet foreign competition. However, this would eliminate international price differences and trade in all commodities subject to such "scientific" tariffs. Two questionable arguments are that protection is needed (1) to reduce domestic unemployment and (2) to cure a deficit in the nation's balance of payments (i.e., the excess of the nation's expenditures abroad over its foreign earnings). Protection would reduce domestic unemployment and a balance-of-payments deficit by leading to the substitution of imports with domestic production. However, these are beggar-thy-neighbor arguments for protection because they come at the expense of other nations. Specifically, when protection is used to reduce domestic unemployment and the nation's balance-of-payments deficit, it causes greater unemployment and worsened balance of payments abroad. As a result, other nations are likely to retaliate, and all nations lose in the end.

2. The Infant-Industry and Other Qualified Arguments for Protection

One argument for protection that stands up to close economic scrutiny (but must nevertheless be qualified) is the infant-industry argument. It holds that a nation may have a potential comparative advantage in a commodity, but because of lack of know-how and the initial small level of output, the industry will not be set up or, if already started, cannot compete successfully with more established foreign firms. Temporary trade protection is then justified to establish and protect the domestic industry during its "infancy" until it can meet foreign competition, achieve economies of scale, and reflect the nation's long-run comparative advantage. At that time, protection is to be removed. However, for this argument to be valid, the return in the grown-up industry must be

sufficiently high also to offset the higher prices paid by domestic consumers of the commodity during the infancy period.

The infant-industry argument for protection is correct but requires several important qualifications which, together, take away most of its significance. First of all, it is clear that such an argument is more justified for developing nations (where capital markets may not function properly) than for industrial nations. Second, it may be difficult to identify which industry or potential industry qualifies for this treatment, and experience has shown that protection, once given, is difficult to remove. Third, and most important, what trade protection (say, in the form of an import tariff) can do, an equivalent production subsidy to the infant industry can do better. The reason is that a purely domestic distortion such as this should be overcome with a purely domestic policy (such as a direct production subsidy to the infant industry) rather than with a trade policy that also distorts relative prices and domestic consumption. A production subsidy is also a more direct form of aid and is easier to remove than an import tariff. One practical difficulty is that a subsidy requires revenues, rather than generating them as, for example, an import tariff does. But the principle remains.

The same general principle also holds for every other type of domestic distortion. For example, if an industry generates an external economy (i.e., a benefit to society at large, say, by training workers who then leave to work in other industries), there is likely to be underinvestment in the industry (because the industry does not receive the full benefit from its investments). One way to encourage the industry and confer greater external economies on society would be to restrict imports. This stimulates the industry, but it also increases the price of the product to domestic consumers. A better policy would be to provide a direct subsidy to the industry. This would stimulate the industry without the consumption distortion and loss to consumers that result from trade restrictions. Similarly, a direct tax would also be better than a tariff to discourage activities (such as automobile travel) that give rise to external diseconomies (pollution) because the tax does not distort relative prices and consumption.

Trade restrictions may be advocated to protect domestic industries important for national defense. But even in this case, direct production subsidies are generally better than tariff protection. Some tariffs can be regarded as "bargaining tariffs" that are to be used to induce other nations to agree to a mutual reduction in tariffs. Here, political scientists may be more qualified to judge how effective they are in achieving their intended purpose. The closest we come to a truly valid economic argument for protection is the optimum tariff discussed in Section 8.6. That is, if a nation is large enough to affect its terms of trade, the nation can exploit its market power and improve its terms of trade and welfare with an optimum tariff. However, other nations are likely to retaliate so that in the end of nations lose. Be that as it may, Broda, Limao, and Weinstein (2009) provide evidence that countries set higher tariffs on goods with lower export supply elasticities than on goods with higher supply elasticities.

Summary

The argument that tariffs are needed to protect domestic labor against cheap foreign labor and the "scientific tariff" is clearly fallacious. Two questionable beggar-thy-neighbor arguments are that protection is needed to reduce domestic unemployment and a deficit in the nation's balance of payments. A more valid argument for protection is the infant-industry argument. However, what trade protection can do, direct subsidies and taxes can do better in overcoming purely domestic distortions. The same is true for industries important for national defense. The closest we come to a valid economic argument for protection is the optimal tariff (which, however, invites retaliation). A quota is a direct quantitative restriction on imports or exports. An import quota has the same consumption and production effects as an (equivalent) import tariff. If the government auctions off import licenses to the highest bidder in a competitive market, the revenue effect also is the same. The adjustment to any shift in demand or supply occurs in the domestic price with an import quota and in the quantity of imports with a tariff. If import licenses are not auctioned off, they lead to monopoly profits and possible corruption. An import quota is in general more restrictive than an equivalent import tariff.

Keywords

- Dumping: It's when a country or company exports a product at a price that is lower in the foreign importing market than the price in the exporter's domestic market.
- Nontariff trade barriers (NTB's): Non-tariff barriers to trade are trade barriers that restrict imports or exports of goods or services through mechanisms other than the simple imposition of tariffs.
- Tariff: A tariff is a tax imposed by the government of a country or by a supranational union on imports or exports of goods.
- Specific Duty. Specific duties are levied per physical unit of the imported commodity, as Rs X per TV, as cloth per metre, as oil per litre, as fertilizers per tonne
- Single Column Tariff: When a uniform rate of duty is imposed on all similar commodities irrespective of the country from which they are imported, it is called single-column tariff.

Self Assessment

1. The Protectionist Policy _____

A. Encourages international specialization,
B. Promotes global trade,
C. Prevents dumping
D. Reduces government's interference in trade

2. _____ is/ are controversies in trade policy

A. Labour standards,
B. IPR,
C. Environment,
D. All of these

3. Which one of the following is not a Non-Tariff Barrier (NTB)?

A. Voluntary export restriction,
B. Local content requirement
C. Administrative barrier
D. Tariff rate quotas

4. The reduction in domestic consumption due to imposition of quota results in

A. Increase in government revenue,
B. Increase in consumer's surplus
C. Loss of social welfare,
D. Increase in social welfare

5. Tariff is expressed as either a specific or an ad valorem rate, whichever is higher, is known as_____

A. General Tariff,
B. Mixed Tariff,

C. Compound Tariff,

D. Countervailing Tariff

6. Which one of the following is not an objective of commercial trade policy ?

A. To preserve foreign exchange reserves

B. To determine the rate of interest

C. To protect domestic industries from foreign competition

D. To maintain favourable balance of payment

7. Which one of the following NTBs prevents free movement of capital between countries? (a) Preferential government procurement

A. Exchange controls

B. Domestic subsidies

C. Local content requirement

D. None of these

8. Tariff rate quotas are

A. combination of tariffs and quotas

B. based on the value of the traded commodity only

C. based on the quantity or volume of the quantity only

D. low tariff rate on an initial quantity of import within the quota limit and very high tariff rate on imports above the initial amount

9. A system that makes it mandatory for domestic producers to use some proportion of domestic raw material is known as

A. Mixing quota

B. Global quota

C. Allocated quota

D. Import licensing

10. Which of the following is not a NTB?

A. Voluntary export restrictions

B. Local content requirement

C. Administrative barriers

D. Tariff rate quotas

11. Countervailing tariffs specifically aim to

A. give preference to imports from a customs union

B. retaliate to a tariff imposed by a trading partner

C. neutralize the effects of subsides given to the producers in the exporting countries

D. counter dumping by other countries

12. Bilateral agreements that restrict exports are called —

A. transit tariffs
B. voluntary export restraints
C. orderly marketing arrangements
D. export quotas

13. The Protectionist Policy results in efficient allocation of resources.

A. True
B. False

14. The import quotas are more effective than tariffs

A. True
B. False

15. The Protectionist Policy results in efficient allocation of resources.

A. True
B. False

Answers for Self Assessment

l.	C	2.	D	3.	D	4.	C	5.	B
6.	B	7.	B	8.	D	9.	A	10.	D
11.	C	12.	B	13.	B	14.	A	15.	B

Review Questions

1. What is an import quota? How is it mostly used today? What are the partial equilibrium effects of an import quota? How are they similar to and different from the effects of an equivalent import tariff.
2. What is meant by dumping? What are the different types of dumping? Why is dumping undertaken? What conditions are required to make dumping possible? Why does dumping usually lead to trade restrictions?
3. What do you mean by dumping? Explain the various types of dumping and the objectives of dumping.
4. What are tariffs? Explain the effects of a tariff on the terms of trade under general equilibrium analysis.
5. Explain the various types of tariffs. Show with the help of partial equilibrium diagram the price, protective, consumption, revenue and redistribution effects of a tariff.

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Web Links

http://www.citizen.org/trade

Unit 07: Rationale for Protection

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Summary

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Objectives

- Understand the meaning and importance of effective rate of protection
- why countries adopt protectionist measures;
- Rationalise import substitution industrialisation strate gy;

Introduction

Economists have always acknowledged the benefits of international trade. Gains from trade arise due to specialization in production along lines of comparative advantage, leading to efficient allocation of scarce resources within nations. Gains also arise from exchange between countries, with each country exporting the goods, which it produces relatively most efficiently and importing goods at a cost lower than that of domestic production.

Therefore, trade can potentially be welfare improving for the world as a whole. Yet, in practice, trade barriers restricting the cross-border flow of goods and services, are erected by virtually every trading nation in the world.

What justifies the use of protectionist measures, given the many benefits of free trade? What are the various ways in which countries practice trade protection?

7.1   Infant Industry Argument

The famous Listian "infant industry" argument in favour of protection gives enough inducement to under-developed countries in accelerating their pace of industrialization. There are some industries which can be fruitfully developed in countries provided they are protected from foreign competition. in the present, their cost of production may be more due to tha lack of certain basic facilities, but in due course of time, after the initial difficulties are overcome, their products would cost less. The future fruits of industrialization would more than compensate for the sacrifice undergone in the form of higher prices in the present. Thus, the argument is that "infant" industries

need protection from foreign competition till they attain adulthood. The period between infancy and adulthood is generally characterized by a transition from the agricultural to the industrial stage. Myrdal has assigned "four" special reasons for industrial protection in under-developed countries — the difficulties of finding demand to match new supply, the existence of surplus labour, the large rewards of individual investments in creating external economies, and the lop-sided internal price structure disfavouring industry." These reasons are inter-related and provide an "infant economy" case for protection to an under-developed country.

Its Limitations.

But is has its limitations. First, according to Nurkse, infant industry protection alone is an ineffective instrument of promoting economic development because it overlooks the problem of capital supply. Second, infant industry protection should not be given before the industry has been actually set up. As Nurkse said, "infant creation must take precedence over infant protection." Third, tariff protection cannot create or increase the supply of capital required by the infant industry. it can, however, make a contribution on the demand side by increasing the inducement to invest in the protected industry. But this argument is confined only to creating demand for import substitutes. Fourth, it is also doubtful whether the stress on import substitutes will be enough to lead to a balanced growth of the economy. For, without an overall growth of the economy, investment in the import competing industries will be very small. Nurkse cautions that too much reliance on import restrictions should be avoided because the import substitutes produced at home are costly and tend to reduce real income.6 Fifth, given that the infant industry has been created, it must satisfy a number of conditions for the policy of protection to be successful. it is essential that the industry would not develop without the help of protection and that eventually it would be able to stand on its own legs when protection could be removed. Above all, it should acquire enough skill and experience to produce at low costs. it implies that though in the initial stages there may be losses, yet in the future the industry should be in a position to realize sufficient saving in costs. Sixth, it is also difficult to decide the amount and the period of protection to be given to the infant industry. Seventh, the right selection of infant industries is somewhat uncertain.

7.2 Concept of Effective Protection

The principal objective of a tariff is to discourage imports in order to encourage domestic production of the protected industry. Until recently, the protective effects of a tariff were measured in terms of the official nominal rate of tariff (ad valorem) on the imports of final products. It was believed that a higher nominal rate of tariff would bring a larger increase in the output of the protected industry. But the height of various duties imposed on imports by a country is not likely to give a true picture of the degree of protection afforded by the nominal tariff rate. For the nominal tariff rate does not take into consideration the height of the duty on imported intermediate products and raw materials which are used in the domestic import competing industries. The theory of effective rate of protection takes into account duties levied on such raw materials and intermediate products. According to Balassa, "Under the usual assumptions of international immobility of labour and capital, the effective rate of duty will indicate the degree of protection of value added in the manufacturing process". Thus the effective protection rate expresses the relationship between the tariff and the value added. It measures the actual rate of protection that the nominal tariff rate provides to the domestic import competing industry. Thus, the effective rate of protection is the tariff on value added. The effective rate of protection is defined as the percentage increase in the value added of an industry per unit of output as a result of the tariff relative to the free trade situation but with the same exchange rate.

The effective rate of protection is measured by Corden's modified formula.

$$e_t = \frac{t_n - at_t}{1 - a}$$

where et is the effective rate, tn the nominal tariff rate on the final product, a is the ratio of the value of the imported input to the value of the final product in the absence of tariff, and t i the tariff rate on imported inputs, (1–a) is the proportion of the final production accounted for by value added.

Assumptions

The theory of effective rate of protection is based on the following assumptions:

1. Primary factors are available in fixed quantities.

2. They are immobile between countries.

3. Full employment is maintained through appropriate fiscal and monetary policies.

4. The physical input-output coefficients are fixed.

5. All tariffs are applied in a non-discriminatory manner.

6. The elasticities of demand for all exports and the elasticities of supply for all imports are infinite.

7. All traded goods continue to be traded even after tariffs so that the domestic price of each importable good is given by the foreign price plus tariff.

8. All inputs are traded.

Explanation

Given these assumptions, the difference between nominal and effective rates of protection can be explained with an example. Suppose a domestically manufactured colour TV set costs Rs. 5000. Of this, the unit value added or the contribution of domestic primary factors is Rs. 2000 (40% of the final product) and of imported inputs is Rs. 3000 (60% of the final product). Under free trade, all inputs are imported as world prices and an imported TV also sells at Rs. 5000 in the domestic market.

Now the government decides to protect the domestic TV industry by importing a nominal (ad valorem) tariff of 10% on an imported TV. Its price in the domestic market, rises to Rs. 5500 (Rs. 5000 original price plus Rs. 500 on account of import duty). Thus the domestic TV industry enjoys a nominal protection of 10%.* Assuming that there is no duty on imported inputs of TV, the unit value added of the domestic TV industry increases by the full amount of Rs. 500. Thus the unit value added increases from Rs. 2000 to Rs. 2500 (Rs. 2000 + Rs. 500), an increase of 25%. In this case, the effective rate of protection is 25% which exceeds the nominal rate of 10%.

Introducing the same information in the formula

$$e_t = \frac{t_n - at_i}{1 - a}$$

where 10% is the nominal tariff, 60% is the value of imported inputs in the final product and the tariff rate on imported inputs, ti = 0. It shows that ti = 0, et > tn.

Now suppose a 5% tariff is imposed on the imported TV inputs for the domestic industry, along with the nominal tariff of 10 per cent. This would cost the TV industry Rs. 150 per TV by raising the domestic prices of inputs from Rs. 3000 to Rs. 3150. This increases the unit value added of the industry by Rs. 350 (Rs. 500 from 10 per cent nominal tariff minus Rs. 150 from 5 per cent duty on imported inputs). The effective rate of protection is 17.5 per cent when the unit value added increases from Rs. 2000 to Rs. 2350.

It shows that if the nominal tariff on the final product is higher than on the imported inputs, the effective rate of protection is higher than both the nominal rates on the final goods and imported imputs : If tn >t1 , then et> tn >t1

If the nominal tariff on imported inputs equals the nominal tariff of 10 per cent on the final product, the effective rate of protection is also 10 per cent.

Thus if the nominal tariff rates on the final product and imported inputs are the same, the effective rate of protection equals the nominal rates:

If tn = ti , then et = tn = ti.

Suppose the tariff on imported inputs is raised to 15 per cent. The unit value added increases by Rs. 50 (Rs. 500 from 10 per cent nominal tariff on the final product minus Rs. 450 from 15 per cent duty on imported inputs). The effective rate of protection is then 2.5 per cent with the increase in the unit value added from Rs. 2000 to Rs. 2050*.

It shows that if the nominal tariff on the imported inputs is greater that on the final product, the effective rate of protection is less than both the nominal rates: If tn < t., then et < t < t. Lastly, we take a case where the effective rate of protection may be negative. Suppose the nominal rate on the

imported inputs is 20 per cent. This means that the unit value added declines by Rs. 100 (Rs. 500 Rs. 600). As a result, the effective rate of protection is minus 5 per cent.

This shows that if tn < at1, then et < 0

The effective rate of protection is illustrated diagrammatically in Fig. 1 where in order to simplify the diagram the demand curve is not shown because it is not affected by the imposition of a tariff. The horizontal axis measures the amount of labour and the quantity of TV. The vertical axis measures the wage of labour and the price of TV.
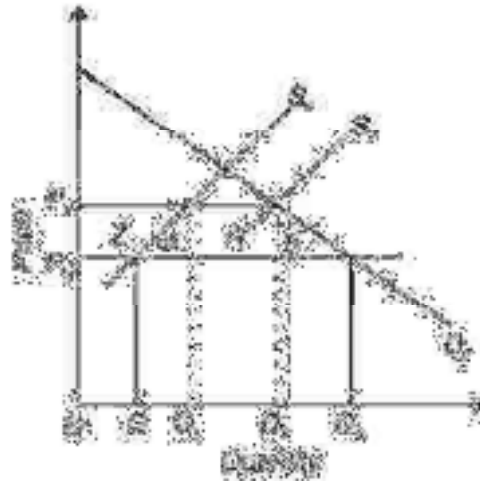
Assuming that there is only one primary factor, labour, its supply curve is shown as SL. S1 is the supply curve for the final product TV. OP is the constant world price under free trade at which the domestic production of TV and the amount of labour used equal OL. The unit value added is given by LB/LA. When a nominal tariff is imposed on the final product, TV, its domestic price rises from OP to OP2 and the domestic production of TV increases from OL to OQ2. With the imposition of an additional nominal tariff on the imported inputs of TV, the unit cost rises which is shown by the shifting of the supply curve S1 upwards to S2. Consequently, the production of TV falls from OQ2 to OQ1. The net increase in the production of TV is equal to LQ1. This is due to PP1 — the difference between increase in the domestic price of TV equal to PP2 and the increase in the unit cost of production equal to P1P2, that is, PP1 = PP2P1P2. The effective rate of protection is obtained by dividing PP1 by the value added or the contribution of the primary factor, labour, in our example. Thus,

$$l_t = \frac{PP_1}{LB} = \frac{CD}{Q_1D}$$

Its Limitations

The theory of effective rate of protection has a number of theoretical and practical limitations which are discussed below:

1. Restrictive Assumptions. The theory of effective rate is based on restrictive assumptions. If some of the assumptions like fixed input-output coefficients and availability of primary factors in fixed quantities are relaxed, the actual unit value added may fall below that given by the effective rate. Moreover, the assumption that the supply of imported inputs is infinite does not hold in large countries.

2. Partial Equilibrium Nature. The main theoretical limitation relates to its partial equilibrium nature. The theory assumes a fixed relationship between each input and the final product in calculating the effective rate. In fact, when relative factor price change, the values of inputs also change. It is, therefore, not possible to calculate the correct value of the effective rate.

3. Drawback in Index. The basic drawback in the effective rate of protection index is that it measures the effect of the effective protection upon particular industries without taking into account its indirect effects on other industries.

4. Difficulties of Measurement. Another difficulty arises in measuring the height of a tariff and comparing it with other country. If the method of weighted average is used no account can be taken of in the country's trade when the tariff is so high that imports of such goods totally stop. If the method of unweighted average is used, duties on goods with little importance in the country's trade rank almost equal with the major imports.

5. Malallocation of Resources. Effective rates of protection on industries lead to resource allocation. However, they may bring about malallocation of resources. The prospect of receiving higher rewards may lead to the flow of primary factors into industries with the highest protective rates and away from industries with the least protective rates or negative protective rates, and from non-traded activities. Thus, resources are likely to be misallocated.

6. Ignores Non-traded Inputs. This concept assumes that all inputs are traded. This is unrealistic because some inputs are always non-traded. As a result, their prices enter into the value of total output and inputs. If the effect of effective protection on non-traded inputs is not taken into account, the rates of effective protection will be overestimated.

Its Importance

The importance of the concept of effective rate of protection lies in the following.

1. For Producers. The effective tariff is important for producers in their production decisions when a tariff is imposed on imported inputs and raw materials. That is why, producers care about the effective protection they receive for their industries rather than about the nominal protection.

2. Indicator of Factor Income. The theory of effective protection takes into account the value added created by primary factors of production. Effective rates are the indicators of income distribution in the short because value added is what these factors receive.

3. Degree of Protection. The effective rate of protection is based on the concept of value added. Value added being the difference between the value of outputs and inputs, the effective rate of protection is important in measuring the degree of protection not only on output but also on inputs.

4. Volume of Trade. When the nominal tariff rate is reduced on imported raw materials and inputs for use in domestic industries, it is intended to expand the volume of trade. But it leads to a rise in the effective tariff rate of the industry using them. This may adversely affect the volume of trade of the protected industry.

5. Tariff Structure. The concept of effective rate of protection helps in understanding the nature of tariff structure of a country. Usually, the nominal tariff rates are low for raw materials and high for finished goods. Keeping the interest of producers, the effective tariff on raw materials is kept low.

6. Infant Industries. To expand and protect infant industries, the concept of effective tariff suggests that the country should reduce tariff rates on imported raw materials and intermediate products instead of imposing high nominal tariff rates.

7. Resource Allocation. The importance of the effective rate of protection also lies in shedding light on "the direction of the resource allocation effects of a protection structure". The effect of any tariff structure is to move resources from industries with low effective rates of protection to industries with high rates because what resources earn in an industry is the value added. Therefore, to find out the effects of a country's tariff structure on its resource allocation among the various industries, economists calculate the effective protective rates for each industry.

8. For Government. Government officials who bargain with foreign countries on tariffs use effective protective rate calculations to discover the effects of proposed tariff rates on the various industries.

Conclusion

The theory of effective rate of protection has been empirically studied by Balassa, Johnson and a few other economists, Balassa's study shows that the effective rates in some of the industrial countries are substantially larger than nominal rates. Thus, industrial countries depend more on tariffs for protection than on other protective devices. Johnson's* study reveals that the gap between effective and nominal tariff rates is particularly large in the case of products having special interest for developing countries. Raw materials from developing countries are allowed duty free or at very low rates, semi-manufactured goods at higher rates, and fully manufactured goods at extremely

high tariff rates. The latter products enjoy high effective rates of protection in industrial countries. This tendency naturally discourages the expansion of processing and manufacturing industries in developing countries.

The theory of effective rate of protection shows that the reduction on nominal tariff rate of an equal percentage brings about different degrees of changes in the effective rates of protection. It is, therefore, not advisable for developing countries to argue and demand across-the-board tariff reductions on all products from industrial countries. If the former insists on reductions in tariff on their primary products, the effective rate of protection will increase against their manufactures. In such a situation, they will be at a disadvantage vis-a-vis developed countries because exports of manufactures are more important to them for long-run development.

7.3 Political Economy of Non-Trade Barriers (NTB)

Non-Tariff Barriers (NTBs), unlike tariffs, may impose direct restrictions on the inflow of imported goods. For instance, conventional NTBs like import quotas directly restrict the quantum of imports into the domestic country. While other NTBs discussed below restrict the flow of traded goods in a more indirect manner.

From the following discussion you will see how countries are resorting to newer, more indirect forms of NTBs, most often in order to circumvent the directives of multilateral trade agreements like the WTO.

1. Quotas

Import quotas impose direct restrictions on the quantum of imports into a country. In practice quotas are administered through a system of import licenses. Only license holders are given permission to import specified quantities of the imported good into the domestic market. You will see that with a quota the domestic price of.an imported good will always be higher than its world market price. License holders buy the imported goods at world market prices and then sell at higher prices in the domestic market. In what follows we will examine the impact of an import quota under different market structures in the domestic economy. We first discuss the case of perfectly competitive markets and then that of monopoly.

(i) Import Quotas with Perfect Competition

Figure 2 demonstrates the effect of an import quota when markets are perfectly competitive. D and S represent the demand and supply curves for the good before quota imposition. Under free trade, the world price Pw prevails and total domestic production is Q1, demand is Q2, and Q, Q2 amount is imported. Now suppose an import quota is imposed, which restricts imports to Q, Q3 (where, Q1 Q3 < Q1 42). Immediately with quota imposition, at the world price Pw, domestic demand falls short of total domestic production plus imports. This excess domestic demand drives up prices in the domestic market, till the market clears

The quota effectively shifts the domestic supply curve to S', by the amount of the quota. The economy moves to the new equilibrium E', where price has risen from Pw to P', domestic production has increased from Q, to Q,, while domestic demand has fallen from Q2 to Q5. At E', imports, restricted by the quota, are equal to the amount Q4 Q5 (note that Q,QI = Q,Q, = import quota).

A tariff rate equal to P'- Pw, is the tariff equivalent of the quota. It would have restricted imports to the same level as the quota and had the same effect on domestic prices. However, it may not always be feasible to implement the tariff equivalent of a quota, as the rate may be too high to be acceptable.

You should see that as in case of a tariff, a quota involves a loss in consumer surplus equal to the area (a + b + c + d). This is offset by a rise in producer surplus equal to the area a. But an important difference between tariffs and quotas arises from the fact that with a quota the government does not earn revenues as in case of a tariff. The area c therefore does not accrue to the government, rather it represents the quota rent, which may be captured by the import-license holders, who buy at the world price Pw and sell at a higher price P', making a profit of (P' - Pw) per unit of imports. If c accrues to the license holders and is counted as part of social gain, then the social loss from the quota is equal to the area (b+ d), same as in case of a tariff.

Often foreign exporters have the right to sell directly in the domestic market. In that case the quota rent c would accrue to foreigners and it would be a social loss from the domestic country's point of view.

Another disturbing possibility, and one that is often observed in practice, is that the quota rent may not accrue to license holders. Rather it may be dissipated in rent-seeking activities, like paying bribes to acquire import licenses and so on. In that case, the area c would be a social loss and the total cost imposed by the quota would equal the area (b+c+d), which is more than in case of an equivalent tariff. In fact quota rents have been estimated to be as high as 24% of GNP in developing countries like Kenya. Governments in developing countries have the option to auction import licenses. A competitive bidding process would drive the price of licenses up to (P' - Pw) per unit of imports and the government would earn revenue equal to the area c. If this process worked smoothly, the effects of a tariff and quota would be equivalent. However, developing country experiences demonstrate that in reality the auction process may also run into difficulties. The auctions may not be competitive and collusion among bidders might subvert the entire process.

(ii) Import Quotas with Monopoly

When there is a domestic monopoly, an import quota leads to greater loss in social welfare, as compared to perfect competition. In fact we will see that in the presence of monopoly, an import tariff should be preferred to a quota from the efficiency and social welfare point of view.

When there is a tariff t, imports are freely available at a price (Pw + t). So, the monopolist cannot charge a higher price than this level, for if he did domestic consumers would go for imports and his sales would be reduced to zero. Thus, a tariff effectively imposes a price ceiling. However, with a quota, the monopolist can charge a price higher than the import price. In this case he will not lose his entire market share, since imports cannot exceed the limit set by the quota. Thus, a quota preserves the monopolist's price setting power to a large extent.

Under free trade D. monopolist and the domestic price of the good is the world imports to the amount Q1, Q2. With the quota the demand curve facing the monopolist shifts inwards by the amount of the quota, at all prices above Pw, because imports have reduced the monopolist's market by Q1, Q2. Fig- 3 Post quota imposition, the relevant marginal revenue curve facing the mon opolist is NIR, corresponding to the new demand curve.

In this situation the monopolist will maximise profits by producing an output of Qm, at which marginal revenue equals marginal cost. This output will be sold at the price Pm, read off the demand curve. Now (Pm - Pw) is the tariff equivalent of the quota or the quota rent earned by the import license holders.

Note that with perfect competition in the domestic market, the MC curve would have been the supply curve, and the market price would have been P' and output, Q'. Clearly with a monopoly the outcome is more inefficient, compared to perfect competition. The monopoly output is lower (Q m < Q') and price is higher (Pm >P'), leading to greater welfare losses.

From this analysis it should be clear to you why tariffs are preferred to quotas, especially when the domestic producer wields monopoly power. In fact GATT negotiations have tried to phase out quantitative restrictions and replace quotas with tariffs.

2. Other Non-Tariff Barriers

The following are some of the other important NTBs commonly used by countries following protectionist policies:

1. Exchange controls: Exchange controls are restrictions imposed by countries' Central Banks that directly limit domestic residents' ability to acquire foreign currency in exchange for domestic currency. For instance, one method of imposing exchange controls, involved acquiring the Central Bank's permission to hold foreign currency bank accounts.

2. Import deposit schemes: These are rules imposed by countries' Central Policy Banks, which tend to restrict imports by making them more expensive. For instance, under the rules importers are required to deposit a certain amount (usually in proportion to the value of the imported good) with the Central Bank, which effectively raises the cost of importing.

3. Health and safety standards: Often importing countries insist that imported goods meet certain minimum health, safety and environmental standards. Meeting the standards would

obviously raise costs for the exporting country. Presumably the underlying motive for standard imposition is to safeguard the health and general welfare of domestic residents of the importing nation. However, in practice these standards are often used by developed nations to restrict imports originating from low-wage developing countries. For instance, faced with cheap manufactures imports from low-wage countries like Malaysia, Indonesia and Thailand, developed countries are now insisting that these counties comply with certain minimum labour and environmental standards, which would raise their costs of production.

4. Customs valuation procedure: Under this procedure the importing country would artificially enhance the value of the imported goods under some pretext, which would raise the duty on it, under a system of ad valorem tariffs. For instance, the example of the US valuing certain chemical imports at the 'American selling price' (rather than at the 'invoice' price or the 'world market' price) in the post-war period. However, this practice was discontinued since the Tokyo Round of negotiations.

5. Local content requirements: This is a practice followed especially in developing countries, which requires that some stipulated portion of a final good be produced domestically. Or it may be stated that a certain specified fraction of the final goods price must represent domestic value added. The underlying logic is to promote local production of certain intermediate goods. From the importing firms viewpoint, there is no restriction on imports. For they can import more, as long as they also buy more from local firms. From the domestic intermediate industries' point of view a local content requirement provides trade protection in the same way as an import quota.

7.4 Regionalism vs. Multilateralism

The growing popularity of regional trading arrangements (RTAs) has ignited concerns that these agreements may undermine the global trading system by discriminating against imports and investments from non-members. Critics of regional arrangements argue that this practice would violate a core principle of the World Trade Organization; that all imports from member states should face the same barriers to trade. Furthermore, eliminating tariffs on imported goods from some countries but not others can be counter -productive. If imports from high-cost producers inside the agreement replace goods from low-cost producers outside the agreement, the importing country will not only lose tariff revenue but will wind up with imports that cost nearly as much as before.

Supporters of RTAs maintain that these agreements have enabled countries to liberalize trade and investment barriers to a far greater degree than multilateral trade negotiations allow. Proponents also argue that regional agreements have gone beyond trade liberalization, taking important steps toward harmonizing regulations, adopting minimum standards For regulations, and Recognising other countries' standards and practices - trends that enhance market access. Some empirical evidence supports each view. Regional arrangements seem to have generated welfare gains for participants, with small, possibly negative spillovers onto the rest of the world.

Should future research suggest that RTAs are having adverse effects on the world trading system, the arrangements will have to be aligned with the non-discrimination principle of the global trading system. One response is to pursue further multilateral trade liberalization to limit the margin of preference regional agreements create. Policy-makers who believe that their country is suffering because of the rise of RTAs elsewhere thus have a further incentive to support multilateral trade liberalization.

A second response is to alter the WTO's agreement on regional trading arrangements to commit members to phase out any preferential market access within a certain time frame. Such a provision ensures that preferential market access is only a temporary feature of any regional initiative. To make this approach more attractive to members of a regional initiative, they could be offered credit for the reduction in trade barriers, which could be used in future multilateral trade negotiations.

A third response is to negotiate a "model accession clause" for the principal types of RTA's, Such clauses contain a set of conditions non-members must meet in order to become members. Meeting the conditions automatically triggers a negotiation for accession to the regional agreement. These clauses could also ensure that the trade barriers non-members face do not rise when an RTA is established or when new members are admitted.

7.5 Regional Integration Among Developing Countries-SAARC

Regional integration means the development of piecemeal non-political cooperative organisations which are established most effectively at the regional level and in the economic, technical, scientific, social and cultural spheres. These sectors are functional sectors in which states can develop mutually cooperative institutional relations without jeopardizing their national sovereignties. Mutual advantages the basis of such regional functional organisations serves as a useful way of securing the desired goals of development in these sectors. The realization towards such thinking has led to the emergence of a definite trend towards regional integration. In the modern period of history, with the conceptualization and practical establishment of sovereign states that comprise the family of nations, the trend towards integration, cooperation and regularization of international relations has taken on new forms and greater urgency.

Regional integration can also be described as inter-state integration. It is an instrumentality of the modern multi-state system. In its most elementary form, the term denotes both the act of cooperation among the states for enhancing common purpose, institutions and the methods they employ to achieve this objective. In other words, regional integration means the process towards an end product of integration of nation-states. It is the process by which a group of nation states come forward to establish institutionalised cooperation among themselves. The organized institutions or mechanisms that these nation-states establish for conducting their relations also form a part of regional integration. Such institutional mechanisms afford a vehicle for arriving at collaborative determination of policies and actions. Each integrated institution amalgamates the individual members into a whole, their inter-relations and influences their international behaviour. By acknowledging and respecting the appropriate place of each unit of the whole system, the integrated institution not only maintains stability but also secures cooperation for development.

The South Asian Association for Regional Cooperation (SAARC)

While ASEAN prospered in the South Eastern region of the Asian continent, another regional forum emerged in South Asia almost on the pattern of ASEAN and this regional association of South Asian countries is known as SAARC. The seven countries of South Asia namely India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives joined hands to form a regional forum modelled on the lines of ASEAN to serve as an agency or institution for promoting economic and cultural cooperation among the members.

Its aims are :(i) the development of social, economic, cultural and technical cooperation among the member countries (ii) it declared that the guiding principles of will be to respect the principles of sovereign equality, independence, integrity and noninterference in each others affairs (iii) it was also stated that decisions at all levels shall be taken on the basis of consensus and that bilateral and contentious issues shall be excluded from the deliberations (iv) it was further accepted that the regional cooperation shall be complementary and supplementary to the bilateral and multilateral cooperation among the member states.

Regarding the organsational set up, the Charter stated that the heads of the states or governments shall meet annually and a Council of Ministers consisting of foreign ministers of the member states shall be constituted to formulate policies, to review the progress of the cooperation, to establish additional mechanisms and to decide on matters of general interest. This Council of Ministers shall be assisted by the Committee of the Foreign Secretaries of the member states. It also laid down the setting up of Technical Committee, comprising of the representatives of member states for implementing, coordinating and monitoring of Programmes and Action Committee for the implementation of projects involving more than two states. It was also affirmed that a Secretariat for the Association shall be established at an appropriate time which is presently functioning in Kathmandu in Nepal.

7.6 Import Substitution and Industrialization

In order to understand the rationale for Import Substitution Industrialization strategy, it is important to know why this kind of industrialization strategy is needed? What were the appropriate tools used for this strategy. But let us first learn why developing countries needed industrialization at first place.

Economists trying to devise a strategy for development at the end of the Second World War took account of the dependence of almost all developing countries on exports of primary products. Prebisch, among others, argued that expansion of primary production and exports would not lead to development. Due to low income and price elasticities of demand for such products, expansion of export volumes would not result in a corresponding increase in export earnings as prices will decline. Irnport payments, on the other hand, would increase with rising imports of capital goods as investments increased in the attempt to raise growth, because these countries did not have a significant production of capital goods. So, countries would face worsening terms of trade and balance of payments (BOP) crisis when they tried to accelerate their growth. The BOP deficits would force a cutback in investment plans id slow down growth. Since development could not be based on growth of primary output it was necessary to base development on industrialization.

A further argument as given by Rosenstein-Rodan in favour of industrialization in over-populated countries was that land pressure in these countries bad resulted in very low labour productivity and prospects for agricultural growth were very limited. industrialization was the only way to absorb the surplus labour force in agriculture and grow.

Why Import Substituting Industrialization?

Industrialization based on producing import substitutes rather than producing for exports was recommended. Such import substituting industrialization would tackle many of the constraints to faster growth. Nurkse had argued that one of the factors limiting investment in developing countries was lack of demand. But if imports were restricted, it would create demand for previously imported goods, so entrepreneurs could be depended upon to invest in import substituting industries. Also, economists were in general pessimistic about prospects of the world economy based on the experience of the inter-war years. They expected the world economy to grow very slowly; there was supposed to be a bias towards stagnation. Economists like Nurkse also expected the continuation of the pre-Second World War pattern of countries adopting extensive restricts on trade, particularly, on exports of labour-intensive goods from developing countries. Furthermore, developing countries were expected to need? t me to develop the skilled and productive labour force necessary to be competitive in the world market. For all these reasons, many economists recommend the adoption of an IS1 strategy for development.

Appropriate Tools for Implementing an IS1 Strategy

Important policy issues in implementing the IS1 strategy were what instruments to use and who was to be responsible for investment?

Countries tended to adopt quantitative restrictions (QRs) to curtail imports. This was because QRs were believed to provide more certain signals to prospective investors in the protected industries. The impact of tariff protection could be uncertain as prices might fluctuate. (You should revise the discussion of tariffs and quotas from Unit 4 to help you understand this point.)

Furthermore, most countries adopted an import substitution strategy in consumer goods industries, with the private sector playing the leading role in undertaking investments. It was believed that stoppage of consumer goods imports would lead the transnational corporations (TNCs) who were supplying the imported goods from abroad to undertake the production of similar goods in the developing country itself, thereby solving the problems of adequacy of investible funds, technology transfer and of shortages of entrepreneurship.

A few countries, mainly India, also undertook import substitution in capital goods industries under the aegis of the state. such state sponsored industrialization raised more complex issues of generating sufficient investible funds as well as getting the technology to establish the plants to produce the capital goods.

Summary

There is no denying the fact that the virtues of regional integration are manifold. Through participation in regional integration organisations, the nation-states can secure increased economic growth rates. The rapid economic growth registered by the Western European states offers a matchless example. Regional integration helps nation-states in invigorating in international relations besides being helpful in resolving conflicts among themselves. Socio-economic and cultural integration can always lead to a gradual political integration which, in turn, can in lead to the emergence of a World Federation. Besides, in this age of ever-increasing interdependence, regional integration can help the states to achieve their desired objectives and goals without losing their identities or compromising their prestige. Regional integration, quite successful as it is in different parts of the world, can certainly lead to peace, prosperity, development and stability in international relations thereby reducing chances of war among different states.

The integration of Western Europe bears out the fact that regional integration can lead to all round development and prosperity. It must be accepted as a healthy trend. It offers a meeting ground for the supporters of both nationalism and internationalism. It can secure the benefits of progress through mutual cooperation, collaboration and accommodation in international relations. However, several negative and hindering trends like Cold War, security alliances, militarism and several vital international problems like the issue of NIEO the increasing gap between the rich and the poor nations, the failure to achieve disarmament and arms control, continued love for narrowly conceived goals of nationalism etc., are bound to hinder the strengthening of the trend. towards regional integration. Nevertheless, the process of regional economic integration helps in enhancing and building healthy international relations without loss of sovereignty of states if that is not in narrower sense.

Keywords

- Quota: A quantitative restriction on the quantum of imports permissible, that is often administered via the distribution of import licenses.
- Import Substituting Industrialization (ISI): It is a strategy for economic development based oh replacing imports with domestic production.
- Effective Rate of Protection: the effective rate of protection (ERP) is a measure of the total effect of the entire tariff structure on the value added per unit of output in each industry, when both intermediate and final goods are imported.
- Regionalism: Regionalism is a political ideology that seeks to increase the political power, influence and self-determination of the people of one or more subnational regions.
- Multilateralism: While unilateralism is when one country acts alone and bilateralism is when two countries work in partnership, multilateralism is usually defined as collaboration between several countries in pursuit of a common goal, where other parties such as civil society or the private sector may also be involved.

Self Assessment

1. An import quota is a

A. legal limit on the quantity of a good that can be imported per year.
B. legal requirement that a specified percentage of a final good's value must be produced domestically.
C. legal requirements that exports to a specific country must exceed a specific value before the country's product may be imported.
D. None of the above

2. The primary difference between an import tariff and an import quota is that

A. tariffs cause prices to rise, but quotas do not.

B. quotas cause prices to rise, but tariffs do not.

C. tariff revenues go to government, but quotas benefit those with the right to sell foreign goods domestically.

D. None of the above

3. A tariff that is levied as a fixed charge per unit of imports is known as a

A. Specific tariff

B. Ad- valorem tariff

C. Import tariff

D. Export tariff.

4. A government's restriction on the quantity of imports of a country is known as

A. Export quota

B. Import quota

C. Import rent.

D. Embargo.

5. Specific tariffs are collected as

A. Fixed amount of money per unit traded

B. A percentage of the price of the product

C. A percentage on the quantity of imports

D. All of the above.

6. Most tariffs have

A. only revenue effects

B. only protective effects

C. both protective and revenue effects

D. neither protective or revenue effects

7. The effective rate of protection

A. distinguishes between tariffs that are effective and those that are ineffective

B. is the minimum level at which a tariff becomes effective in limiting imports

C. shows how effective a tariff is in raising revenue for the government

D. shows the increase in value added for domestic production that a particular tariff structure makes possible, in percentage terms

8. Quota is very-----

A. effective

B. ineffective

C. sometimes effective

D. none of the above.

9. An Infant Industry argument promotes the idea of protection from foreign competition.

A. True

B. False

10. The Protectionist Policy results in efficient allocation of resources.

A. False

B. True

11. SAARC was formed in

A. 1995,

B. 1985,

C. 1980,

D. 1990

12. Regional trade agreement is treaty signed by countries to____

A. Encourage free movement of goods and services across borders

B. Encourage free movement of goods and services within borders

C. Discourage free movement of goods and services across borders

D. None of the above

13. Which one of the following is not a Non-Tariff Barrier (NTB)?

A. Voluntary export restriction,

B. Local content requirement

C. Administrative barrier

D. Tariff rate quotas

14. The reduction in domestic consumption due to imposition of quota results in

A. Increase in government revenue,

B. Increase in consumer's surplus

C. Loss of social welfare,

D. Increase in social welfare

15. Tariff is expressed as either a specific or an ad valorem rate, whichever is higher, is known as_____

A. General Tariff,

B. Mixed Tariff,

C. Compound Tariff,

D. Countervailing Tariff

Answers for Self Assessment

l.	A	2.	C	3.	A	4.	B	5.	A
6.	C	7.	D	8.	A	9.	A	10.	A
11.	B	12.	A	13.	D	14.	C	15.	B

Review Questions

1. What strategy was adopted by developing countries for industrialization? Discuss
2. Critically examine different models across the world in developing regional integration
3. What is the relation between the infant industry and the market failure arguments for protection?
4. Do you think developing countries should use protectionist measures to attract inflows of foreign direct investment?
5. What do you mean by effective rate of protection? Explain with examples how is it different from nominal rate of protection.
6. Distinguish between nominal and effective rate of protection. Explain the limitations of the effective rate of protection. What are its implications for developing countries?

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Unit 08: The Political Economy of Non-Tariff Barriers and their Implications

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Objectives

After reading this Unit students will be able to:

- To protect domestic industries or certain other sectors of the economy from foreign competition;
- Describe an optimum tariff and Effective tariff

Introduction

We have seen in Part One that free trade maximizes world output and benefits all nations. However, practically all nations impose some restrictions on the free flow of international trade. Since these restrictions and regulations deal with the nation's trade or commerce, they are generally known as trade or commercial policies. While trade restrictions are invariably rationalized in terms of national welfare, in reality they are usually advocated by those special groups in the nation that stand to benefit from such restrictions.

The most important type of trade restriction has historically been the tariff. A tariff is a tax or duty levied on the traded commodity as it crosses a national boundary. In this chapter we deal with tariffs, and in the next chapter we discuss other trade restrictions. An import tariff is a duty on the imported commodity, while an export tariff is a duty on the exported commodity. Import tariffs are more important than export tariffs, and most of our discussion will deal with import tariffs. Export tariffs are prohibited by the U.S. Constitution but are often applied by developing countries on their traditional exports (such as Ghana on its cocoa and Brazil on its coffee) to get better prices and raise revenues. Developing nations rely heavily on export tariffs to raise revenues because of their ease of collection. Conversely, industrial countries invariably impose tariffs or other trade restrictions to protect some (usually labor-intensive) industry, while using mostly income taxes to raise revenues.

Tariffs can be ad valorem, specific, or compound. The ad valorem tariff is expressed as a fixed percentage of the value of the traded commodity. The specific tariff is expressed as a fixed sum per physical unit of the traded commodity. Finally, a compound tariff is a combination of an ad valorem and a specific tariff. For example, a 10 percent ad valorem tariff on bicycles would result in the payment to customs officials of the sum of $10 on each $100 imported bicycle and the sum of

$20 on each $200 imported bicycle. On the other hand, a specific tariff of $10 on imported bicycles means that customs officials collect the fixed sum of $10 on each imported bicycle regardless of its price. Finally, a compound duty of 5 percent ad valorem and a specific duty of $10 on imported bicycles would result in the collection by customs officials of the sum of $15 on each $100 bicycle and $20 on each $200 imported bicycle. The United States uses the ad valorem and the specific tariff with about equal frequency, whereas European countries rely mainly on the ad valorem tariff. Most of our presentation in this chapter will be in terms of ad valorem import tariffs.

8.1   Tariff Barriers

Tariffs in international trade refer to the duties or taxes imposed on internationally traded products when they cross the national borders.

Tariff is a very important instrument of trade protection. However, mostly because of the efforts of the GATT/WTO aimed at trade liberalisation, in the industrial countries, there has been a substantial reduction in the tariffs on manufactured goods over the last five decades. Although the tariff rates are still fairly high in the developing countries, many of them have also been progressively reducing the tariff levels.

Tariffs are generally regarded as less restrictive than other methods of protection like quantitative restrictions. Therefore, organisations like the WTO generally prefer tariff to non-tariff barriers.

Classification of Tariffs

There are different ways of classifying tariffs.

On the basis of the origin and destination of the goods crossing the national boundary, tariffs may be classified into the following three categories:

Export Duties An export duty is a tax imposed on a commodity originating from the duty-levying country destined for some other country.

Import Duties An import duty is a tax imposed on a commodity originating abroad and destined for the duty-levying country.

Transit Duties A transit duty is a tax imposed on a commodity crossing the national frontier originating from and destined for other countries.

There is a three-fold classification on the basis for quantification of the tariff:

Specific Duties A specific duty is a flat sum per physical unit of the commodity imported or exported. Thus, a specific import duty is a fixed amount of duty levied upon each unit of the commodity imported.

Ad-Valorem Duties Ad-Valorem duties are levied as a fixed percentage of the value of the commodity imported/exported. Thus, while the specific duty is based on the quantum of the commodity imported/exported, the ad-valorem duty is based on the value of the commodity imported/exported.

Compound Duties When a commodity is subject to both specific and ad-valorem duties, the tariff is generally referred to as compound duty.

With respect to its application between different countries, the tariff system may be classified into the following three types:

Single-Column Tariff The single-column, also known as uni-linear tariff system, provides a uniform rate of duty for all like commodities without making any discrimination between countries.

Double-Column Tariff: Under the double-column tariff system there are two rates of duty on some or all commodities. Thus, the double-column tariff discriminates between countries.

The double-column tariff system may be broadly divided into

(a) general and conventional tariff and

(b) maximum and minimum tariff.

The general and conventional tariff system consists of two schedules of tariffs the general and the conventional. The general schedule is fixed by the legislature at the start, while the conventional

schedule results from the conclusion of commercial treaties with other countries. The maximum and minimum system consists of two autonomously determined schedules of tariff the maximum and the minimum. The minimum schedule applies to those countries who have obtained the concession as a result of the treaty or through MFN (most favoured nation) pledge and the maximum schedule applies to all other countries.

Triple-Column Tariff The triple-column tariff system consists of three autonomously determined tariff schedules-the general, the intermediate and the preferential. The general and intermediate rates are similar to the maximum and minimum rates mentioned above under the double-column tariff system. The preferential rate was generally applied in the case of trade between the mother country and its colonies.

With reference to the purpose they serve, tariffs may be classified into the following categories:

Revenue Tariff Sometimes the main intention of the government in imposing tariff may be to obtain revenue. When raising revenue is the primary motive, the rates of duty are generally low lest imports be highly discouraged, thus defeating the objective of mobilizing revenue for the government. Revenue tariffs tend to fall on articles of mass consumption.

Protective Tariff Protective tariff is intended primarily to accord protection to domestic industries from foreign competition. Naturally, the rates of duty tend to be very high in this case because, generally, only high rates of duty curtail imports to a significant extent.

Countervailing and Anti-Dumping Duties Countervailing duties may be imposed on certain imports when they have been subsidized by foreign governments. Anti-dumping duties are applied to imports which are being dumped on the domestic market at a price either below their cost of production or substantially lower than their domestic prices. Countervailing and anti-dumping duties are, generally, penalty duties as an addition to the regular rates.

8.2 Impact of Tariff

Tariff affects an economy in different ways. An import duty generally has the following effects:

Protective Effect An import duty is likely to increase the price of the imported goods. This increase in the price of imports is likely to reduce imports and increase the demand for domestic goods. Import duties may also enable the domestic industries to absorb higher production costs. Thus, as a result of the protection accorded by the tariff, the domestic industries are able to expand their output.

Consumption Effect The increase in prices resulting from the import duty usually reduces the consumption capacity of the people.

Redistribution Effect If the import duty causes an increase in the price of domestically produced goods, it amounts to redistribution of income between the consumers and producers in favour of the producers. Further, a part of the consumer income is transferred to the exchequer by means of the tariff.

Revenue Effect As mentioned above, a tariff means increased revenue for the government (unless, of course, the rate of tariff is so prohibitive that it completely stops the import of the commodity subject to the tariff).

Income and Employment Effect The tariff may cause a switch over from spending on foreign goods to spending on domestic goods. This higher spending within the country may cause an expansion of domestic income and employment.

Competitive Effect The competitive effect of the tariff is, in fact, an anti-competitive effect in the sense that protection of domestic industries from foreign competition may enable the domestic industries to obtain monopoly power with all its associated evils.

Terms of Trade Effect In a bid to maintain the previous level of imports to tariff imposing country, if the exporter reduces the prices, the tariff imposing country is able to get their imports at a cheaper price. This will, ceteris paribus, improve the terms of trade of the country imposing the tariff.

Balance of Payments Effect Tariffs, by reducing the volume of imports, may help the country to improve its Balance of Payments position.

International Economics

Diagrammatic Illustration of Effects of Tariff

Figure 1 illustrates the consumption, protective revenue and redistributive effects of tariff. DD1 is the domestic demand curve and SS1 the domestic supply curve. In the absence of foreign trade the equilibrium price is P2, domestic demand and supply being Q4. For simplicity, it is assumed that the foreign supply is perfectly elastic at price P. Therefore, under free trade the supply position is represented by PF. Under free trade, at price P the total domestic demand is Q; Q2 of which is met by domestic supply and Q2 Q is imported. Now, assume that the government imposes a tariff of PP1 per unit of import so that the price rises from P to P1. Consequent upon the increase in price, the total domestic demand falls to Q1. The increase in price enables the domestic supply to increase from Q2 to Q3. The remaining part of the domestic demand (Q3 Q1) is met by import. Under free trade, the total consumers surplus is DPF but with the tariff it is reduced to DP1 F1, thus the total loss of consumers surplus being P1 PFF1. This loss to consumers is absorbed in a number of ways.
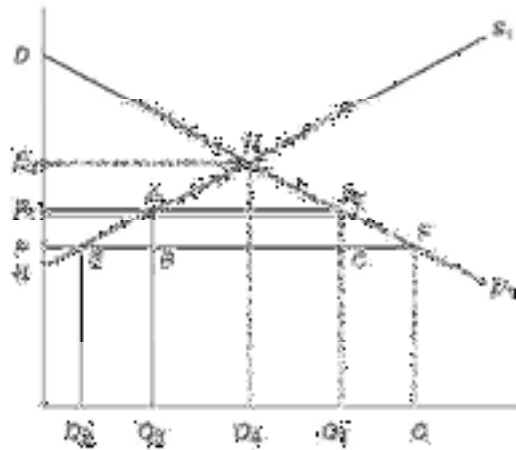

Fig. 1: Effects of Tariff

When the tariff per unit is PP1, the total imports is Q3 Q1. Therefore, government gets tariff revenue equivalent to ABCF1 (PP1 *Q3 Q1). This is the revenue effect of the tariff.

At the higher tariff imposed price the producers get an additional return of PP1 on every unit. As the supply curve also represents the cost curve, the total gain to the producers due to the imposition of the tariff is PP1 AE. This additional economic rent to the producers represents a transfer of income from the consumers to the producers. This is the redistributive effect of the tariff.

Protection enables the domestic producers to increase supply from Q2 to Q3. ABE represents the sum of the additional cost per unit of output. This is the protective effect of the tariff.

Due to the increase in price as a result of the protection, consumption has fallen from Q to Q1, causing a loss of consumer surplus by CFF1. This is the consumption effect of the tariff.

It must be noted that part of the loss of the consumer surplus represented by the revenue effect and the redistribution effect are gained by the government and the producers. Hence, they do not represent a loss to the economy; they represent transfer of income from one sector to other sectors within the economy. Hence, the total net loss imposed by the tariff upon the economy is a sum of the protective effect and the consumption effect (ABE + CFF1).

The effect of tariff on terms of trade can be illustrated with the help of offer curves. In Fig. 2, OH is the offer curve of the home country exporting X goods and importing Y goods, and OF is the offer curve of the foreign country exporting Y goods and importing X goods. The free trade equilibrium terms of trade is represented by the slope of OT.
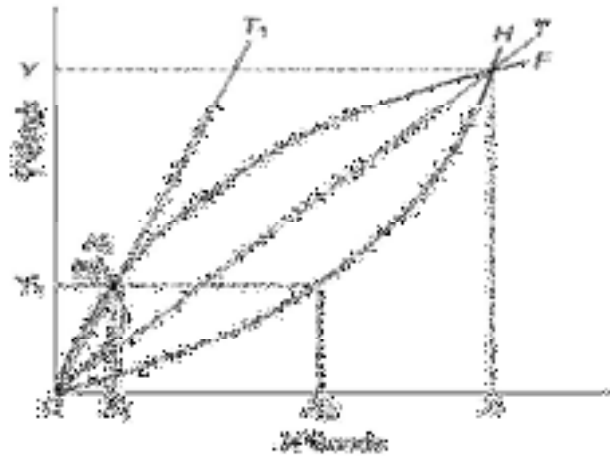
Fig.2: Effect of Tariff on Terms of Trade

Now, suppose that the home country imposes a tariff on its imports so that its offer curve shifts from OH to OH1. This means that now the home country is getting a larger quantity of imports for a given quantity of its exports, or conversely it offers a lesser quantity of exports for a given quantity of imports. New equilibrium is established by the intersection of OH1 and OF at E1, and OT1 emerges as the new equilibrium terms of trade. OT1 is more favourable than OT for the home country while it is more unfavourable for the foreign country. It must, however, be noted that such an improvement in the terms of trade of the home country is possible with the tariff only if the foreign country does not retaliate by imposing tariff on its imports from the home country.

8.3   Nominal and Effective Tariffs

Nominal tariff refers to the actual duty on an imported item. For example, if a commodity is subject to an import duty of 25 per cent ad-valorem, the nominal tariff is 25 per cent.

Corden defines1 the effective protective rate as the percentage increase in value added per unit in an economic activity, which is made possible by the tariff structure relative to the situation in absence of tariffs but the same exchange rates. It depends not only on the tariff on the commodity produced but also on the input coefficients and the tariffs on the inputs.

Effective protective rate of industry 'j' (Ej) may be defined as the difference between the industry's value added under protection (Vj 1) and under free market conditions (Vj), expressed as a percentage of free market value added.

$$E_j = \frac{v'_j - v_j}{v_j} \qquad 7.1$$

Obviously, the protective effect of a tariff on domestic manufacturing is larger when the import duty on the raw materials used in its manufacture is lower.

Illustration Suppose that product X uses imported materials worth Rs. 6,000 and its domestic value added is Rs. 4,000. Thus, the total cost of product X is Rs. 10,000. Suppose, further, that under free trade the imported price of X is only Rs. 9,000. The domestic industry, therefore, cannot survive without protection. The government imposes an import duty of 40 per cent (nominal tariff) on product X. This would increase the price of imported X to Rs. 12,600. The domestic industry could now increase the domestic value addition up to Rs. 6,600 (Rs. 12,600 - 6,000). The effective rate of protection is thus:

(6600-4000)/4000= 0.65(i.e. 65percent)

This means that the 40 per cent nominal import duty enables the domestic producer to increase his value addition up to 65 per cent.

Suppose now that the government imposes an import duty of 20 per cent on the imported materials. This increases the cost of the imported materials to Rs. 7,200 from Rs. 6,000. The maximum domestic value addition that can take place now is Rs. 5,400 (Rs. 12,600   7,200). Therefore, the effective rate of protection is:

(5400-4000)/4000=0.35(i.e 35perecnt)

It is clear that if the domestic producer of X reduces the proportion of the imported materials (assuming that the indigenous materials are available at prices lower than the imported prices), he can enjoy a higher rate of protection. In some cases, import duty on inputs encourages indigenisation/import substitution.

Generalization and Evaluation of the Theory of Effective Protection

From examining Equation (7.1) and the results obtained with it, we can reach the following important conclusions on the relationship between the rate of effective protection (g) and the nominal tariff rate (t) on the final commodity:

1. If a_i = 0, g = t.

2. For given values of ai and t_i, g is larger the greater is the value of t.

3. For given values of t and t_i, g is larger the greater is the value of a_i.

4. The value of g exceeds, is equal to, or is smaller than t, as t_i is smaller than, equal to, or larger than t (see the first three examples above).

5. When ai t_i exceeds t, the rate of effective protection is negative (see the last example above).

Note that a tariff on imported inputs is a tax on domestic producers that increases their costs of production, reduces the rate of effective protection provided by a given nominal tariff on the final commodity, and therefore discourages domestic production. In some cases (see conclusion 5 above), even with a positive nominal tariff on the final commodity, less of the commodity is produced domestically than would be under free trade.

Clearly, the nominal tariff rate can be very deceptive and does not give even a rough idea of the degree of protection actually provided to domestic producers of the import-competing product. Furthermore, most industrial nations have a "cascading" tariff structure with very low or zero nominal tariffs on raw materials and higher and higher rates the greater is the degree of processing (see Case Study 8-5). This "tariff escalation" makes the rate of effective protection on a final commodity with imported inputs much greater than the nominal tariff rate would indicate. Case Study 8-6 shows that the highest rates in developed nations are often found on simple labor-intensive commodities, such as textiles, in which developing nations have a comparative advantage and, as such, are of crucial importance to their development.

The concept of effective protection must be used cautiously, however, because of its partial equilibrium nature. Specifically, the theory assumes that the international prices of the commodity and of imported inputs are not affected by tariffs and that inputs are used in fixed proportions in production. Both assumptions are of doubtful validity. For example, when the price of an imported input rises for domestic producers as a result of an import tariff, they are likely to substitute cheaper domestic or imported inputs in production. Despite these shortcomings, the rate of effective protection is definitely superior to the nominal tariff rate in estimating the degree of protection actually granted to domestic producers of the import-competing product and played a crucial role during the Uruguay Round trade negotiations.

Equation (7-1) can easily be extended to the case of more than one imported input subject to different nominal tariffs. This is done by using the sum of ai ti for each imported input in the numerator and the sum of ai for each imported input in the denominator of the formula. (It is this more general formula that is actually derived in the appendix; the case of a single imported input is a simpler special case.)

8.4   Optimum Tariff

As a country raises its tariff (import duty) unilaterally, the terms of trade may improve and the volume of trade may decline. The improvement in the terms of trade initially tends to more than offset the accompanying reduction in the volume of trade. Hence, a higher trade indifference curve is reached and community welfare is enhanced. Beyond some point, however, it is likely that the detrimental effect of successive reductions in trade volume will begin to outweigh the positive effect of further improvements in the terms of trade so that community welfare begins to fall. Somewhere in between there must be a tariff which optimizes a country's welfare level under these conditions.

Thus, the optimum tariff is the rate of tariff beyond which any further gain from an improvement in terms of trade would be more than offset by the accompanying decline in trade volume. By raising the rate of tariff beyond the optimum rate, it may be still possible to improve the country s terms of trade, but the gain from this improvement in the terms of trade is more than offset by decline in the volume of trade.

Figure 3 illustrates optimum tariff. OH is the offer curve of the home country and OF is the offer curve of the foreign country. Under free trade both the offer curves intersect at E and OT is the equilibrium terms of trade. IC is the trade indifference curve of the home country. Any tariff which distorts the home country s offer curve in such a way that it crosses the foreign country s offer curve between points E and S will lead to a higher trade indifference level. If the new tariff distorted trade point is at S, the trade indifference level will be unchanged because S is on the same old indifference curve IC.
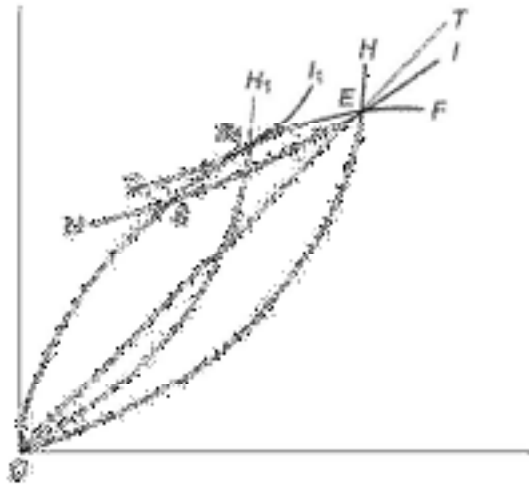

Fig. 3: Optimum Tariff

The highest possible trade indifference curve that the home country can reach is one that is tangent to the foreign offer curve. In Fig. 10.3 it is the trade indifference curve I1C1 which is tangent to OF at point E1. Hence, if the home country can impose a tariff of such magnitude that the tariff distorted offer curve (OH1) intersects the foreign offer curve at point E1, it will be the optimum tariff, because given the foreign country's offer curve OF there is no tariff the home country can impose that will yield a higher level of community welfare.

The magnitude of the optimum tariff depends upon the elasticity of the foreign offer curve. The less elastic the foreign offer curve is, the higher will be the optimum tariff. If the foreign offer curve is perfectly elastic, no tariff will yield improved terms of trade for the home country.

In the above analysis we have assumed that the foreign country does not retaliate against the imposition of tariff by the home country. However, the foreign country will be tempted to retaliate and the retaliation and counter retaliations might set off a tariff war affecting the interests of both the countries.

The Optimum Tariff Formula

Prof. Kindleberger has devised a formula to measure the rate of optimum tariff which is
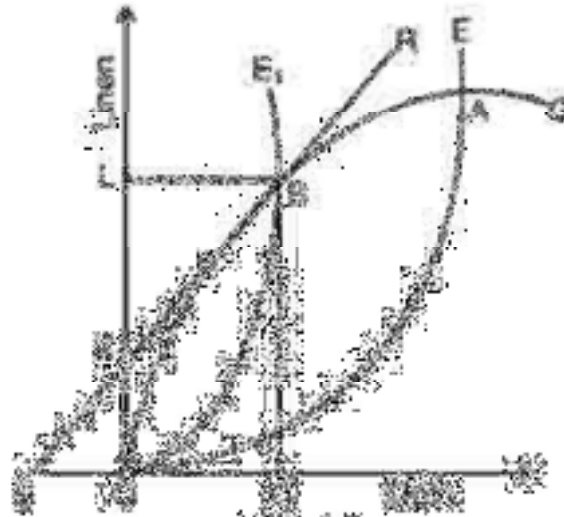
$$T_t = \frac{1}{e - 1}$$

Fig. 4

Where Tf is the optimum tariff rate and e is the point elasticity of the offer curve of the other country. By applying this formula to the above case of a straight line offer curve having infinite elasticity, the optimum tariff is $1/(\infty 1) = 0$. At point A in Fig. 12, the elasticity of the foreign offer curve is 1. The optimum tariff is $1/ (1 1) = \infty$, infinity. When e is more than unity (one), the value of optimum tariff falls. When e is less than unit, the value of optimum tariff is negative thereby indicating that the optimum tariff does not exist on the inelastic portion of the foreign offer curve.

The rate of optimum tariff can be calculated in terms of the elasticity of the foreign offer curve.

In Fig. 4, B is the point where the optimum tariff is determined. The import duty to the public in the tariff imposing country England is OK/KL when CB (= OL) quantity of linen is imported from Germany. Now the optimum tariff at point B is OS/OC. But OS/OC = OS/LB since OC = LB which, in turn, equals OK/KL by similar triangles SOK and BLK. The optimum tariff,

$T_t = OS/OC = OK/KL$ 1)

The ratio OK/KL can be written as $1/(KL/OK)$ 2)

But KL = OL OK substituting it in (2), we have

$1/(OL-OK)/OK = 1/(OL/OK-OK/OK) = 1/OL/OK-1$

But OL/OK is the elasticity of the offer curve at point B. So the optimum tariff OS/OC at point B can be expressed as

$T_t = 1/OK/OL-1 = 1/e-1$

On the basis of the above tariff formula, the optimum tariff rate can be calculated for the different values of elasticity as under:

Optimum Tariff Rate

Elasticity	Optimum Tariff Formula (1/e – 1)	Optimum Tariff Rate T_f
e = 1	$1/1 – 1 = \infty$	Infinity
e = 2	$1/2 – 1 = 1/1 = 1$	100%
e = 3	$1/3 – 1 = 1/2 = 0.5$	50%
e = 5	$1/5 – 1 = 1/4 = 0.25$	25%
e = ∞	$1/5 – 1 = 1/4 = 0.25$	zero

If the tariff-imposing home country is too small to influence the world price, elasticity is infinity. Thus Tf equals O which means that the optimum policy for a small country is free trade. But if the home country is large, the tariff formula requires a positive tariff.

Practical Relevance of Optimum Tariff.

The optimum tariff implies the exploitation of monopoly and monopsony power by large country. Since the country possesses monopoly power, it can influence the world price. As a monopolist, the country can withhold its supply of the exportable good and thus force its price up. As a monopsonists in the market for imports, it can reduce the price by restricting demand by imposing a tariff. But this is essentially a nationalist argument whereby the home country's welfare increases at the expense of the other country.

So far as the relevance of the optimum tariff policy to developed countries is concerned, other motives for protection are more important than this policy. This is because the optimum tariff policy is not practically feasible. It requires that the home country must influence the world price of the good to a large extent so as to justify the imposition of optimum tariff. But there is always the fear of a counter foreign tariff and the resultant tariff war. In such a situation, optimum tariff is not the best policy because it will leave both countries worse off than under free trade. However, if the tariffimposing country is large and the other country is small, there is no fear of retaliation.

So far as LDCs are concerned, the optimum tariff policy is not of much help to them. This is because such economies have a low degree of adaptability to changes in world trade. Therefore, they are not likely to gain much from high tariffs and their optimum tariffs are quite low as compared to developed countries.

Summary

Trade barriers refer to the government policies and measures which obstruct the free flow of goods and services across national borders. They fall into two groups, namely, tariff barriers and non-tariff barriers (NBTs). Figure 5 gives a summary view of trade barriers.

Keywords

1. Nominal tariff refers to the actual duty on an imported item.

2. Optimum Tariff: The optimum tariff is the rate of tariff beyond which any further gain from an improvement in terms of trade would be more than offset by the accompanying decline in trade volume.

3. Rate of Effective Protection: the effective rate of protection (ERP) is a measure of the total effect of the entire tariff structure on the value added per unit of output in each industry, when both intermediate and final goods are imported.

4. Ad valorem tariff The most common is an ad valorem tariff, which means that the customs duty is calculated as a percentage of the value of the product.

5. Compound Tariffs. A compound tariff is a combination of an ad valorem and specific tariffs.

Self Assessment

1. The optimum tariff is

A. the best tariff a country can obtain via a WTO negotiated round of compromises.

B. the tariff, which maximizes the terms of trade gains.

C. the tariff, which maximizes the difference between terms of trade gains and terms of trade loses.

D. not practical for a large country due to the likelihood of retaliation

2. The optimum tariff is most likely to apply to

A. a small tariff imposed by a small country.

B. a small tariff imposed by a large country.

C. a large tariff imposed by a small country.

D. a large tariff imposed by a large country.

3. The effective rate of protection

A. distinguishes between tariffs that are effective and those that are ineffective

B. is the minimum level at which a tariff becomes effective in limiting imports

C. shows how effective a tariff is in raising revenue for the government

D. shows the increase in value added for domestic production that a particular tariff structure makes possible, in percentage terms

4. Which one of the following is not a Non-Tariff Barrier (NTB)?

A. Voluntary export restriction,

B. Local content requirement

C. Administrative barrier

D. Tariff rate quotas

5. The optimum tariff

A. must occur in the elastic range of the tariff-imposing home country's offer curve.

B. takes account of the probability that the partner country will retaliate with protective measures of its own.

C. maximizes total export sales of the imposing country.

D. must occur in the elastic range of the partner country's offer cure.

6. Which of the following refers to the fact that a large country can benefit by levying a

tariff?

A. The "optimal tariff"

B. The "terms of trade effect of a tariff"

C. The "monopoly effect of a tariff"

D. All of the above

7. A specific tariff is

A. Any tax on a particular imported good (as opposed to one on all imports).
B. An import tax that must be paid in kind (giving the government the good itself).
C. A requirement to pay the government a specified fraction of the monetary value of an imported good.
D. A tax on imports defined as an amount of currency per unit of the good.

8. A tariff on imports benefits domestic producers of the imported good because

A. They get the tariff revenue.
B. It raises the price for which they can sell their product on the domestic market.
C. It prevents imports from rising above a specified quantity.
D. It reduces their producer surplus, making them more efficient.

9. When a large country levies a tariff on imports

A. The world price falls.
B. Demanders of the good on the domestic market are hurt
C. The domestic price rises by less than the tariff.
D. All of the above.

10. Specific tariffs are

A. import taxes stated in specific legal statutes.

B. import taxes calculated as a fixed charge for each unit of imported goods.

C. import taxes calculated as a fraction of the value of the imported goods.

D. the same as import quotas

11. Ad-valorem tariffs are

A. import taxes stated in ads in industry publications.

B. import taxes calculated as a fixed charge for each unit of imported goods.

C. import taxes calculated as a fraction of the value of the imported goods.

D. the same as import quotas

12. Which of the following is NOT an example of a "nontariff barrier" to the free flow of goods and services in

accordance with comparative advantage?

A. import quotas.
B. government procurement provisions that favor home products.
C. specific duty of $1.00 per unit on each imported item.
D. voluntary export quotas (VERs).

13. Voluntary exports restraints often convey

A. monopoly power to the importing country.
B. monopoly power to the exporting country.

C. revenues to the importing countries.

D. benefits to both countries equally.

14. An ad valorem tariff is better than a specific tariff because

A. it is hard for importers to avoid it.

B. the value of the tariff on all goods is the same

C. it accounts for changes in inflation.

D. it can always replace a quota

15. Other things equal, which one of the following will cause an increase in the ERP in the automobile industry?

A. a decrease in the nominal tariff rate on automobiles.

B. an increase in the nominal tariff rates on imported inputs used in making automobiles.

C. an increase in the world price of imported inputs used in making automobiles.

D. a decrease in the nominal tariff rates on imported inputs used in making automobiles

Answer for Self Assessment

1.	D	2.	B	3.	D	4.	D	5.	D
6.	D	7.	D	8.	B	9.	D	10.	B
11.	C	12.	C	13.	B	14.	C	15.	D

Review Questions

1. Explain the various types of tariffs. Show with the help of partial equilibrium diagram the price, protective, consumption, revenue and redistribution effects of a tariff.

2. What do you mean by optimum tariff? Under what conditions optimum tariff is likely to be high or zero?

3. What do you mean by effective rate of protection? Explain with examples how is it different from nominal rate of protection.

4. Distinguish between nominal and effective rate of protection. Explain the limitations of the effective rate of protection. What are its implications for developing countries?

5. Write short notes on the following:

   (a) Types of tariffs.

   (b) Nominal and effective tariff.

   (c) Optimum tariff.

6. What is meant by an ad valorem, a specific, and a compound tariff? Are import or export tariffs more common in industrial nations? in developing nations?

7. What is meant by the optimum tariff? What is its relationship to changes in the nation's terms of trade and volume of trade?

8. Why are other nations likely to retaliate when a nation imposes an optimum tariff (or, for that matter, any import tariff)? What is likely to be the final outcome resulting from the process of retaliation?

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Unit 09: Exchange Rates Determination

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Objectives

- explain meaning of foreign exchange rate
- Understand the purchasing-power parity theory and why it does not work in the short run.
- Understand how the monetary and the portfolio balance models of the exchange rate work

Introduction

These theories are based on the monetary approach and the asset market or portfolio balance approach to the balance of payments that have been developed since the late 1960s. These theories view the exchange rate, for the most part, as a purely financial phenomenon. They also seek to explain the great short-run volatility of exchange rates and their tendency to overshoot their long-run equilibrium level, which have often been observed during the past four decades.

These modern exchange rate theories may be distinguished from traditional exchange rate theories which are based on trade flows and help explain exchange rate movements only in the long run or over the years. Since the advent of floating rates in 1973, international financial flows have increased tremendously and are now far larger than trade flows. Therefore, it is only natural that interest shifted toward monetary theories of exchange rate determination. Traditional exchange rate theories are still important, however, especially in explaining exchange rates in the long run.

9.1   Meaning

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 view point 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.

9.2   Theories of Foreign Exchange Rate

There are three theories of the determination of foreign exchange rate. The first is the Mint Parity Theory, the second is the Purchasing Power Parity Theory, and the third is the Balance of Payments Theory. We discuss these theories one by one.

The Purchasing Power Parity Theory

The purchasing power parity (PPP) theory was developed by Gustav Cassel in 1920 to deter mine 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 the relative change in relative prices in the two countries. In other words, the rate of exchange between two countries is determined by their relative price levels. There are two versions of the PPP theory : the absolute and the relative. The absolute version states that the exchange rate between two currencies should be equal to the ratio of the price indexes in the two countries. The formula is $R_{AB} = P_A / P_B$ where R_{AB} is the exchange rate between two countries A and B and P refers to the price index. This version is not used because it ignores transportation costs and other factors which hinder trade, non-traded goods, capital flows and real purchasing power. Economists, therefore, use the relative version which we discuss. 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 becomes 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.

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= (Domestic Price of a Foreign Currency*Domestic price Index)/Foreign price Index

Or R= $R_0 * \dfrac{P_{A_1}/P_{A_0}}{P_{B_1}/P_{B_0}}$

where 0 = base period, 1 = period 1, A and B countries, P = price index and R0 = exchange rate in base period.

According to Cassel, the purchasing power parity is "determined by the quotients of the purchasing powers of the different currencies." 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= £1*300/200=£1.5

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).

There is an absolute and a relative version of the PPP theory.

Absolute Purchasing-Power Parity Theory

The absolute purchasing-power parity theory postulates that the equilibrium exchange rate between two currencies is equal to the ratio of the price levels in the two nations. Specifically:

R=P/P*

where R is the exchange rate or spot rate and P and P∗ are, respectively, the general price level in the home nation and in the foreign nation. For example, if the price of one bushel of wheat is \$1 in the United States and ¤1 in the European Monetary Union, then the exchange rate between the dollar and the pound should be R = \$1/¤1 = 1. That is, according to the law of one price, a given commodity should have the same price (so that the purchasing power of the two currencies is at parity) in both countries when expressed in terms of the same currency. If the price of one bushel of wheat in terms of dollars were \$0.50 in the United States and \$1.50 in the European Monetary Union, firms would purchase wheat in the United States and resell it in the European Monetary Union, at a profit. This commodity arbitrage would cause the price of wheat to fall in the European Monetary Union and rise in the United States until the prices were equal, say \$1 per bushel, in both economies (in the absence of obstructions to the flow of trade or subsidies and abstracting from transportation costs). Commodity arbitrage thus operates just as does currency arbitrage in equalizing commodity prices throughout the market.

This version of the PPP theory can be very misleading. There are several reasons for this. First, it appears to give the exchange rate that equilibrates trade in goods and services while completely disregarding the capital account. Thus, a nation experiencing capital outflows would have a deficit in its balance of payments, while a nation receiving capital inflows would have a surplus if the exchange rate were the one that equilibrated international trade in goods and services. Second, this version of the PPP theory will not even give the exchange rate that equilibrates trade in goods and services because of the existence of many nontraded goods and services.

Nontraded goods include products, such as cement and bricks, for which the cost of transportation is too high for them to enter international trade, except perhaps in border areas. Most services, including those of mechanics, hair stylists, family doctors, and many others, also do not enter international trade. International trade tends to equalize the prices of traded goods and services among nations but not the prices of nontraded goods and services. Since the general price level in each nation includes both traded and nontraded commodities, and prices of the latter are not equalized by international trade, the absolute PPP theory will not lead to the exchange rate that equilibrates trade. Furthermore, the absolute PPP theory fails to take into account transportation costs or other obstructions to the free flow of international trade. As a result, the absolute PPP theory cannot be taken too seriously. Whenever the purchasing-power parity theory is used, it is usually in its relative formulation.

Relative Purchasing-Power Parity Theory

The more refined relative purchasing-power parity theory postulates that the change in the exchange rate over a period of time should be proportional to the relative change in the price levels in the two nations over the same time period. Specifically, if we let the subscript 0 refer to the base period and the subscript 1 to a subsequent period, the relative PPP theory postulates that

$R_1 = (P_1/P_0)/(P^*_1/P^*_0)*R_0$

where R1 and R0 are, respectively, the exchange rates in period 1 and in the base period.

For example, if the general price level does not change in the foreign nation from the base period to period 1 (i.e., P∗ 1/P∗ 0 = 1), while the general price level in the home nation increases by 50 percent, the relative PPP theory postulates that the exchange rate (defined as the home-currency price of a unit of the foreign nation's currency) should be 50 percent higher (i.e., the home nation's currency should depreciate by 50 percent) in period 1 as compared with the base period.

Note that if the absolute PPP held, the relative PPP would also hold, but when the relative PPP holds, the absolute PPP need not hold. For example, while the very existence of capital flows, transportation costs, other obstructions to the free flow of international trade, and government intervention policies leads to the rejection of the absolute PPP, only a change in these would lead the relative PPP theory astray.

However, other difficulties remain with the relative PPP theory. One of these results from the fact (pointed out by Balassa and Samuelson in 1964) that the ratio of the price of nontraded to the price of traded goods and services is systematically higher in developed nations than in developing nations. The Balassa–Samuelson effect results from labor productivity in traded goods being higher in developed than in developing countries, but about the same in many nontraded goods and services sectors (for example, haircutting). To remain in nontraded goods and services sectors in developed nations, however, labor must receive wages comparable to the high wages in traded-goods sectors. This makes the price of nontraded goods and services systematically higher in developed than in developing nations. For example, the price of a haircut may be $10 in the United States but only $1 in Brazil.

Since the general price index includes the prices of both traded and nontraded goods and services, and prices of the latter are not equalized by international trade but are relatively higher in developed nations, the relative PPP theory will tend to predict overvalued exchange rates for developed nations and undervalued exchange rates for developing nations, with distortions being larger the greater the differences in the levels of development. This has been confirmed by Rogoff (1996) and Choudri and Khan (2005).

Significant structural changes also lead to problems with the relative PPP theory. For example, the PPP theory indicated that the British pound was undervalued (i.e., the exchange rate of the pound was too high) immediately after World War I, when it was obvious that the opposite was the case (and the exchange rate of the pound should have been even higher). The reason was that the United Kingdom had liquidated many of its foreign investments during the war, so that the equilibrium exchange rate predicted by the relative PPP theory (which did not take into consideration the drop in earnings from foreign investments) would have left a large deficit in the U.K. balance of payments after the war.

9.3 Monetary Approach to the Balance of Payments and Exchange Rates

In this section we examine the monetary approach to the balance of payments. This approach was started toward the end of the 1960s by Robert Mundell and Harry Johnson and became fully developed during the 1970s. The monetary approach represents an extension of domestic monetarism (stemming from the Chicago school) to the international economy in that it views the balance of payments as an essentially monetary phenomenon. That is, money plays the crucial role in the long run both as a disturbance and as an adjustment in the nation's balance of payments. We examine the monetary approach under fixed exchange rates, in we look at the monetary approach under flexible exchange rates, we show how exchange rates are determined according to the monetary approach, and then we discuss the effect of expectations on exchange rates.

Monetary Approach under Fixed Exchange Rates

The monetary approach begins by postulating that the demand for nominal money balances is positively related to the level of nominal national income and is stable in the long run. Thus, the equation for the demand for money can be written as:

Md = kPY -----------1)

where Md = quantity demanded of nominal money balances k = desired ratio of nominal money balances to nominal national income P = domestic price level Y = real output

In Equation (1), PY is the nominal national income or output (GDP). This is assumed to be at or to tend toward full employment in the long run. The symbol k is the desired ratio of nominal money balances to nominal national income; k is also equal to 1/V , where V is the velocity of circulation of money or the number of times a dollar turns over in the economy during a year. With V (and thus k) depending on institutional factors and assumed to be constant, Md is a stable and positive function of the domestic price level and real national income. For example, if GDP = PY = $1 billion and V = 5 (so that k = 1/V = 1/5), then Md = (1/5)PY = (1/5)($1 billion) = $200 million. Although not included in Equation (1), the demand for money is also related, but inversely, to the interest rate (i) or opportunity cost of holding inactive money balances rather than interest-bearing securities. Thus, Md is directly related to PY and inversely related to i. (This more complete money demand function is formally presented in the appendix to this chapter.) To simplify the analysis, however, we assume for now that Md is related only to PY , or the nation's nominal GDP, and will work with Equation (1).

On the other hand, the nation's supply of money is given by

Ms = m(D + F)

$$(2)$$

where Ms = the nation's total money supply m = money multiplier D = domestic component of the nation's monetary base F = international or foreign component of the nation's monetary base

The domestic component of the nation's monetary base (D) is the domestic credit created by the nation's monetary authorities or the domestic assets backing the nation's money supply. The international or foreign component of the nation's money supply (F) refers to the international reserves of the nation, which can be increased or decreased through balance-of-payments surpluses or deficits, respectively. D + F is called the monetary base of the nation, or high-powered money. Under a fractional-reserve banking system (such as we have today), each new dollar of D or F deposited in any commercial bank results in an increase in the nation's money supply by a multiple of $1. This is the money multiplier, m, in Equation (2).

For example, a new deposit of $1 in a commercial bank allows the bank to lend (i.e., to create demand deposits for borrowers) $0.80, if the legal reserve requirement (LRR) is 20 percent. The $0.80 lent by the first bank is usually used by the borrower to make a payment and ends up as a deposit in another bank of the system, which proceeds to lend 80 percent of it ($0.64), while retaining 20 percent ($0.16) as reserve. The process continues until the original $1 deposit has become the reserve base of a total of $1.00 + $0.80 + $0.64 + ... = $5 in demand deposits (which are part of the nation's total money supply). The figure of $5 is obtained by dividing the original deposit of $1 by the legal reserve requirement of 20 percent, or 0.2. That is, $1/0.2 = 5 = m. However, due to excess reserves and leakages, the real-world multiplier is likely to be smaller. In what follows, we assume for simplicity that the money multiplier (m) is constant over time.

Starting from a condition of equilibrium where Md = Ms, an increase in the demand for money (resulting, say, from a once-and-for-all increase in the nation's GDP) can be satisfied either by an increase in the nation's domestic monetary base (D) or by an inflow of international reserves, or balance-of-payments surplus (F). If the nation's monetary authorities do not increase D, the excess demand for money will be satisfied by an increase in F. On the other hand, an increase in the domestic component of the nation's monetary base (D) and money supply (Ms), in the face of unchanged money demand (Md), flows out of the nation and leads to a fall in F (a deficit in the nation's balance of payments). Thus, a surplus in the nation's balance of payments results from an excess in the stock of money demanded that is not satisfied by an increase in the domestic component of the nation's monetary base, while a deficit in the nation's balance of payments results from an excess in the stock of the money supply of the nation that is not eliminated by the nation's monetary authorities but is corrected by an outflow of reserves.

For example, an increase in the nation's GNP from $1 billion to $1.1 billion increases Md from $200 million (1/5 of $1 billion) to $220 million (1/5 of $1.1 billion). If the nation's monetary authorities keep D constant, F will ultimately have to increase (a surplus in the nation's balance of payments) by $4 million, so that the nation's money supply also increases by $20 million (the $4 million increase in F times the money multiplier of m = 5). Such a balance-of-payments surplus could be generated from a surplus in the current account or the capital account of the nation. How this surplus arises is not important at this time, except to note that the excess demand for money will lead to a balance-of-payments surplus that increases Ms by the same amount. On the other hand, an

excess in the stock of money supplied will lead to an outflow of reserves (a balance-of-payments deficit) sufficient to eliminate the excess supply of money in the nation.

The nation, therefore, has no control over its money supply under a fixed exchange rate system in the long run. That is, the size of the nation's money supply will be the one that is consistent with equilibrium in its balance of payments in the long run. Only a reserve-currency country, such as the United States, retains control over its money supply in the long run under a fixed exchange rate system because foreigners willingly hold dollars.

To summarize, a surplus in the nation's balance of payments results from an excess in the stock of money demanded that is not satisfied by domestic monetary authorities. On the other hand, a deficit in the nation's balance of payments results from an excess in the stock of money supplied that is not eliminated or corrected by the nation's monetary authorities. The nation's balance-of-payments surplus or deficit is temporary and self-correcting in the long run; that is, after the excess demand for or supply of money is eliminated through an inflow or outflow of funds, the balance-of-payments surplus or deficit is corrected and the international flow of money dries up and comes to an end. Thus, except for a currency-reserve country, such as the United States, the nation has no control over its money supply in the long run under a fixed exchange rate system.

Monetary Approach under Flexible Exchange Rates

Under a flexible exchange rate system, balance-of-payments disequilibria are immediately corrected by automatic changes in exchange rates without any international flow of money or reserves. Thus, under a flexible exchange rate system, the nation retains dominant control over its money supply and monetary policy. Adjustment takes place as a result of the change in domestic prices that accompanies the change in the exchange rate. For example, a deficit in the balance of payments (resulting from an excess money supply) leads to an automatic depreciation of the nation's currency, which causes prices and therefore the demand for money to rise sufficiently to absorb the excess supply of money and automatically eliminate the balance-of-payments deficit.

On the other hand, a surplus in the balance of payments (resulting from an excess demand for money) automatically leads to an appreciation of the nation's currency, which tends to reduce domestic prices, thus eliminating the excess demand for money and the balance-of-payments surplus. Whereas under fixed exchange rates, a balance-of-payments disequilibrium is defined as and results from an international flow of money or reserves (so that the nation has no control over its money supply in the long run), under a flexible exchange rate system, a balance-of-payments disequilibrium is immediately corrected by an automatic change in exchange rates and without any international flow of money or reserves (so that the nation retains dominant control over its money supply and domestic monetary policy).

The actual exchange value of a nation's currency in terms of the currencies of other nations is determined by the rate of growth of the money supply and real income in the nation relative to the growth of the money supply and real income in the other nations. For example, assuming zero growth in real income and the demand for money, as well as in the supply of money, in the rest of the world, the growth in the nation's money supply in excess of the growth in its real income and demand for money leads to an increase in prices and in the exchange rate (a depreciation of the currency) of the nation. Conversely, an increase in the nation's money supply that falls short of the increase in its real income and demand for money tends to reduce prices and the exchange rate (an appreciation of the currency) of the nation. (The actual process by which exchange rates are determined under the monetary approach is examined in the next section.)
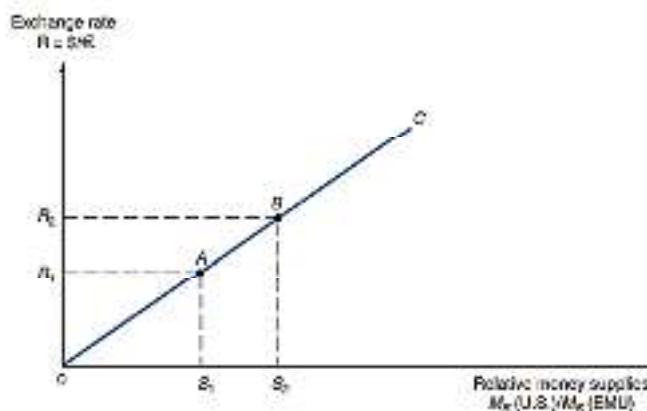
Fig. 1

Thus, according to the monetary approach, a currency depreciation results from excessive money growth in the nation over time, while a currency appreciation results from inadequate money growth in the nation. Put differently, a nation facing greater inflationary pressure than other nations (resulting from more rapid growth of its money supply in relation to the growth in its real income and demand for money) will find its exchange rate rising (its currency depreciating—see Figure 1). On the other hand, a nation facing lower inflationary pressure than the rest of the world will find its exchange rate falling (its currency appreciating). According to global monetarists, the depreciation of the U.S. dollar and the appreciation of the German mark during the 1970s were due to excessive money growth and inflationary pressure in the United States, and to the much smaller rate of money growth and inflationary pressure in Germany than in the rest of the world.

With flexible exchange rates, the rest of the world is to some extent shielded from the monetary excesses of some nations. The nations with excessive money growth and depreciating currencies will now transmit inflationary pressures to the rest of the world primarily through their increased imports rather than directly through the export of money or reserves. This will take some time to occur and will depend on how much slack exists in the world economy and on structural conditions abroad.

Under a managed floating exchange rate system of the type in operation today, the nation's monetary authorities intervene in foreign exchange markets and either lose or accumulate international reserves to prevent an "excessive" depreciation or appreciation of the nation's currency, respectively. Under such a system, part of a balance-of-payments deficit is automatically corrected by a depreciation of the nation's currency, and part is corrected by a loss of international reserves (refer to Figure 14.2). As a result, the nation's money supply is affected by the balance-of-payments deficit, and domestic monetary policy loses some of its effectiveness. Under a managed float, the nation's money supply is similarly affected by excessive or inadequate growth of the money supply in other nations, although to a smaller extent than under a fixed exchange rate system.

Monetary Approach to Exchange Rate Determination

We defined the exchange rate as the domestic currency price of a unit of the foreign currency. With the dollar ($) as the domestic currency and the euro (£) as the foreign currency, the exchange rate (R) was defined as the number of dollars per euro, or R = $/£. For example, if R = $1/£1, this means that one dollar is required to purchase one euro, or if R = $1.20/£1, it would take $1.20 to get one euro. If markets are competitive and if there are no tariffs, transportation costs, or other obstructions to international trade, then according to the law of one price postulated by the purchasing-power parity (PPP) theory, the price of a commodity must be the same in the United States as in the European Monetary Union (EMU). That is, PX ($) = RPX (£). For example, if the price of a unit of commodity X is PX = £1 in the EMU and R = $1.20/£1, then PX = $1.20 in the United States. The same is true for every other traded commodity and for all commodities together (price indices). That is,

P = RP∗

And

R=P/P*   3

where R is the exchange rate of the dollar, P is the index of dollar prices in the United States, and P∗ is the index of euro prices in the EMU.

We can show how the exchange rate between the dollar and the euro is determined according to the monetary approach by starting with the nominal demand-for-money function of the United States (Md , from Equation (1)) and for the EMU (M*d)

Md = kPY and M ∗ d = k ∗P∗Y ∗

where k is the desired ratio of nominal money balances to nominal national income in the United States, P is the price level in the United States, and Y is real output in the United States, while the asterisked symbols have the same meaning for the EMU.

In equilibrium, the quantity of money demanded is equal to the quantity of money supplied. That is, Md = Ms and M∗ d = M∗ s. Substituting Ms for Md and M∗ s for M∗ d in Equation (1), and dividing the resulting EMU function by the U.S. function, we get

$$M^*_s /M_s = k * P*Y */Kpy \qquad\qquad 4$$

By then dividing both sides of Equation () by P∗/P and M∗ s/Ms we get

$$P P* = Msk *Y * /M * s k \qquad\qquad 5$$

But since R = P/P∗ (from Equation (3)), we have

$$R = M_s k^* Y^* / M_{s*} K_y \qquad\qquad 6$$

Since k∗ and Y∗ in the EMU and k and Y in the United States are assumed to be constant, R is constant as long as Ms and M∗ s remain unchanged. For example, if k∗Y∗/kY = 0.3 and Ms/M∗ s = 4, then R = \$1.20/¤1. In addition, changes in R are proportional to changes in Ms and inversely proportional to changes in M∗ s. For example, if Ms increases by 10 percent in relation to M∗ s, R will increase (i.e., the dollar will depreciate) by 10 percent, and so on.

Exchange Rate Dynamics

1. Exchange Rate Overshooting

We have seen previously that changes in interest rates, expectations, wealth, and so on disturb equilibrium and lead investors to reallocate financial assets to achieve a new equilibrium or balanced portfolio. The adjustment involves a change in the stock of the various financial assets in the portfolio. Having been accumulated over a long period of time, the total stock of financial assets in investors' portfolios in the economy is very large in relation to the yearly flows (additions to the stock) through usual savings and investments. Not only is the total stock of financial assets in investors' portfolios very large at any point in time, but any changes in interest rates, expectations, or other forces that affect the benefits and costs of holding the various financial assets are likely to lead to an immediate or very rapid change in their stock as investors attempt to quickly reestablish equilibrium in their portfolios.

For example, an unanticipated increase in the nation's money supply leads to an immediate decline in the nation's interest rate. If all markets were originally in equilibrium, the decline in the nation's interest rate would lead investors to shift from domestic bonds to money balances and foreign bonds, as explained earlier. This stock adjustment can be very large and usually occurs immediately or over a very short time. This is to be contrasted to a change in the flow of merchandise trade that results from, say, a depreciation of the nation's currency and that takes place only gradually and over a longer period of time. (Previous contracts have to be honored, and new orders may take many months to fill.) Thus, stock adjustments in financial assets are usually much larger and quicker to occur than adjustments in trade flows.

The differences in the size and quickness of stock adjustments in financial assets as opposed to adjustments in trade flows have very important implications for the process by which exchange rates are determined and change (their dynamics) over time. For example, an unexpected increase in the nations' money supply and decline in domestic interest rates are likely to lead to a large and quick increase in the demand for the foreign currency as investors increase their stock of the foreign bond. This, in turn, leads to an immediate and large depreciation of the domestic currency, which is likely to swamp the smaller and more gradual changes in exchange rates resulting from changes in real markets, such as changes in trade flows. (Of course, the opposite would occur if the money supply increased and the interest rate declined abroad.) To be sure, in the long run, the effect on exchange rates of changes in real markets will prevail, but in the short or very short run (i.e., during the period of a day, week, or month), changes in exchange rates are likely to reflect mostly the effect of stock adjustments in financial assets and expectations. If the real sector responded immediately, as financial sectors do, there would be no exchange rate overshooting.

The preceding analysis can also help explain why, in the short run, exchange rates tend to overshoot or bypass their long-run equilibrium level as they move toward long-run equilibrium. Since adjustments in trade flows occur only gradually over time, most of the burden of adjustment in exchange rates must come from financial markets in the very short and short runs. Thus, the exchange rate must overshoot or bypass its long-run equilibrium level for equilibrium to be quickly reestablished in financial markets. Over time, as the cumulative contribution to adjustment coming

from the real (e.g., trade) sector is felt, the exchange rate reverses its movement and the overshooting is eliminated. Exactly how this takes place is shown next.

2. Time Path to a New Equilibrium Exchange Rate

The model that examines the precise sequence of events that leads the exchange rate in the short run to overshoot its long-run equilibrium was introduced by Rudi Dornbusch in 1976 and can be visualized with Figure 15.6. Panel (a) shows that at time t 0 the Fed unexpectedly increases the U.S. money supply by 10 percent, from $100 billion to $110 billion, and keeps it at that higher level. Panel (b) shows that the 10 percent unanticipated increase in the U.S. money supply leads to an immediate decline in the U.S. interest rate—say, from 10 percent to 9 percent at time t0. Panel (c) shows that the 10 percent increase in the U.S. money supply will have no immediate effect on U.S. prices. We assume that U.S. prices are "sticky" and rise only gradually over time until they are 10 percent higher than originally in the long run (from the price index of 100 to 110).

Finally, panel (d) shows that as investors shift from domestic bonds and money balances to foreign bonds and increase their demand of the foreign currency (to purchase more foreign bonds), the exchange rate (R) increases (i.e., the dollar depreciates). The dollar immediately depreciates by more than the 10 percent that is expected in the long run (because of the 10 percent increase in the domestic money supply). Panel (d) shows that R immediately rises (the dollar depreciates) by 16 percent, from $1/¤1 to $1.16/¤1 at time t0. The question is why does the dollar immediately depreciate by more than 10 percent when, according to the PPP theory, we expect it to depreciate only by 10 percent (the same percentage by which the U.S. money supply has increased) in the long run?

To explain this we must go back to the uncovered interest parity (UIP) condition given by Equation (15-8). This postulates that the domestic interest rate (i) is equal to the foreign interest rate (i∗) plus the expected appreciation of the foreign currency (EA). Since we assume (as in the monetary approach) that domestic and foreign bonds are perfect substitutes, there is no risk premium. If we further assume for simplicity that EA equals zero, then the uncovered interest parity condition means that i = i ∗ before the increase in the U.S. money supply. But the unanticipated increase in the U.S. money supply leads to a reduction in the U.S. interest rate. Thus, the U.S. interest rate (i) now exceeds the foreign interest rate (i∗), and this must be balanced by the expectation of a future depreciation of the foreign currency (¤) and appreciation of the dollar in order for the condition of uncovered interest parity to be once again satisfied.

The only way that we can expect the dollar to appreciate in the future and still end up with a net depreciation of 10 percent in the long run (to match the 10 percent increase in the U.S. money supply and prices) is for the dollar to immediately depreciate by more than 10 percent. Panel (d) shows that the dollar immediately depreciates (R rises) by 16 percent at time t0 and then gradually appreciates (R falls) by 6 percent (measured from the original base of $1.00) over time (thus removing the overshooting), so as to end up with a net depreciation of only 10 percent in the long run. In other words, after the initial excessive depreciation, the dollar appreciates in order to eliminate its undervaluation. Note also from panel (b) that over time, as U.S. prices rise by 10 percent, the U.S. nominal interest will also gradually rise until it reaches its original level of 10 percent in the long run.
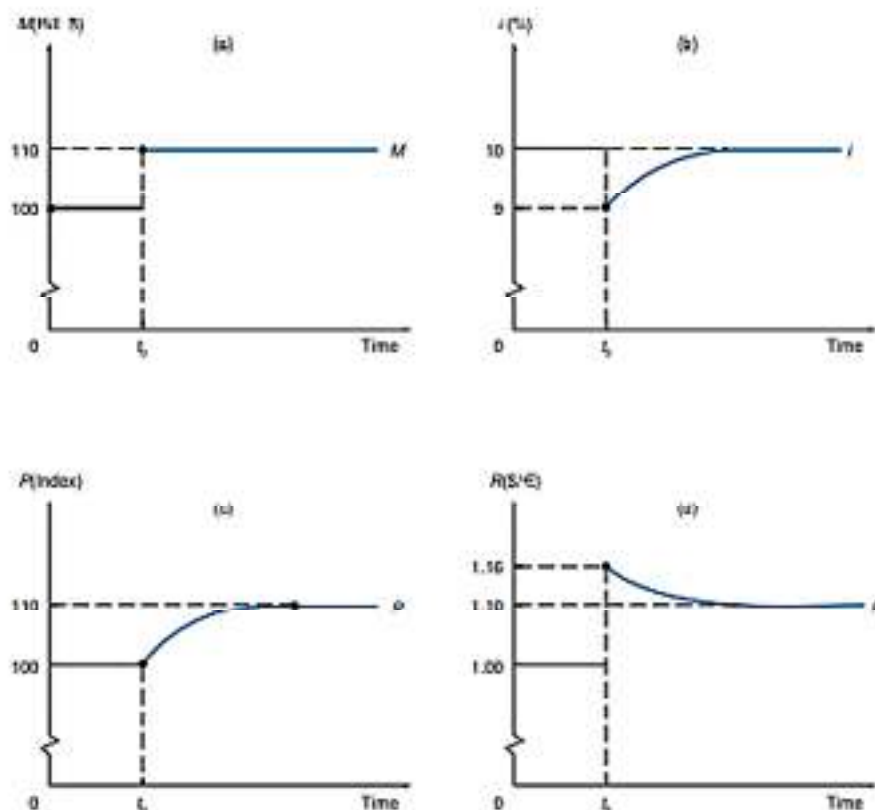
Fig.1 Exchange Rate Overshooting.

It may seem to be a contradiction that the dollar appreciates by 6 percent over time (after its sudden 16 percent depreciation at time t0) at the same time that prices are rising in the United States. But, as shown in panel (d), the dollar appreciation occurs only to remove the excessive depreciation at time t0. Another way to look at this, which also brings trade into the picture, is to realize that the immediate depreciation of the dollar will lead to a gradual increase in the nation's exports and reduction in the nation's imports, which will result (everything else being equal) in an appreciation of the dollar over time. Since we know from the PPP theory that the dollar must depreciate by 10 percent in the long run, the only way to also expect that the dollar will appreciate in the future is for the dollar to immediately depreciate by more than 10 percent as a result of the unexpected 10 percent increase in the U.S. money supply.

Of course, if other disturbances occur before the exchange rate reaches its long-run equilibrium level, the exchange rate will be continually fluctuating, always moving toward its long-run equilibrium level but never quite reaching it. This seems to conform well with the recent real-world experience with exchange rates. Specifically, since 1971, and especially since 1973, exchange rates have been characterized by a great deal of volatility, overshooting, and subsequent correction, but always fluctuating in value.

Summary

Modern exchange rate theories are based on the monetary and the asset market or portfolio balance approaches to the balance of payments and view the exchange rates, for the most part, as a purely financial phenomenon. Traditional exchange rate theories, on the other hand, are based on trade flows and contribute to the explanation of exchange rate movements in the long run. With financial flows now dwarfing trade flows, interest has shifted to modern exchange rate theories, but traditional theories remain important and complement modern theories in the long run. The absolute purchasing-power parity (PPP) theory postulates that the exchange rate between two currencies is equal to the ratio of the price level in the two countries so that a given commodity has the same price in both countries when expressed in terms of the same currency (the law of one price). The more refined relative PPP theory postulates that the change in the exchange rate should be proportional to the change in relative prices in the two nations. The theory has relevance only in

very long-run or in highly inflationary periods. The existence of nontraded goods and structural changes usually leads the theory astray. This has been particularly true since the late 1970s.

According to the monetary approach, the nominal demand for money is stable in the long run and positively related to the level of nominal national income but inversely related to the interest rate. The nation's money supply is equal to its monetary base times the money multiplier. The nation's monetary base is equal to the domestic credit created by its monetary authorities plus its international reserves. Unless satisfied domestically, an excess supply of money in the nation results in an outflow of reserves, or a balance-of-payments deficit under fixed exchange rates and a depreciation of the nation's currency (without any international flow of reserves) under flexible exchange rates. The opposite takes place with an excess demand for money in the nation. Thus, except for a currency-reserve country, such as the United States, the nation has no control over its money supply in the long run under fixed exchange rates but retains control under flexible exchange rates. An increase in the expected rate of inflation in a nation will immediately result in an equal percentage depreciation of the nation's currency. The monetary approach also assumes that the interest differential in favor of the home nation equals the expected percentage appreciation of the foreign country's currency (uncovered interest arbitrage).

Keywords

- Foreign Exchange Market: The market in which currencies are bought and sold.
- Absolute purchasing-power parity theory: Absolute purchasing power parity (APPP) is the basic PPP theory, which states that once two currencies have been exchanged, a basket of goods should have the same value.
- Purchasing-power parity (PPP) theory: Purchasing power parity (PPP) is the idea that goods in one country will cost the same in another country, once their exchange rate is applied.
- Balance of Payment: The balance of payments (BOP) is a statement of all transactions made between entities in one country and the rest of the world over a defined period of time
- Monetary Approach : The monetary approach, given the above assumptions, holds that the excess of money supply over money demand reflects the balance of payments deficit.

Self Assessment

1. Theory of purchasing power parity ………………….
A. neglects capital account transactions,
B. includes transportation cost,
C. includes prices of non- traded goods,
D. applies only in short run

2. Purchasing Power Parity Theory was propounded by . …………….
A. (Gustav Cassel,
B. David Ricardo,
C. Adam Smith,
D. None of the above)

3. Equilibrium exchange rate is determined when …………………..
A. the demand curve for foreign currency intersects with supply curve,
B. demand curve shifts upwards,
C. supply curves slopes downwards,
D. none of the above

4. Exchange rate between two currencies is based on ………………

A. purchasing power of two currencies,

B. economic development of the two nations,

C. political stability in the two countries,

D. none of the above

5. PPP Theory considers that goods in different countries are …………

A. Identical,

B. differential,

C. superior,

D. none of the above

6.   PPP Theory ignores capital flows on account of …………….

A. capital account,

B. trade account,

C.   current account,

D. none of the above

7. The Purchasing Power Parity (PPP) theory is a good predictor of

A. the long-run tendencies between changes in the price level and the exchange rate of two countries

B. interest rate differentials between two countries when there are strong barriers preventing trade between the two countries

C. either b or c

D. none of the above

8. According to the Purchasing Power Parity (PPP) theory,

A. Exchange rates between two national currencies will adjust daily to reflect price level differences in the two countries

B. In the long run, inflation rates in different countries will equalize around the world

C. In the long run, the exchange rates between two national currencies will reflect price level differences in the two countries

D. None of the above

9. If purchasing power parity were to hold even in the short run, then:

A. real exchange rates should tend to decrease over time;

B. quoted nominal exchange rates should be stable over time.

C. real exchange rates should tend to increase over time;

D. real exchange rates should be stable over time;

10. According to the Purchasing Power Parity theory, the value of a currency should remain constant in terms of what it can buy in different countries of

A. Bonds

B. Stocks

C. Goods

D. Labor

11. The exchange rate is the

A. total yearly amount of money changed from one country's currency to another country's currency

B. total monetary value of exports minus imports

C. amount of country's currency which can exchanged for one ounce of gold

D. price of one country's currency in terms of another country's currency

12. Exchange rates

A. are always fixed

B. fluctuate to equate the quantity of foreign exchange demanded with the quantity supplied

C. fluctuate to equate imports and exports

D. fluctuate to equate rates of interest in various countries

13. India's foreign exchange rate system is _____

A. Fixed target of band

B. Free float

C. Fixed system

D. Managed float

14. Who determines foreign exchange rates in India?

A. RBI

B. FEDAI

C. market forces of demand and supply

D. finance ministry of India

15. If purchasing power parity were to hold even in the short run, then:

A. real exchange rates should tend to decrease over time;

 B. quoted nominal exchange rates should be stable over time.

C. real exchange rates should tend to increase over time;

D. real exchange rates should be stable over time;

Answer for Self Assessment

1.	A	2.	A	3.	A	4.	A	5.	A
6.	A	7.	A	8.	C	9.	D	10.	C
11.	D	12.	B	13.	D	14.	C	15.	D

Review Questions

1. Which are the modern and the traditional exchange rate theories? What distinguishes them? What is the relevance of each? What is the relationship between them?

2. What is the purchasing-power parity theory? What are its uses? What is the absolute purchasing-power parity theory? Why is this not acceptable?

3. What is the relative purchasing-power parity theory? Do empirical tests confirm or reject the relative purchasing-power parity theory?

4. How does the monetary approach explain the process by which a balance-of-payments disequilibrium is corrected under a flexible exchange rate system? How does this differ from the case of fixed exchange rates?

5. Explain the exchange rate trends of the Rupee since 1993?

6. What are foreign exchange markets? What is their most important function? How is this function performed?

7. What is meant by a spot transaction and the spot rate? a forward transaction and the forward rate? What is meant by a forward discount? forward premium? What is a currency swap? What is a foreign exchange futures? a foreign exchange option?

8. What is meant by foreign exchange risk? How can foreign exchange risks be covered in the spot, forward, futures, or options markets? Why does hedging not usually take place in the spot market?

9. What is meant by speculation? How can speculation take place in the spot, forward, futures, or options markets? Why does speculation not usually take place in the spot market? What is stabilizing speculation? destabilizing speculation?

10. Explain the working of spot and forward exchange markets.

11. Write notes on : hedging, speculation.

Further Readings

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Unit 10: Foreign Exchange Markets

Objectives

- explain meaning of foreign exchange market
- discuss various types of exchange transaction quotations md rates prevailing in foreign exchange markets
- describe the functions of the foreign exchange ma&% and the role of its participants

Introduction

International trade and investment create need for buying, selling borrowing and lending foreign currencies Let us take an example, an exporter in Japan sells goods to a customer in the U.K. The sale will be priced in Yen, Sterling or perhaps a third currency such as U.S. dollar.

a) If the sale is priced in Yen, the U.K. customer will purchase Yen with Sterling in order to make payment.

b) If the sale price is in Sterling, the Japanese supplier will normally wish to convert the receipts into domestic currency yen^ to meet operating expenses in Japan, and will sell Sterling in exchange for Yen.

c) If the sale price is in a third currency, such as US dollars, the customer will buy dollars in exchange for Sterling to. make the payment and supplier will then sell the dollars in exchange for Yen.

Sometimes, international trade transactions do not result in the sale or purchase of foreign currency because companies set-off foreign currency receipts against foreign exchange payments. However. buying and selling, borrowing and lending foreign currencies an common activities which support international trade and investment. These activities an undertaken in the financial markets called foreign exchange markets. As student of International Business Operations, it is thus important for you to know the terminology operations and mechanisms of foreign exchange markets. In this unit, you will learn about the meaning of foreign exchange market and its functions, types of transactions made and the rates used in this market. You will also learn about the operations and dynamics of Indian foreign exchange market

10.1 <u>Meaning</u>

Foreign exchange in short form is called Forex. The foreign exchange market or forex market is the market where one currency is exchanged or traded for another currency. Forex markets are also called foreign currency or just currency markets. There are domestic and international foreign currency markets. Domestic foreign currency markets serve the foreign currency buying, selling, borrowing and lending needs of residents whereas international markets serve non-residents also. Much of the foreign currency lending and borrowing take place in the Euromarkets.

Currencies are also traded in other forms as "derivative contracts" such as currency swaps, options and futures. These are more sophisticated instruments for trading in foreign currencies. You will study about them in the following units in this block.

10.2 <u>Functions</u>

As you know in the past most of the financial markets had a physical centre or say trading floor, where dealers met to transact their trade by "out- cry" method. But things have changed for many of the markets in many countries. Floor trading has been replaced by screen trading, meaning trades are made through the network of telephone and computers from dealers' dealing rooms. Foreign exchange markets have led this trend.

Despite its lack of a physical centre, the forex market is still a market, in the sense that it is a system for bringing buyers and sellers together and for supplying information's about prices and trading activity to participants. 'The dealers responsible for setting prices at which their banks will exchange currencies must have access to the latest prices in the market. This information is provided constantly by computer networks and brokers. Thus, forex market performs very useful functions. The global foreign exchange market has established three principle (major) dealing centers, each operating with a specific time zone: London, New York and Tokyo. London is the main forex market centre.

1. Players

There are various participants in the foreign exchange market. The major participants are commercial banks which act as a clearing house between users and earners of foreign exchange. The banks also deal with foreign exchange brokers. These brokers act as a middleman for a fee between banks. The investors, exporters, importers and tourists also participate in the market. They are users and suppliers of foreign currencies.

Nation's central bank acts as the lender or buyer of last resort when the nation's total foreign exchange earnings are not equal to expenditures. In that case the central bank either draws down its foreign exchange reserves or adds to them.

Most foreign exchange trading is conducted between banks. Non-financial companies wishing to make foreign currency transactions will either deal with a bank or within the same group in case companies have internal procedures for inter-company currency trading

Major international banks trade in many currencies from offices in several countries. Other banks specialize in certain currencies. A bank will want to be a major dealer in a particular currency in any country, if its trading profits are sufficient to support the cost of its dealing operation. The Bank employ a dealer (or dealers) with responsibility for fixing the exchange rates (price) at which the bank will buy or sell Foreign Exchange Markets the currency at any time. Trading profits represent the difference between selling (offer or ask) and buying (bid) prices. We will discuss more about bid-offer prices a little later. Exchange rate movements occur because dealers must continuously adjust their prices to match buying and selling pressures.

2. Currencies Commonly Traded

The US dollar is the most heavily traded currency in the international forex markets. It indicates : a) The role of the dollar as the favored currency of major energy and agricultural commodities b) The power of the US economy and its central role in the . world economy and c) The dollar's status on the traditional reserve' currency and a safe heaven for investors in the times of world crises.

In recent years, world wide trading in Yen and Deutsche Mark has increased in volume and these currencies have begun to challenge the supremacy of the dollar. Euro, the currency of European Union or Euroland, is aimed to challenge the supremacy of US dollar, though the experience till

now does not bear any such sign. Every currency is quoted against dollar and most currency transactions included the dollars as one of the two constituent currencies.

Most non-dollars transactions are called 'cross currency' deals and involve two transactions, a purchase and a sale transaction in exchange for dollars. An 1NWFrench Franc exchange, for example, would be a cross-currency deal, involving the bank in two transactions INR/Dollar and Dollar/French Franc.

	Cross-Currency Deal	
Purpose is	Sell Currency A and Buy Currency B	
Effected by	Sell Currency A Buy US Dollars	Sell US Dollars Buy Currency B

If a bank wants to purchase of a large quantity of French francs in exchange for Sterling, it would sell Sterling and purchase French francs for US dollars in two separate transactions.

3. Trading Hours

The trading hours of the three major foreign exchange markets virtually span 24 hours, expressed in local time, are

London	8.00	16.30
New York	8.30	16.30
Tokyo	8.00	17.30

Allowing for the five-hours time lag between London and New York and nine hours between Tokyo and London, the effective opening hours in UK time (GMT) are virtually round the clock. As one major forex market closes for the day, trading will switch to another centre. For banks and other organisations, with heavy involvement in the forex markets, buying and selling currencies can be done virtually round the clock.

Foreign Exchange Rates

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 view point 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.

Spot and Forward Rates, Currency Swaps, Futures, and Options

Interbank transactions are where two banks trade currencies between themselves. Banks buy and sell huge quantities of foreign currencies. They also accept currency deposits and lend in foreign currency.

Spot Transactions

A spot transaction is a contract to buy or sell a quantity of a foreign currency for immediate settlement. Immediate settlement as per convention of forex market means two working days from the date of contract. The settlement date is also known as 'value date'. The exchange rate for a spot transaction is known as the 'spot rate' and the market where spot 'transactions are conducted is called spot market.

Value Date and Dealing Date for Spot Transactions

As noted above, spot transactions traditionally require two banking day's for settlement. The date on which the spot transaction (agreement) is made is called 'dealing date' and the exchange of currencies will occur two working days after the dealing date. Settlement date is known as 'spot value date', this is the day when the exchanged currencies are delivered with good value into the (bank) accounts of the counter-parties to the transaction. This allows time for necessary paper work and cash transfers to be arranged. These arrangements consist of the verification of the transaction, through an exchange of confirmation, between the counter parties detailing the terms of the deal, the issue of settlement instructions by each counter party to its bank to pay the amount on the appointed date and satisfying exchange control requirements, if any.

When one counter party is a bank, payment may be made by its own branches or by another bank acting as an agent. The actual transfers of funds will be carried out on the value date.

Working days do not include Saturdays, Sundays or bank holidays in either of the countries of the two currencies involved.

To take an example, a spot deal transacted on a Tuesday will be settled on the Thursday of the same week and a deal agreed on a Friday will be settled on the following Tuesday. But there are some exceptions. For example :

A transaction for US dollar against Canadian dollars is often for delivery on the next working day. Forex market in the Middle East are closed on Fridays but open on Saturdays. A transaction involving the exchange of US dollars and Saudi riyals could therefore have a split settlement date, with US dollar delivered on the Friday and the riyals delivered on the Saturday.

There are over night (Om) contracts also available in forex markets.

Interbank Spot Rates

Interbank spot rates are the current selling and buying prices for spot transactions in a currency. These are the benchmark rates for trade transactions. They are used for foreign currency transactions above a certain size. They also provide the basis for an exchange rate for transactions of smaller size.

For example, if a company wishes to buy US$ 5 million spot, its bank will quote the current interbank spot rate for the transaction. However, if the company wished to buy a smaller quantity of dollars; say $ 50,000, the bank would quote a rate less favourable to the customer (although based on interbank rate) in order to obtain a reasonable profit from a relatively small transaction.

The minimum transaction size at which a bank will be willing to deal at the interbank spot rates varies with currencies and individual banks.

Spot rates are quoted as one unit of base currency against a number of units of variable Management currency. Quoted rates are therefore, the rates at which a bank will buy or sell the

base currency: e.g. Pound E 1 = $1.4705 or $1 = Y 1.66.5 10. The spot rates are published in daily newspapers. There are two spot rates for a currency, namely, Bid Rate and Offer (or Ask) Rate.

Forward Transactions

Currency can be traded spot or forward. In a spot transaction, the purchase or sale of currencies takes place for settlement two working days later. With a forward transaction, the purchase or sale is agreed now but will take place at sometime in the future, there by fixing the rate now for a future exchange of currencies. Forward transactions are -- forward exchange contracts (or forward contract). The rate at which forward transactions contracted in the present for future delivery of foreign currency is the forward rate. The market where purchase and sales of currencies are contracted in the present for receipt and delivery in future is called forward market.

Forward Quotation

As you know, the forward rate is the rate quoted by foreign-exchange traders for the purchase or sale of foreign exchange in the future. There is a difference between the spot rate and the forward rate known as the 'spread' or swap rate in the forward market. In order to understand how spot and forward rates are determined, let us now understand how to calculate the spread between the spot and forward rates. In the example given below, we compute the points, or the difference between the spot and forward rates, for a 3 months contract for the Canadian dollar and the Japanese ym quoted in US terms.

	Canadian Dollars	Japanese Yen
Spot	$0.8590	$0.00760
3 months forward	0.8510	0.00762
Points	-80	+2

The spread in Canadian dollars is 80 points; because the forward rate is less than 'the Foreign Exchange Markets spot rate, the Canadian dollar is at a discount in the 3 months forward market. The spread in Japanese yen is only 2 points, and since the forward rate is more than the spot rate, the yen is at a premium in the forward market. Thus, we can say that a foreign currency is at a forward discount if the forward rate is below the spot rate whereas it is at forward premium if the forward rate is above the spot rate.

The premium or discount can also be quoted in terms of annualized per cent. The following fonnula can be used to determine the annualized percentage.

Premium (discount)= $(F_1-S_1)/S_1*12/N*100$

Where F, is the forward rate on the day the contract is entered into, S, is the spot rate on that day, N is the number of months forward, and 100 is used to convert the decimal to per cent amounts (e.g., 0.05 x 100 = 5%).

Discount = (0.8510-.8590)/.8590*12/3*100=3.725%

which means that the Canadian dollar is selling at a discount of 3.725 per cent under the spot rate. Lets work out forward premium rate for yen, in our example:

Premium = (0.00760-0.00762)/0.00760*12/3*100=1.05%

10.3 Foreign Exchange Swaps

A foreign exchange swap refers to a spot sale of a currency combined with a forward repurchase of the same currency—as part of a single transaction. For example, suppose that Citibank receives a $1 million payment today that it will need in three months, but in the meantime it wants to invest this sum in euros. Citibank would incur lower brokerage fees by swapping the $1 million into euros with Frankfurt's Deutsche Bank as part of a single transaction or deal, instead of selling dollars for euros in the spot market today and at the same time repurchasing dollars for euros in the forward market for delivery in three months—in two separate transactions. The swap rate (usually expressed on a yearly basis) is the difference between the spot and forward rates in the currency swap.

Most interbank trading involving the purchase or sale of currencies for future delivery is done not by forward exchange contracts alone but combined with spot transactions in the form of foreign exchange swaps. In April 2010, there were $1,765 billion worth of foreign exchange swaps outstanding. These represented 44 percent of total interbank currency trading. Spot transactions were $1,490 billion or 37 percent of the total. Thus, the foreign exchange market is dominated by the foreign exchange swap and spot markets.

10.4 Foreign Exchange Futures and Options

An individual, firm, or bank can also purchase or sell foreign exchange futures and options. Trading in foreign exchange futures was initiated in 1972 by the International Monetary Market (IMM) of the Chicago Mercantile Exchange (CME). A foreign exchange futures is a forward contract for standardized currency amounts and selected calendar dates traded on an organized market (exchange). The currencies traded on the IMM are the Japanese yen, the Canadian dollar, the British pound, the Swiss franc, the Australian dollar, the Mexican peso, and the euro. International Monetary Market trading is done as contracts of standard size. For example, the IMM Japanese yen contract is for ¥12.5 million, the Canadian dollar contract is for C$100,000, the pound contract is for £62,500, and the euro contract is for ¤125,000. Only four dates per year are available: the third Wednesday in March, June, September, and December (see Case Study 14-4). The IMM imposes a daily limit on exchange rate fluctuations. Buyers and sellers pay a brokerage commission and are required to post a security deposit or margin (about 4 percent of the value of the contract). A market similar to the IMM is the NYSE Euronext Liffe and the Frankfurt-based Eurex.

The futures market differs from a forward market in that in the futures market only a few currencies are traded; trades occur in standardized contracts only, for a few specific delivery dates, and are subject to daily limits on exchange rate fluctuations; and trading takes place only in a few geographical locations, such as Chicago, New York, London, Frankfurt, and Singapore. Futures contracts are usually for smaller amounts than forward contracts and thus are more useful to small firms than to large ones but are somewhat more expensive. Futures contracts can also be sold at any time up until maturity on an organized futures market, while forward contracts cannot. While the market for currency futures is small compared with the forward market, it has grown very rapidly, especially in recent years. (The value of currency futures outstanding was about $475 billion in April 2010). The two markets are also connected by arbitrage when prices differ.

Since 1982, individuals, firms, and banks have also been able to buy foreign exchange options (in Japanese yen, Canadian dollars, British pounds, Swiss francs, and euros) on the Philadelphia Stock Exchange, the Chicago Mercantile Exchange (since 1984), or from a bank. A foreign exchange option is a contract giving the purchaser the right, but not the obligation, to buy (a call option) or to sell (a put option) a standard amount of a traded currency on a stated date (the European option) or at any time before a stated date (the American option) and at a stated price (the strike or exercise price). Foreign exchange options are in standard sizes equal to those of futures IMM contracts. The buyer of the option has the choice to purchase or forego the purchase if it turns out to be unprofitable. The seller of the option, however, must fulfill the contract if the buyer so desires. The buyer pays the seller a premium (the option price) ranging from 1 to 5 percent of the contract's value for this privilege when he or she enters the contract. About $207 billion of currency options were outstanding in April 2010.

In contrast, neither forward contracts nor futures are options. Although forward contracts can be reversed (e.g., a party can sell a currency forward to neutralize a previous purchase) and futures contracts can be sold back to the futures exchange, both must be exercised (i.e., both contracts must be honored by both parties on the delivery date). Thus, options are less flexible than forward contracts, but in some cases they may be more useful. For example, an American firm making a bid to take over an EMU firm may be required to promise to pay a specified amount in euros. Since the American firm does not know if its bid will be successful, it will purchase an option to buy the euros that it would need and will exercise the option if the bid is successful. Case Study 14-4 gives the average daily distribution of global foreign exchange market turnover by instrument, by currency, and by geographical location.

10.5 Foreign Exchange Risks, Hedging, and Speculation

Foreign Exchange Risks

Through time, a nation's demand and supply curves for foreign exchange shift, causing the spot (and the forward) rate to vary frequently. A nation's demand and supply curves for foreign exchange shift over time as a result of changes in tastes for domestic and foreign products in the nation and abroad, different growth and inflation rates in different nations, changes in relative rates of interest, changing expectations, and so on.

For example, if U.S. tastes for EMU products increase, the U.S. demand for euros increases (the demand curve shifts up), leading to a rise in the exchange rate (i.e., a depreciation of the dollar). On the other hand, a lower rate of inflation in the United States than in the European Monetary Union leads to U.S. products becoming cheaper for EMU residents. This tends to increase the U.S. supply of euros (the supply curve shifts to the right) and causes a decline in the exchange rate (i.e., an appreciation of the dollar). Or simply the expectation of a stronger dollar may lead to an appreciation of the dollar. In short, in a dynamic and changing world, exchange rates frequently vary, reflecting the constant change in the numerous economic forces simultaneously at work.

Hedging

Hedging refers to the avoidance of a foreign exchange risk, or the covering of an open position. For example, the importer of the previous example could borrow ¤100,000 at the present spot rate of SR = $1/¤1 and leave this sum on deposit in a bank (to earn interest) for three months, when payment is due. By so doing, the importer avoids the risk that the spot rate in three months will be higher than today's spot rate and that he or she would have to pay more than $100,000 for the imports. The cost of insuring against the foreign exchange risk in this way is the positive difference between the interest rate the importer has to pay on the loan of ¤100,000 and the lower interest rate he or she earns on the deposit of ¤100,000. Similarly, the exporter could borrow ¤100,000 today, exchange this sum for $100,000 at today's spot rate of SR = $1/¤1, and deposit the $100,000 in a bank to earn interest. After three months, the exporter would repay the loan of ¤100,000 with the payment of ¤100,000 he or she receives. The cost of avoiding the foreign exchange risk in this manner is, once again, equal to the positive difference between the borrowing and deposit rates of interest.

Covering the foreign exchange risk in the spot market as indicated above has a very serious disadvantage, however. The businessperson or investor must borrow or tie up his or her own funds for three months. To avoid this, hedging usually takes place in the forward market, where no borrowing or tying up of funds is required. Thus, the importer could buy euros forward for delivery (and payment) in three months at today's three-month forward rate. If the euro is at a three-month forward premium of 4 percent per year, the importer will have to pay $101,000 in three months for the ¤100,000 needed to pay for the imports. Therefore, the hedging cost will be $1,000 (1 percent of $100,000 for the three months). Similarly, the exporter could sell pounds forward for delivery (and payment) in three months at today's three-month forward rate, in anticipation of receiving the payment of ¤100,000 for the exports. Since no transfer of funds takes place until three months have passed, the exporter need not borrow or tie up his or her own funds now. If the euro is at a three-month forward discount of 4 percent per year, the exporter will get only $99,000 for the ¤100,000 he or she delivers in three months. On the other hand, if the euro is at a 4 percent forward premium, the exporter will receive $101,000 in three months with certainty by hedging.

A foreign exchange risk can also be hedged and an open position avoided in the futures or options markets. For example, suppose that an importer knows that he or she must pay ¤100,000 in three months and the three-month forward rate of the pound is FR = $1/¤1. The importer could either purchase the ¤100,000 forward (in which case he or she will have to pay $100,000 in three months and receive the ¤100,000) or purchase an option to purchase ¤100,000 in three months, say at $1/¤1, and pay now the premium of, say, 1 percent (or $1,000 on the $100,000 option). If in three months the spot rate of the pound is SR = $0.98/¤1, the importer would have to pay $100,000 with the forward contract, but could let the option expire unexercised and get the ¤100,000 at the cost of only $98,000 on the spot market. In that case, the $1,000 premium can be regarded as an insurance policy and the importer will save $2,000 over the forward contract.

In a world of foreign exchange uncertainty, the ability of traders and investors to hedge greatly facilitates the international flow of trade and investments. Without hedging there would be smaller international capital flows, less trade and specialization in production, and smaller benefits from trade. Note that a large firm, such as a multinational corporation, that has to make and receive a large number of payments in the same foreign currency at the same time in the future need only hedge its net open position. Similarly, a bank has an open position only in the amount of its net balance on contracted future payments and receipts in each foreign currency at each future date. The bank closes as much of its open positions as possible by dealing with other banks (through foreign exchange brokers), and it may cover the remainder in the spot, futures, or options markets.

International Economics

Speculation

Speculation is the opposite of hedging. Whereas a hedger seeks to cover a foreign exchange risk, a speculator accepts and even seeks out a foreign exchange risk, or an open position, in the hope of making a profit. If the speculator correctly anticipates future changes in spot rates, he or she makes a profit; otherwise, he or she incurs a loss. As in the case of hedging, speculation can take place in the spot, forward, futures, or options markets — usually in the forward market. We begin by examining speculation in the spot market.

If a speculator believes that the spot rate of a particular foreign currency will rise, he or she can purchase the currency now and hold it on deposit in a bank for resale later. If the speculator is correct and the spot rate does indeed rise, he or she earns a profit on each unit of the foreign currency equal to the spread between the previous lower spot rate at which he or she purchased the foreign currency and the higher subsequent spot rate at which he or she resells it. If the speculator is wrong and the spot rate falls instead, he or she incurs a loss because the foreign currency must be resold at a price lower than the purchase price.

If, on the other hand, the speculator believes that the spot rate will fall, he or she borrows the foreign currency for three months, immediately exchanges it for the domestic currency at the prevailing spot rate, and deposits the domestic currency in a bank to earn interest. After three months, if the spot rate on the foreign currency is lower, as anticipated, the speculator earns a profit by purchasing the currency (to repay the foreign exchange loan) at the lower spot rate. (Of course, for the speculator to earn a profit, the new spot rate must be sufficiently lower than the previous spot rate to also overcome the possibly higher interest rate paid on a foreign currency deposit over the domestic currency deposit.) If the spot rate in three months is higher rather than lower, the speculator incurs a loss.

In both of the preceding examples, the speculator operated in the spot market and either had to tie up his or her own funds or had to borrow to speculate. It is to avoid this serious shortcoming that speculation, like hedging, usually takes place in the forward market. For example, if the speculator believes that the spot rate of a certain foreign currency will be higher in three months than its present three-month forward rate, the speculator purchases a specified amount of the foreign currency forward for delivery (and payment) in three months. After three months, if the speculator is correct, he or she receives delivery of the foreign currency at the lower agreed forward rate and immediately resells it at the higher spot rate, thus realizing a profit. Of course, if the speculator is wrong and the spot rate in three months is lower than the agreed forward rate, he or she incurs a loss. In any event, no currency changes hands until the three months are over (except for the normal 10 percent security margin that the speculator is required to pay at the time he or she signs the forward contract). As another example, suppose that the three-month forward rate on the euro is FR = \$1.01/£ 1 and the speculator believes that the spot rate of the euro in three months will be SR = \$0.99/£1. The speculator then sells euros forward for delivery in three months. After three months, if the speculator is correct and the spot rate is indeed as anticipated, he or she purchases euros in the spot market at SR = \$0.99/£1 and immediately resells them to fulfill the forward contract at the agreed forward rate of \$1.01/£1, thereby earning a profit of 2 cents per euro. If the spot rate in three months is instead SR = \$1.00/£1, the speculator earns only 1 cent per euro. If the spot rate in three months is \$1.01/£1, the speculator earns nothing. Finally, if the spot rate in three months is higher than the forward rate at which the speculator sold the forward euros, the speculator incurs a loss on each euro equal to the difference between the two rates.

As an alternative, the speculator (who believes that the euro will depreciate) could have purchased an option to sell a specific amount of euros in three months at the rate of, say, \$1.01/£1. If the speculator is correct and the spot rate of the euro in three months is indeed \$0.99/£1 as anticipated, he or she will exercise the option, buy euros in the spot market at \$0.99/£1, and receive \$1.01/£1 by exercising the option. By so doing, the speculator earns 2 cents per euro (from which he or she deducts the premium or the option price to determine the net gain). In this case, the result will be the same as with the forward contract, except that the option price may exceed the commission on the forward contract so that his or her net profit with the option may be a little less. On the other hand, if the speculator is wrong and the spot rate of the euro is much higher than expected after three months, he or she will let the option contract expire unexercised and incur only the cost of the premium or option price. With the forward contract, the speculator would have to honor his or her commitment and incur a much larger loss.

When a speculator buys a foreign currency on the spot, forward, or futures market, or buys an option to purchase a foreign currency in the expectation of reselling it at a higher future spot rate, he or she is said to take a long position in the currency. On the other hand, when the speculator

borrows or sells forward a foreign currency in the expectation of buying it at a future lower price to repay the foreign exchange loan or honor the forward sale contract or option, the speculator is said to take a short position (i.e., the speculator is now selling what he or she does not have).

Speculation can be stabilizing or destabilizing. Stabilizing speculation refers to the purchase of a foreign currency when the domestic price of the foreign currency (i.e., the exchange rate) falls or is low, in the expectation that it will soon rise, thus leading to a profit. Or it refers to the sale of the foreign currency when the exchange rate rises or is high, in the expectation that it will soon fall. Stabilizing speculation moderates' fluctuations in exchange rates over time and performs a useful function.

On the other hand, destabilizing speculation refers to the sale of a foreign currency when the exchange rate falls or is low, in the expectation that it will fall even lower in the future, or the purchase of a foreign currency when the exchange rate is rising or is high, in the expectation that it will rise even higher in the future. Destabilizing speculation thus magnifies exchange rate fluctuations over time and can prove very disruptive to the international flow of trade and investments. Whether speculation is primarily stabilizing or destabilizing is a very important question, to which we return in Chapter 16, when we analyze in depth the operation of a flexible exchange rate system, and in Chapter 20, when we compare the operation of a flexible exchange rate system with that of a fixed exchange rate system. In general, it is believed that under "normal" conditions speculation is stabilizing, and we assume so here.

Speculators are usually wealthy individuals or firms rather than banks. However, anyone who has to make a payment in a foreign currency in the future can speculate by speeding up payment if he or she expects the exchange rate to rise and delaying it if he or she expects the exchange rate to fall, while anyone who has to receive a future payment in a foreign currency can speculate by using the reverse tactics. For example, if an importer expects the exchange rate to rise soon, he or she can anticipate the placing of an order and pay for imports right away. On the other hand, an exporter who expects the exchange rate to rise will want to delay deliveries and extend longer credit terms to delay payment. These are known as leads and lags and are a form of speculation.

In recent years, a number of huge losses have been incurred by speculating on the movement of exchange rates. One of the most spectacular was the case of Showaka Shell Sekiyu, a Japanese oil refiner and distributor 50 percent owned by Royal Dutch Shell. From 1989 until 1992, the finance department of Showaka bet $6.44 billion worth in the futures market that the dollar would appreciate. When the dollar depreciated (and the yen appreciated—see Figure 14.3) instead, Showaka lost $1.37 billion. More recently, there was the five-year $750 million cumulative foreign exchange loss by John Rusnak of All first Bank, the U.S. subsidiary of Allied Irish Banks, Ireland's largest bank, on trading the U.S. dollar against the Japanese yen discovered in February 2002. And in January 2004, four foreign currency dealers at the National Australia Bank incurred losses of $360 million in three months of unauthorized foreign exchange trades. Yes, speculation in foreign exchange is very risky and can lead to huge losses.

Summary

The market where one currency is traded for another is called forex market. Its primary function is to facilitate international trade and investment. The market consists of the interbank market in which major banks deal with each other and the retail market, in which banks deal with their commercial customers. Foreign exchange market has two segments; (a) spot market; and (b) forward market. In spot market, currencies are traded if for settlement two business days after. In the forward market contracts are made to buy or sell currencies for future delivery. The foreign exchange quotation cc\? be in direct, indirect or cross. They can also be expressed in European terms or American terms. The participants in the foreign exchange markets are commercial banks, brokers, customers, MNCs and central banks. Indian forex market is in a developing stage. All the currencies are not traded in the markets.

Keywords

- Foreign Exchange Market: The market in which currencies are brought and sold.
- Spot Transaction: A transaction in which the exchange of currencies occur two business days later.

- Forward Transaction: A transaction in which exchange of currencies take place in the future at a rate which is fixed on a day when the transaction is entered into.
- Exchange Rate : The price at which one currency is trade for another.
- Speculation: Speculation involves trading a financial instrument involving high risk, in expectation of significant returns.

Self Assessment

1. Hedging refers to .
A. the covering of a foreign exchange risk,
B. foreign exchange speculation,
C. the acceptance of foreign exchange risk,
D. interest rate arbitrage

2. Which of the following is not a function of the foreign exchange market?

A. Import and export of goods and services,

B. transfer of purchasing power,

C. coverage of risk,

D. provision of credit instruments and credit

3. …………… helps to equalize the exchange rate in all part of the foreign exchange market.

A. speculation,

B. interest arbitrage

C. hedging

D. None of the above

4. Forward market in foreign exchange refers to market.

A. Short and long run,

B. a short run,

C. a long run,

D. a spot

5. Speculation in foreign exchange market refers to ………………..

A. accepting risk to make profits,

B. hedging,

C. interest arbitrage,

D. none of the above

6. The rate at which the foreign currency is exchanged at current rate is called rate……………..

A. spot,

B. forward,

C. arbitrage,

D. none of the above

7. Arbitrage refers to purchase and sale of an asset…………………..

A. at low price in one market and its simultaneous sale at higher price in another market, b. at high price in one market and its sale at lower price in another market,

B. purchase and sale at the same price,

C. all of the above

8. Speculators deal in ……………

A. spot and forward exchange rate,

B. only spot exchange rate,

C. only forward exchange rate,

D. none of the above

9. Hedgers enter foreign exchange market to …………….

A. cover risk,

B. earn margin,

C. speculate,

D. none of the above

10. The foreign exchange rate of a nation is influenced by ……………

A. all of the below,

B. speculators,

C. hedgers,

D. arbitrators

11. The foreign exchange rate of a nation is influenced by ……………………

A. all of the below,

B. BoP,

C. Interest rate

D. speculation

12. Foreign exchange market is a place where ……………..

A. only exporters convert the foreign currencies c

B. only foreign tourists exchange currencies,

C. various foreign currencies are exchanged,

D. only importers convert the foreign currencies

13. The function of foreign exchange market that helps in clearing international transactions is known as ………….

A. credit,

B. transfer,

C. hedging,

D. speculation

14. Provision of documentary bills of exchange in international payments is an example of function………………..

A. transfer,

B. speculation,

C. hedging

D. creation of credit

15. The function of foreign exchange market, which is concerned with fixing of forward exchange rates is known as ………………

A. transfer

B. Hedging,

C. speculation,

D. arbitrage

Answer for Self Assessment

l.	A	2.	A	3.	A	4.	A	5.	A
6.	A	7.	A	8.	A	9.	A	10.	A
11.	A	12.	C	13.	B	14.	D	15.	B

Review Questions

1. What are foreign exchange markets? What is their most important function? How is this function performed?

2. What is meant by a spot transaction and the spot rate? a forward transaction and the forward rate? What is meant by a forward discount? forward premium? What is a currency swap? What is a foreign exchange futures? a foreign exchange option?

3. What is meant by foreign exchange risk? How can foreign exchange risks be covered in the spot, forward, futures, or options markets? Why does hedging not usually take place in the spot market?

4. What is meant by speculation? How can speculation take place in the spot, forward, futures, or options markets? Why does speculation not usually take place in the spot market? What is stabilizing speculation? destabilizing speculation?

5. Explain the working of spot and forward exchange markets.

6. Write notes on : hedging, speculation.

📖 ## Further Readings

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Unit 11: Price Adjustment Mechanism

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Objectives

- Understand the effect of a change in the exchange rate on the nation's current account
- Understand the meaning and importance of the ''stability of the foreign exchange market''
- Understand the meaning and importance of the exchange rate ''pass-through'

Introduction

In this chapter, we examine how a nation's current account is affected by price changes under flexible and fixed exchange rate systems. For simplicity, in this chapter we assume that there are no autonomous international private capital flows. That is, international private capital flows take place only as passive responses to cover (i.e., to pay for) temporary trade imbalances. We also assume that the nation wants to correct a deficit in its current account (and balance of payments) by exchange rate changes. (The correction of a current account and balance-of-payments surplus would generally require the opposite techniques.) Since this traditional exchange rate model is based on trade flows and the speed of adjustment depends on how responsive (elastic) imports and exports are to price (exchange rate) changes, it is called the trade or elasticity approach.

11.1 Adjustment With Flexible Exchange Rates

The method of correcting a deficit in a nation's current account or balance of payments by a depreciation or a devaluation of the nation's currency. A depreciation implies a flexible exchange rate system. A devaluation, on the other hand, refers to the deliberate (policy) increase in the exchange rate by the nation's monetary authorities from one fixed or pegged level to another. However, since both a depreciation and a devaluation operate on prices to bring about adjustment in the nation's current account and the balance of payments, they are both referred to as the price adjustment mechanism and are discussed together here. This is to be distinguished from the income adjustment mechanism, which relies on income changes in the nation and abroad and will be

examined in the next chapter. We begin by examining the process of adjustment itself, and then show how the demand and supply schedules of foreign exchange are derived.

11.2 Balance-of-Payments Adjustments with Exchange Rate Changes

The process of correcting a deficit in a nation's balance of payments by a depreciation or devaluation of its currency is shown in Figure 16.1. In the figure, it is assumed that the United States and the European Monetary Union are the only two economies in the world and that there are no international capital flows, so that the U.S. demand and supply curves for euros reflect only trade in goods and services. The figure shows that at the exchange rate of R = $1/£1, the quantity of euros demanded by the United States is £12 billion per year, while the quantity supplied is £8 billion. As a result, the United States has a deficit of ¤4 billion (AB) in its balance of payments.

If the U.S. demand and supply curves for euros were given by D£ and S£, a 20 percent devaluation or depreciation of the dollar, from R = $1/£1 to R = $1.20/£1, would completely eliminate the U.S. deficit. That is, at R = $1.20/£1, the quantity of euros demanded.
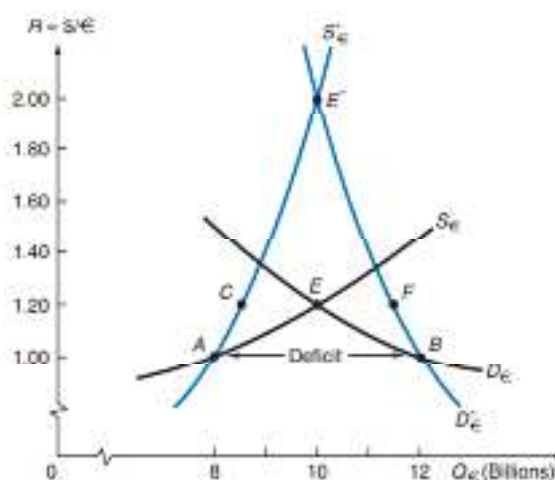
Fig. 1 Balance-of-Payments Adjustments with Exchange Rate Changes.

and the quantity supplied would be equal at £10 billion per year (point E in the figure), and the U.S. balance of payments would be in equilibrium. If, however, the U.S. demand and supply curves for euros were less elastic (steeper), as indicated by D∗ £ and S∗ £, the same 20 percent devaluation would only reduce the U.S. deficit to£3 billion (CF in the figure), and a 100 percent devaluation or depreciation of the dollar, from R = $1/£1 to R = $2/£1, would be required to completely eliminate the deficit (point E∗ in the figure). Such a huge devaluation or depreciation of the dollar might not be feasible (for reasons examined later).

Thus, it is very important to know how elastic the U.S. demand and supply curves for euros are. In some cases, the shape of the deficit nation's demand and supply curves for foreign exchange may be such that a devaluation or depreciation would actually increase, rather than reduce or eliminate, the deficit in its balance of payments. These crucial questions are examined next by showing how a nation's demand and supply schedules for foreign exchange are derived.

11.3 Derivation of the Demand Curve for Foreign Exchange

The U.S. demand curve for euros (D£) shown in Figure 1 is derived from the demand and supply curves of U.S. imports in terms of euros (shown in the left panel of Figure 2). On the other hand, the U.S. supply curve for euros (S£) shown in Figure 16.1 is derived from the demand and supply curves of U.S. exports in terms of euros (shown in the right panel of Figure 2). Let us start with the derivation of the U.S. demand curve for euros (D£).

Fig. 2 Derivation of the U.S. Demand and Supply Curves for Foreign Exchange.

In the left panel of Figure 2, DM is the U.S. demand for imports from the European Monetary Union in terms of euros at R = $1/£1, while SM is the EMU supply of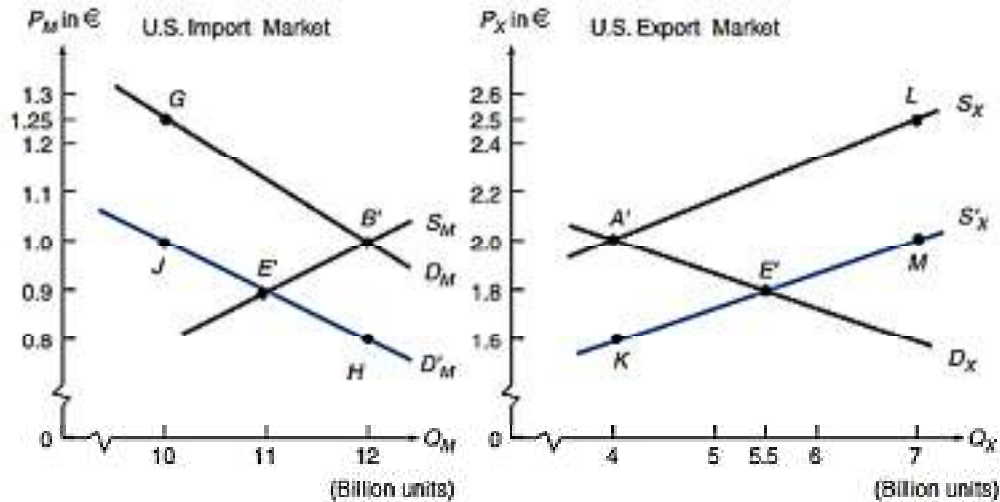 imports to the United States. With DM and SM, the euro price of U.S. imports is PM = £1, and the quantity of U.S. imports is QM = 12 billion units per year, so that the quantity of euros demanded by the United States is £12 billion (point B£ in the left panel of Figure 2). This corresponds to point B on the U.S. D¤ in Figure 1.

When the dollar depreciates by 20 percent to R = $1.20/£1, SM remains unchanged, but DM shifts down by 20 percent to D£ M (see the left panel of Figure 16.2). The reason is that for the United States to continue to demand 12 billion units of imports (as at point B£ on DM), the euro price of U.S. imports would have to fall from PM = £1 to PM = £0.8, or by the full 20 percent of the depreciation of the dollar, in order to leave the dollar price of imports unchanged (point H on D£ M). However, at euro prices below PM = £1, the European Monetary Union will supply smaller quantities of imports to the United States (i.e., the European Monetary Union will move down along SM), while the United States will demand smaller quantities of imports at euro prices above PM = £0.8 (i.e., the United States will move up along), until a compromise on price at the new equilibrium point E is reached (see the left panel of Figure 2). The student should reread this paragraph and the previous one, and carefully study the left panel of Figure 2 and its relationship to Figure 1 because this is a rather important topic and one of the most challenging in international finance.

Note that D£ M is not parallel to DM because the shift is of a constant percentage. Thus, a 20 percent downward shift from point B£ (£1.00) is only £0.20, while the same 20 percent downward shift from point G (£1.25) is £0.25. With D£ M and SM, PM = £0.9 and QM = 11 billion, so that the quantity of euros demanded by the United States falls to £9.9 billion (point E£ in the left panel of Figure 16.2). This corresponds to point E (with ¤9.9 billion rounded to £10 billion) on D£ in Figure 16.1. Thus, the quantity of euros demanded by the United States falls from ¤12 billion (given by point B£in the left panel of Figure 16.2) at R = $1/£1 to £10 billion (given by point E£) at R = $1.20/£1. This corresponds to a movement from point B to point E along D£ in Figure 16.1. Only in the unusual case when DM has zero elasticity (is vertical) will the U.S. quantity demanded of euros remain exactly the same after the devaluation or depreciation of the dollar as it was before, because in that case the downward shift in DM leaves DM unchanged (this is assigned as an end-of-chapter problem). Thus, aside from the unusual case where DM is vertical, a devaluation or depreciation of the dollar always leads to a reduction in the U.S. quantity demanded of euros, so that D£ (in Figure 1) is always negatively sloped. The reduction in the U.S. quantity demanded of euros when the dollar is devalued or is allowed to depreciate results because both the euro price of U.S. imports and the quantity of U.S. imports fall (see the left panel of Figure 2). Furthermore, given SM, the less elastic (steeper) is DM, the smaller is the reduction in the U.S. quantity demanded of euros and the less elastic (steeper) is the U.S. demand curve for euros. (This is assigned as another end-of-chapter problem.) In that case, a 20 percent devaluation of the dollar might be represented by a movement from point B to point F along D∗ £ rather than by a movement from point B to point E along D£ in Figure 1.

11.4 <u>Derivation of the Supply Curve for Foreign Exchange</u>

In the right panel of Figure 16.2, DX is the EMU demand for U.S. exports in terms of euros, and SX is the U.S. supply of exports to the European Monetary Union at R = $1/£1. With DX and SX , the euro price of U.S. exports is PX = £2, and the quantity of U.S. exports is QX = 4 billion units, so that the U.S. quantity of euros earned or supplied is £8 billion (point A in the right panel of Figure 2). This corresponds to point A on S£ in Figure 1.

When the dollar is devalued or is allowed to depreciate by 20 percent to R = $1.20/£1, DX remains unchanged, but SX shifts down by 20 percent to S £X (see the right panel of Figure 2). The reason is that the United States would now be willing to export 4 billion units (the same as at point A on SX) at the euro price of PX = £1.6, or 20 percent lower than before the depreciation of the dollar, because each euro is now worth 20 percent more in terms of dollars (point K on S£X in the figure). However, at euro prices below PX =£2, the European Monetary Union will demand greater quantities of U.S. exports (i.e., the European Monetary Union will move down along DX), while the United States will supply greater quantities of exports at euro prices above PX = £1.6 (i.e., the United States will move up along S £ X), until the new equilibrium point E£ is reached (see the right panel of Figure 2).

Note that S £X is not parallel to SX because the shift is of a constant percentage. With DX and S £ X , PX = £1.8 and QX = 5.5 billion units, so that the quantity of euros supplied to the United States increases to £9.9 billion (1.8 times 5.5). This is given by point E£ in the right panel of Figure 16.2 and corresponds to point E (with £9.9 billion rounded to £10 billion) on S¤ in Figure 16.1. Thus, the quantity of euros supplied to the United States rises from £8 billion (given by point A£ in the right panel of Figure 16.2) at R= $1/£1 to £10 billion (given by point E£at R = $1.20/£1. This corresponds to a movement from point A to point E along S£ in Figure 1.

f DX had been unitary elastic, the devaluation or depreciation of the dollar would have left the U.S. quantity supplied of euros completely unchanged, so that the U.S. supply curve of euros would have been vertical, or have zero elasticity. (The same would be true if SX were vertical, so that a depreciation or devaluation of the dollar would leave SX unchanged.) Finally, if DX had been price inelastic, a devaluation or depreciation of the dollar would have actually reduced the U.S. quantity supplied of euros, so that the U.S. supply curve of euros would have been negatively sloped. (These are assigned as end-of-chapter problems.) Thus, while the U.S. demand curve for euros is almost always negatively sloped, the U.S. supply curve of euros could be positively sloped, vertical, or even negatively sloped, depending on whether DX is elastic, unitary elastic, or inelastic, respectively.

Effect of Exchange Rate Changes on Domestic Prices and the Terms of Trade

Up to now, we have discussed the demand and supply curves of U.S. imports and exports in terms of the foreign currency (the euro) because we were interested in the effect of a devaluation or depreciation of the dollar on the U.S. balance of payments. However, a devaluation or depreciation of the dollar also has very important effects on U.S. prices in terms of dollars. That is, the depreciation or devaluation of the dollar stimulates the production of U.S. import substitutes and exports and will lead to a rise in prices in the United States. Thus, while a devaluation or depreciation of the dollar reduces the euro price of U.S. imports and exports (see Figure 2), it increases the dollar price of U.S. import substitutes and exports and is inflationary.

The greater the devaluation or depreciation of the dollar, the greater is its inflationary impact on the U.S. economy and the less feasible is the increase of the exchange rate as a method of correcting the deficit in the U.S. balance of payments. Note that the increase in the dollar price of import substitutes and exports in the United States is a necessary incentive to U.S. producers to shift resources from the production of nontraded or purely domestic goods to the production of import substitutes and exports. But this also reduces the price advantage conferred on the United States by the devaluation or depreciation of the dollar. This is even more so for developing countries.

Export and import prices must both be measured in terms of either the domestic or the foreign currency. Since the prices of both the nation's exports and imports rise in terms of the domestic currency as a result of its depreciation or devaluation, the terms of trade of the nation can rise, fall, or remain unchanged, depending on whether the price of exports rises by more than, less than, or the same percentages as the price of imports.

From Figure 2 we already know the exact change in the euro prices of U.S. exports and imports as a result of the 20 percent depreciation or devaluation of the dollar and we can use these prices to measure the change in the U.S. terms of trade. Before the depreciation or devaluation of the dollar, PX = ¤2 (see point A in the right panel of Figure 16.2) and PM = £1 (point B in the left panel), so that PX /PM = 2/1 = 2, or 200 percent. After the 20 percent depreciation or devaluation of the dollar, PX = £1.8 (point E in the right panel) and PM = £0.9 (point E in the left panel), so that PX /PM = 1.8/0.9 = 2, or 200 percent. Therefore, the U.S. terms of trade in this case remain unchanged. The conclusion would be the same if we used the dollar prices of U.S. exports and imports to measure the change in the U.S. terms of trade.

An interesting situation arises when an industrial nation begins to exploit a domestic natural resource that it previously imported. An example of this is provided by Great Britain when it started to extract substantial quantities of petroleum from the North Sea in 1976, thus eliminating the need to import it. The nation's exchange rate might then appreciate so much as to cause the nation to lose international competitiveness in its traditional industrial sector and even face deindustrialization. This is known as the Dutch disease. The name is derived from the Netherlands' loss of relative competitiveness in its traditional industrial sector as a result of the appreciation of the Dutch florin after the development of the Dutch natural gas industry, which eliminated the need for the Netherlands to import natural gas.

11.5 Stability of Foreign Exchange Markets

We examine the meanings of and the conditions for stability of the foreign exchange market. We have a stable foreign exchange market when a disturbance from the equilibrium exchange rate gives rise to automatic forces that push the exchange rate back toward the equilibrium level. We have an unstable foreign exchange market when a disturbance from equilibrium pushes the exchange rate further away from equilibrium.

Stable and Unstable Foreign Exchange Markets

A foreign exchange market is stable when the supply curve of foreign exchange is positively sloped or, if negatively sloped, is less elastic (steeper) than the demand curve of foreign exchange. A foreign exchange market is unstable if the supply curve is negatively sloped and more elastic (flatter) than the demand curve of foreign exchange. These conditions are illustrated in Figure 3.

The left panel of Figure 3 repeats D£ and S£ from Figure 1. With D£ and S£, the equilibrium exchange rate is R = \$1.20/£1, at which the quantity of euros demanded and the quantity supplied are equal at £10 billion per year (point E in the left panel of Figure 3). If, for whatever reason, the exchange rate fell to R = \$1/£1, there would be an excess demand for euros (a deficit in the U.S. balance of payments) of £4 billion (AB), which would automatically push the exchange rate back up toward the equilibrium rate of R = \$1.20/£1. On the other hand, if the exchange rate rose to R = \$1.40/£1, there would be an excess quantity supplied of euros (a surplus in the U.S. balance of payments) of £3 billion (NR), which would automatically drive the exchange rate back down toward the equilibrium rate of R = \$1.20/£1. Thus, the foreign exchange market shown in the left panel of Figure 3 is stable.

The center panel of Figure 3 shows the same D£ as in the left panel, but S¤ is now negatively sloped but steeper (less elastic) than D£. Once again, the equilibrium exchange rate is R = \$1.20/£1 (point E). At the lower than equilibrium exchange rate R = \$1/£1, there is an excess demand for euros (a deficit in the U.S. balance of payments) equal to The center panel of Figure 16.3 shows the same D£ as in the left panel, but S£ is now negatively sloped but steeper (less elastic) than D£. Once again, the equilibrium exchange rate is R = \$1.20/£1 (point E). At the lower than equilibrium exchange rate R = \$1/£1, there is an excess demand for euros (a deficit in the U.S. balance of payments) equal to £1.5 billion (UB), which automatically pushes the exchange rate back up toward the equilibrium rate of R = \$1.20/£1. At the higher than equilibrium exchange rate of R = \$1.40/£1, there is an excess supply of euros (a surplus in the U.S. balance of payments) of £1 billion (NT), which automatically pushes the exchange rate back down toward the equilibrium rate of R = \$1.20/£1. In this case also, the foreign exchange market is stable1.5 billion (UB), which automatically pushes the exchange rate back up toward the equilibrium rate of R = \$1.20/£1. At the higher than equilibrium exchange rate of R = \$1.40/£1, there is an excess supply of euros (a surplus in the U.S. balance of payments) of ¤1 billion (NT), which automatically pushes the exchange rate back down toward the equilibrium rate of R = \$1.20/£1. In this case also, the foreign exchange market is stable.
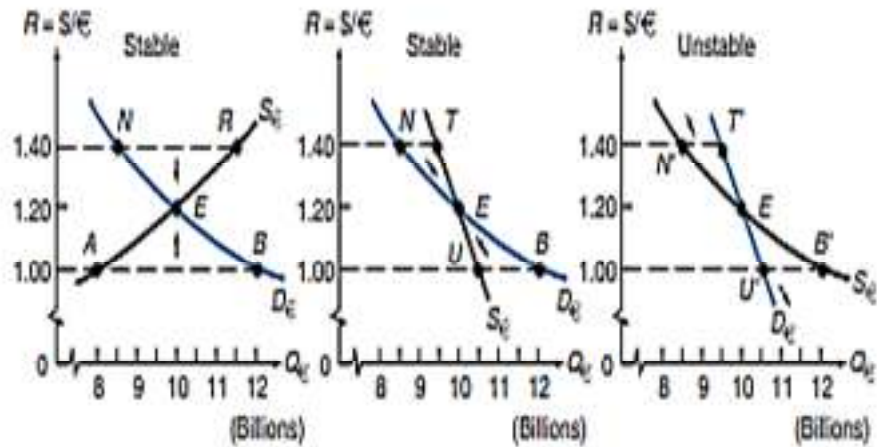
Fig. 3 Stable and Unstable Foreign Exchange Markets.

The right panel of Figure 3 looks the same as the center panel, but the labels of the demand and supply curves are reversed, so that now S£ is negatively sloped and flatter (more elastic) than D£. The equilibrium exchange rate is still R = \$1.20/£1 (point E). Now, however, at any exchange rate lower than equilibrium, there is an excess quantity supplied of euros, which automatically drives the exchange rate even lower and farther away from the equilibrium rate. For example, at R = \$1/£1, there is an excess quantity supplied of euros of £1.5 billion (U£B£), which pushes the exchange rate even lower and farther away from R = \$1.20/£1. On the other hand, at R = \$1.40/£1, there is an excess quantity demanded for euros of ¤1 billion (N'T' which automatically pushes the exchange rate even higher and farther away from the equilibrium rate. Thus, the foreign exchange market in the right panel is unstable.

When the foreign exchange market is unstable, a flexible exchange rate system increases rather than reduces a balance-of-payments disequilibrium. Then a revaluation or an appreciation rather than a devaluation of the deficit nation's currency is required to eliminate or reduce a deficit, while a devaluation would be necessary to correct a surplus. These policies are just the opposite of those required under a stable foreign exchange market. Determining whether the foreign exchange market is stable or unstable is, therefore, crucial. Only after the foreign exchange market has been determined to be stable will the elasticity of D£ and S£ (and thus the feasibility of correcting a balance-of-payments disequilibrium with a depreciation or devaluation of the deficit nation's currency) become important.

11.6 Elasticities in the Real World

In this section, we examine how the price elasticity of demand for imports and exports is measured and present some real-world estimates, discuss the J-curve effect, and examine the "pass-through" of exchange rate changes to domestic prices.

a. Elasticity Estimates

The Marshall–Lerner condition postulates a stable foreign exchange market if the sum of the price elasticities of the demand for imports and the demand for exports exceeds 1 in absolute value. However, the sum of these two elasticities will have to be substantially greater than 1 for the nation's demand and supply curves of foreign exchange to be sufficiently elastic to make a depreciation or devaluation feasible (i.e., not excessively inflationary) as a method of correcting a deficit in the nation's balance of payments. Thus, it is very important to determine the real-world value of the price elasticity of the demand for imports and exports.

Before World War II, it was widely believed not only that the foreign exchange market was stable but that the demand for and the supply of foreign exchange were very elastic. Marshall, among others, advanced this view in his Money, Credit and Commerce, published in 1923, but offered no empirical support for his belief.

During the 1940s, a number of econometric studies were undertaken to measure price elasticities in international trade. Two representative studies were undertaken by Chang, one in 1945 to measure the price elasticity of the demand for imports in 21 nations for which data existed from 1924 to 1938, and the other in 1948 to measure the price elasticity of the demand for exports of 22 nations over the same period. Chang found that the sum of the demand elasticities on the average barely exceeded 1, so that while the foreign exchange market was stable, the demand and supply curves of foreign exchange were probably fairly steep and inelastic (i.e., as D∗ £ and S ∗ £ rather than as D£ and S£ in Figure 1). Other studies reached similar conclusions, confirming that the sum of the elasticities of the demand for imports and the demand for exports was either below or very close to 1 in absolute value. Thus, the prewar elasticity optimism was replaced by postwar elasticity pessimism. However, writing in 1950, Orcutt provided some convincing reasons for the view that the regression technique used to estimate elasticities led to gross underestimation of the true elasticities in international trade. In short, it was likely that Marshall had been broadly correct, while the new econometric estimates, though seemingly more precise, were in fact likely to be far off the mark.

One reason advanced by Orcutt for the belief that the early econometric studies of the 1940s grossly underestimated the price elasticity of the demand for imports and exports results from the identification problem in estimation. This is explained with the aid of Figure 16.4. This figure is similar to the right panel of Figure 2 in that it shows the effect of a depreciation or devaluation of the dollar on the U.S. export market when the foreign demand curve and the U.S. supply curve of exports are expressed in terms of the foreign currency (euros). Suppose that points E and E∗ are, respectively, the equilibrium points actually observed before and after the United States devalues its currency or allows it to depreciate (with none of the curves in Figure 16.4 being observed). The downward shift from SX to S ∗X in Figure 16.4 is due to the depreciation or devaluation of the dollar (as in the right panel of Figure 2). The depreciation or devaluation of the dollar does not affect the foreign demand for U.S. exports.

If no other change (such as a change in tastes for U.S. exports) occurs, then the estimated foreign demand curve of U.S. exports is inelastic, as shown by DX in Figure 16.4. However, equilibrium points E and E∗ are also consistent with elastic demand curve D′ X , which shifts down to D′′ X as a result, for example, of reduced foreign tastes for U.S. exports. Regression analysis will always measure the low elasticity of demand DX even if the true demand is elastic and given by D′ X and D′′X (i.e., regression techniques fail to identify demand curves D′ X and D′′ X). Since shifts in demand due to changes in tastes or other unaccounted forces frequently occur over time, estimated elasticities are likely to greatly underestimate true elasticities.

The estimated elasticities of the 1940s also measured short-run elasticities in that they were based on quantity responses to price changes over a period of one year or less. Junz and Rhomberg (1973) have identified five possible lags in the quantity response to price changes in international trade. These are the recognition lag before the price change becomes evident, the decision lag to take advantage of the change in prices, the delivery lag of new orders placed as a result of price changes, the replacement lag to use up available inventories before new orders are placed, and finally the production lag to change the output mix as a result of price changes. Junz and Rhomberg estimated that it takes about three years for 50 percent of the final long-run quantity response to take place and five years for 90 percent to occur. By measuring the quantity response only during the year of the price change, the early econometric studies of the 1940s greatly underestimated long-run elasticities.
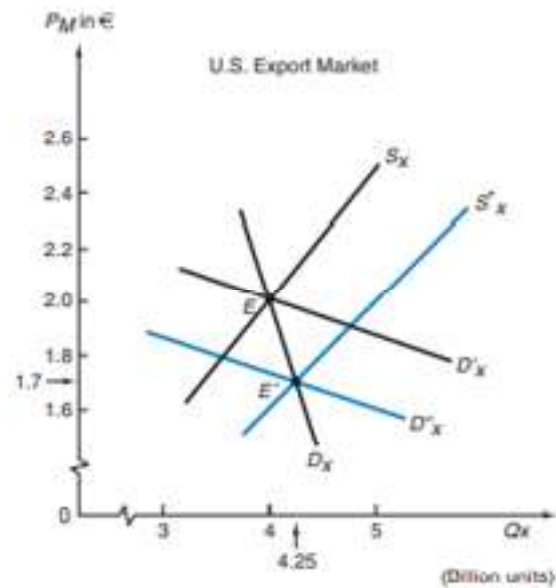
Fig. 4 The Identification Problem

b. The J-Curve Effect and Revised Elasticity Estimates

Not only are short-run elasticities in international trade likely to be much smaller than long-run elasticities, but a nation's trade balance may actually worsen soon after a devaluation or depreciation, before improving later on. This is due to the tendency of the domestic-currency price of imports to rise faster than export prices soon after the devaluation or depreciation, with quantities initially not changing very much. Over time, the quantity of exports rises and the quantity of imports falls, and export prices catch up with import prices, so that the initial deterioration in the nation's trade balance is halted and then reversed. Economists have called this tendency of a nation's trade balance to first deteriorate before improving as a result of a devaluation or depreciation in the nation's currency the J-curve effect. The reason is that when the nation's net trade balance is plotted on the vertical axis and time is plotted on the horizontal axis, the response of the trade balance to a devaluation or depreciation looks like the curve of a J (see Figure 5). The figure assumes that the original trade balance was zero.

Empirical studies by Harberger (1957), Houthakker and Magee (1969), Stern, Francis, and Schumacher (1976), Spitaeller (1980), Artus and Knight (1984) (summarized and reviewed by Goldstein and Khan, 1985), Marquez (1990), and Hooper, Johnson, and Marquez (1998) attempted to overcome some of the estimation problems raised by Orcutt. These studies generally confirmed the existence of a J-curve effect but also came up with long-run elasticities about twice as high as those found in the empirical studies of the 1940s. The upshot of all of this is that real-world elasticities are likely to be high enough to ensure stability of the foreign exchange market in the short run and also to result in fairly elastic demand and supply schedules for foreign exchange in the long run. In the very short run.

Fig. 5 : The J-Run

c. Currency Pass-Through
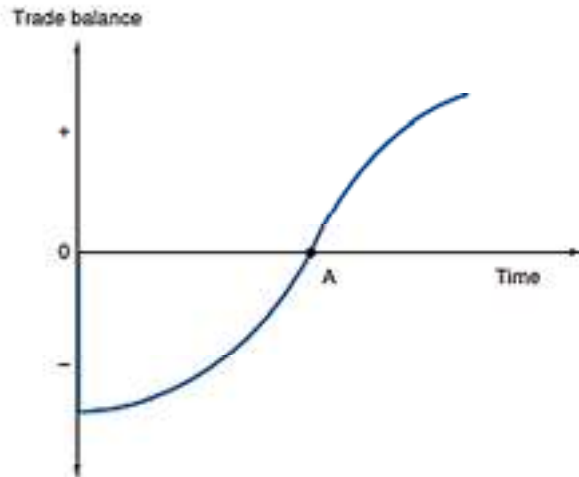
Not only are there usually lags in the response of a nation's trade and current account balances to a depreciation of its currency (and there may even be a perverse response for a while—the J-curve effect), but also the increase in the domestic price of the imported commodity may be smaller than the amount of the depreciation—even after lags. That is, the pass-through from depreciation to domestic prices may be less than complete. For example, a 10 percent depreciation in the nation's currency may result in a less than 10 percent increase in the domestic-currency price of the imported commodity in the nation. The reason is that foreign firms, having struggled to successfully establish and increase their market share in the nation, may be very reluctant to risk losing it by a large increase in the price of its exports and are usually willing to absorb at least some of the price increase that they could charge out of their profits. Specifically, a foreign firm may only increase the price of its export commodity by 4 percent and accept a 6 percent reduction in its profits when the other nation's currency depreciates (and its currency appreciates) by 10 percent for fear of losing market share. That is, the pass-through is less than 1. The pass-through is higher in the long run than the short run and higher for industrial goods than for other goods.

In the United States, the pass-through of a dollar depreciation has been estimated to be only about 42 percent in the long run. This means that the dollar price of U.S. imports tends to increase only by about 42 percent of a dollar depreciation after one year, with the remaining 58 percent being absorbed out of exporters' profits. There is also mounting empirical evidence that the "pass-though" from exchange rate changes to prices (i.e., firm's pricing power) declined during the low-inflationary environment of the past two decades and it is lower for trade in primary commodities than for trade in manufactured products and in trade with China.

Exporters may also be reluctant to increase prices by the full amount of the dollar depreciation if they are not convinced that the depreciation of the dollar will persist and not be reversed in the near future. Since it is very costly to plan and build or dismantle production facilities and enter or leave new markets, they do not want to risk losing their market by a large increase in the price of their exports. This has been referred to as the beachhead effect. This effect was clearly evident during the sharp depreciation of the dollar from 1985 to 1988 when Japanese automakers avoided increasing the dollar price of their automobile exports to the United States for as long as possible in order to hold on to their share of the U.S. market and then reluctantly increased prices only by a small amount. In the process, their profit margins fell sharply, and they even incurred losses—prompting accusations of dumping on the part of the American competitors. At the same time, U.S. automakers chose to increase prices in order to rebuild their profit margins instead of holding the line on prices and recapturing market share from the Japanese.

Summary

In this Chapter, we examined the traditional trade or elasticity approach to exchange rate determination. This assumes that there are no autonomous international private financial flows (i.e., international private capital flows take place only as passive responses to cover or pay for temporary trade imbalances) and shows how a current account (and balance-of-payments) deficit can be corrected automatically by a depreciation of the nation's currency under flexible exchange rates or by (the policy of) devaluing the nation's currency with fixed exchange rates. The opposite would be the case for a current account (and balance-of-payments) surplus. A nation can usually correct a deficit in its balance of payments by devaluing its currency or allowing it to depreciate. The more elastic are the demand and supply curves of foreign exchange, the smaller is the devaluation or depreciation required to correct a deficit of a given size. The nation's demand for foreign exchange is derived from the demand for and supply of its imports in terms of the foreign currency. The more elastic is the latter, the more elastic is the former.

Keywords

1. Flexible Exchange Rates: Exchange rate depends upon demand for and supply of currency.
2. Terms of Trade: Depends upon export and import of a nation.
3. J-Curve: the trade balance usually gets better before it gets worse after a currency appreciation
4. Exchange rate system: It will be determined either fixed, flexible or by managed exchange rate of different economies.
5. Equilibrium exchange rate is determined when the demand curve for foreign currency intersects with supply curve

Self Assessment

1. Under flexible exchange rate system, exchange rate is determined by the:

A. Demand for exchange
B. Supply of foreign exchange
C. Supply and demand forces
D. Government

2. Under Exchange rate system, there is no interference of monetary authorities to decide exchange rate.

A. fixed
B. floating
C. mixed
D. pegged

3. Under Exchange rate system, value of currency is decided by the market forces of demand and supply.

A. fixed
B. floating
C. mixed
D. pegged

4. The J-curve effect refers to the observation that ?

A. GDP usually decreases before it increases after a currency depreciation
B. the trade balance usually gets worse before it improves after a currency depreciation
C. the trade balance usually gets better before it gets worse after a currency appreciation
D. GDP usually decreases before it increases after a currency appreciation

5. Under fixed exchange rate system , the currency rate in the market is maintained through

A. Rationing of foreign exchange
B. Official intervention
C. Centralizing all foreign exchange operations
D. None of the above

6. The statutory basis for administration of foreign exchange in India is?

A. Foreign Exchange Regulation Act, 1973
B. Foreign Exchange Management Act , 1999
C. Exchange control Manual
D. Conservation of Foreign Exchange & prevention of Smuggling Act.

7. Flexible exchange creates in importers and exporters.

A. uncertainty,
B. confidence,
C. safety,
D. none of the above

8……………………………..is not a defect of flexible exchange rate.

A. Stability in international monetary system,
B. speculation,
C. structural unemployment,
D. discourages investments.

9. Under exchange rate system, the exchange rate is determined by market forces.

A. flexible,
B. fixed,
C. managed float,
D. all of the above

10. Under exchange rate system, the central bank of a nation intervenes in exchange rate determination.

A. managed float,
B. fixed,
C. flexible,
D. none of the above

11. The demand curve for foreign exchange slopes indicating that when the exchange rate of foreign currency falls, the demand for it increases.

A. downwards,

B. upwards,

C. sideways,

D. none of the above

12. The supply curve for foreign currency slopes indicating that when the exchange rate of foreign currency increases, the supply of it increases.

A. upwards,

B. downwards,

C. sideways,

D. all of the above

13. Equilibrium exchange rate is determined when …………..

A. the demand curve for foreign currency intersects with supply curve,

B. demand curve shifts upwards,

C. supply curves slopes downwards,

D. none of the above

14. Exchange rate between two currencies is based on ……………..

A. purchasing power of two currencies,

B. economic development of the two nations,

C. political stability in the two countries,

D. none of the above

15. Fixed exchange rate system, the exchange rate was ………….

A. stable,

B. unstable,

C. fluctuating,

D. all of the above

Answers for Self Assessment

1.	C	2.	B	3.	B	4.	B	5.	B
6.	B	7.	A	8.	A	9.	A	10.	A
11.	A	12.	A	13.	A	14.	A	15.	A

Review Questions

1. How is the nation's demand curve for foreign exchange derived? What determines its elasticity?

2. How is the nation's supply curve of foreign exchange derived? What determines its elasticity?

3. What shape of the demand and supply curves of foreign exchange will make the foreign exchange market stable? unstable?

4. From the negatively sloped demand curve and the positively sloped supply curve of a nation's tradeable commodity (i.e., a commodity that is produced at home but is also imported or exported), derive the nation's demand curve of imports of the tradeable commodity for below-equilibrium prices.

5. What is the J-curve effect?

Further Readings

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- D. Rodrik. Has Globalization Gone Too Far? (Washington, D.C.: Institute for International Economics, 1997).
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Web Links

http://www.federalreserve.gov

http://www.gpoaccess.gov/eop/2011/pdf/ERP-2011.pdf

http://en.wikipedia.org/wiki/Gravity_model_of_trade

Unit 12: Balance of Payment

Objectives

After studying this unit, you will be able to,

- understand Balance of payments and its components
- understand the reasons for disequilibrium in Balance of payments
- understand measures to correct disequilibrium in balance of payment.

Introduction

The BOP is a statistical account of the transactions between residents of one country and residents of the rest of the world for a period of one year or fraction thereof. It is a systematized procedure for measuring, summarizing and stating the effects of all financial and economic transactions. The BOP statistics reflect all the economic transactions of a country vis-à-vis rest of the world for which payment may or may not be involved. These transactions may include exchange of goods and services or there may be loan transactions, gifts and grants, or short-term, long-term and portfolio investments. For all these transactions, except gifts and grants, payment is involved in foreign currency. A transaction is recorded as being either a credit or a debit depending on the direction of the payment. If the transaction results in a cash outflow, it is recorded as a debit. Likewise, if the transaction results in a cash inflow it is recorded as a credit.

12.1 Meaning of Multiplier

In the modern world, there is hardly any country which is self-sufficient in the sense that it produces all the goods and services it needs. Every country import from other countries the goods that cannot be produced at all in the country or can be produced only at an unduly high cost as compared to the foreign supplies. Similarly, a country exports to other countries the commodities which those countries prefer to buy from abroad rather than produce at home.

"The balance of payments is a systematic record of economic transactions of the residents of a country with the rest of the world during a given period of time." The record is so prepared as to provide meaning and measure to the various components of a country's external economic transactions. Thus, the aim is to present an account of all receipts and payments on account of goods exported, services rendered and capital received by residents of a country, and goods imported, services received and capital transferred by residents of the country. The main purpose of keeping these records is to know the international economic position of the country and to help the Government in reaching decisions on monetary and fiscal policies on the one hand, and trade and payments questions on the other.

12.2 Balance of Trade and Balance of Payments

Balance of trade and balance of payments are two related terms but they should be carefully distinguished from each other because they do not have exactly the same meaning. Balance of trade

refers to the difference in value of imports and exports of commodities only, i.e., visible items only. Movement of goods between countries is known as visible trade because the movement is open and can be verified by the customs officials. During a given period of time, the exports and imports may be exactly equal, in which case, the balance of payments of trade is said to be balanced. But this is not necessary, for those who export and import are not necessarily the same persons. If the value of exports exceeds the value of imports, the country is said to experience an export surplus or a favorable balance of trade. If the value of its imports exceeds the value of its exports, the country is said to have a deficit or an adverse balance of trade.

The terms "favorable" and "unfavorable" are derived from the mercantilist writers of the 18th century. In those days, settlements of the foreign transactions were made in gold. If India had exported 100 crores worth of goods but had imported `80 crores worth of goods, India would receive 20 crores worth of gold from the foreign countries. As gold was regarded as wealth and as the receipts of gold made a country wealthy, the mercantilist writers regarded exports surplus as being favorable to the country.

On the other hand, if India had exported 100 crores worth of goods, but imported ` 150 crores worth of goods, it had to pay 50 crores in gold to the foreigners. India would be losing gold and would be poorer to that extent. Therefore, an import surplus was regarded by the mercantilist writers as adverse balance. But in these days, the international transactions are not settled in terms of gold. Even then, the terms "favorable" and "unfavorable" balance of trades have continued to be used till today. Exports and imports of a country are rarely equal. Balance of trade, in other words, will not balance. During any period, a country may experience a favorable or an adverse balance of trade.

12.3 Distinction between Current Account and Capital Account

The distinction between the current account and capital account may be noted. The current account deals with payment for currently produced goods and services; it includes also interest earned or paid on claims and also gifts and donations. The capital account, on the other hand, deals with payments of debts and claims. The current account of the balance of payments affects the level of national income directly. For instance, when India sells its currently produced goods and services to foreign countries, the producers of those goods get income. In other words, current account receipts have the effect of increasing the flow of income in the country. On the other hand, when India imports goods and services from foreign countries and pays for them, money which would have been used to demand goods and services within the country flows out to foreign countries. The current account payments to foreigners involve reduction of the flow of income within the country and constitute a leakage. Thus, the current account or trade account of the balance of payments has a direct effect on the level of income in a country. The capital account, however, does

not have such a direct effect on the level of income; it influences the volume of assets which a country holds.

It may be further noted that when there is a deficit in the current account, it has to be financed either by using foreign exchange reserves with Reserve Bank of India, if any, or by capital inflows (in the form of foreign assistance, funds flowing through FDI and portfolio investment by FIIs, commercial borrowing from abroad, non-resident deposits.

12.4 Determinants of Balance of Payments

There are several variables which determine the balance of payments position of a country, viz., national income at home and abroad, exchange rate of national currency, the prices of goods and factors, international oil and commodity prices, the supply of money, the rate of interest, etc. all of which determine exports, imports, and demand and supply of foreign currency. At the back of these variables lie the supply factors, production function, the state of technology, tastes, distribution of income, economic conditions, the state of expectations, etc. If there is a change in any of these variables and there are no appropriate changes in other variables, disequilibrium will be the result.

The main cause of disequilibrium in the balance of payments arises from imbalance between exports and imports of goods and services, that is, deficit or surplus in balance of trade. When for one reason or another exports of goods and services of a country are smaller than their imports, disequilibrium in the balance of payments is the likely result. Exports may be small due to the lack of exportable surplus which in turn results from low production or the exports may be small because of the high costs and prices of exportable goods and severe competition in the world markets. Important causes of small exports are the inflation or rising prices in the country or over-valued exchange rate. When the prices of goods are high in the country, its exports are discouraged and imports encouraged. If it is not matched by other items in the balance of payments, disequilibrium emerges.

12.5 Balance of Payments on Current Account

Current account refers to an account which records all the transactions relating to export and import of goods and services and unilateral transfers during a given period of time. Current account contains the receipts and payments relating to all the transactions of visible items, invisible items and unilateral transfers.

Components of Current Account:

The main components of Current Account are:
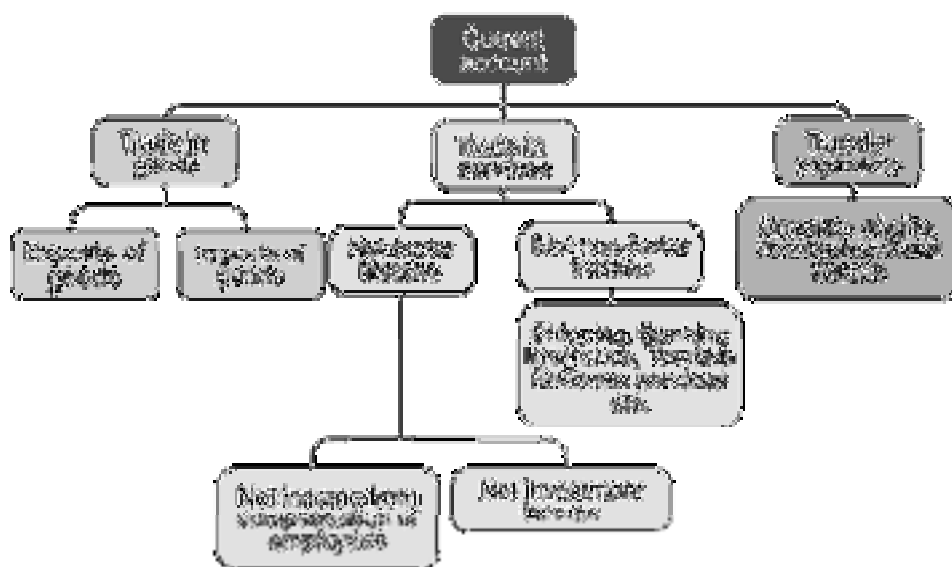
1. Export and Import of Goods (Merchandise Transactions or Visible Trade): A major part of transactions in foreign trade is in the form of export and import of goods (visible items). Payment for import of goods is written on the negative side (debit items) and receipt from exports is shown on the positive side (credit items). Balance of these visible exports and imports is known as balance of trade (or trade balance).

2. Export and Import of Services (Invisible Trade): It includes a large variety of non- factor services (known as invisible items) sold and purchased by the residents of a country, to and from the rest of the world. Payments are either received or made to the other countries for use of these services.

a. Shipping.

b. Banking.

c. Insurance.

Payments for these services are recorded on the negative side and receipts on the positive side.

3. Unilateral or Unrequited Transfers to and from abroad (One sided Transactions):

Unilateral transfers include gifts, donations, personal remittances and other 'one-way' transactions. These refer to those receipts and payments, which take place without any service in return. Receipt of unilateral transfers from rest of the world is shown on the credit side and unilateral transfers to rest of the world on the debit side. Income receipts and payments to and from abroad: It includes investment income in the form of interest, rent and profits.

Current Account records all the actual transactions of goods and services which affect the income, output and employment of a country. So, it shows the net income generated in the foreign sector. Unilateral transfers include gifts, donations, personal remittances and other 'one-way' transactions. These refer to those receipts and payments, which take place without any service in return. Receipt of unilateral transfers from rest of the world is shown on the credit side and unilateral transfers to rest of the world on the debit side.

4. Income receipts and payments to and from abroad: It includes investment income in the form of interest, rent and profits.

Current Account records all the actual transactions of goods and services which affect the income, output and employment of a country. So, it shows the net income generated in the foreign sector. In the current account, receipts from export of goods, services and unilateral receipts are entered as credit or positive items and payments for import of goods, services and unilateral payments are entered as debit or negative items. The net value of credit and debit balances is the balance on current account.

1. Surplus in current account arises when credit items are more than debit items. It indicates net inflow of foreign exchange.

2. Deficit in current account arises when debit items are more than credit items. It indicates net outflow of foreign exchange.

S. No.	Items	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
1.	Exports	105.1	128.9	166.2	189.0	182.2	256.2	309.8	305.6
2.	Imports	157.1	190.7	257.6	307.6	300.6	383.5	499.5	502.2
3.	**Trade Balance**	−52.0	−61.8	−91.5	−118.6	−118.4	−127.3	−189.9	−195.7
		(−6.2)	(−6.5)	(−7.4)	(−9.8)	(−8.6)	(−7.8)	(−10.1)	(−10.0)
4.	Invisibles (Net)	42.0	52.2	75.7	89.9	79.9	79.3	111.6	−
	(i) Non-factor Services	23.2	29.5	38.9	49.6	35.7	44.1	64.1	−
	(ii) Investment Income	−5.9	−7.2	−5.1	−4.0	−8.0	−17.9	−16.0	−
	(iii) Private Transfers	24.5	29.8	41.7	44.6	52.3	53.1	63.5	−
5.	**Goods and Services Balance**	−28.7	−32.3	−52.6	−69.0	−83.0	−83.2	−125.7	−130.7
6.	**Current Account Balance (Net)**	−10.0	−9.6	−15.7	−28.7	−38.4	−48.1	−78.2	−87.8
		(−1.2)	(−1.0)	(−1.3)	(−2.4)	(−2.8)	(−2.7)	(−4.2)	(−4.8)

It will be noted from Table 1 above that the most important item in the balance of payments on current account is balance of trade which refers to imports and exports of goods. In the Table 34.1 balance of trade does not balance and shows a deficit in all the seven years. In years 2011-12 and 2012-13 trade deficit substantially increased. Trade deficit was over 10 per cent of GDP in both these years. In fact, it is huge trade deficit in these two years that caused huge current account deficit of over 4% of GDP in these two years Economic slowdown in advanced countries and its spillover effects in Emerging Market Economies coupled with high crude oil and gold prices were responsible for sharp increase in trade deficit. Due to surplus in invisibles account, there was a surplus on current account during 2001-2002, 2002-03 and 2003-04. In India's balance of payments on current account from 2004-05 onwards there has been a deficit. Contrary to popular perception, deficit on current account is not always bad provided it is within reasonable limits and can be easily met by non-debt capital receipts. In fact, deficit on current account represents the extent of absorption of capital inflows in India during a year It may be noted that when there is deficit on the current account, it is financed either by using foreign exchange reserves held by Reserve Bank of India or by capital flows that come into the country in the form of foreign direct investment (FDI) and portfolio investment by FIIs, external commercial borrowing (ECB) from abraod and by NRI deposits in foreign exchange account in our banks. However, due to global financial crisis in 2008-09, there was first slowdown and then decrease in exports. As a result, there was a large deficit of 2.4 per cent of GDP on current account which could not be met by capital inflows as they were quite meagre ($ 8.6 billion) as a result of global financial crisis. Therefore, to finance the deficit on current account in 2008-09 we had to withdraw US $ 20 billion from our foreign exchange reserves. Again, in the last two years 2011-12 and 2012-13 the current account deficit (CAD) has been quite high. It may be noted that high current deficit tends to weaken the rupee by raising the demand for US dollars. In 2011-12, current account deficit tended to weaken the rupee by raising the demand for US dollars. In 2011-12, the current account deficit was 4.2 per cent of GDP. Since capital inflows in this year were not adequate to finance the current account deficit, RBI had to withdraw 12.8 million US dollars from its foreign exchange reserves to meet the demand for US dollars (see Table 34.2). In the year 2012-13 the current account deficit has been estimated to be even higher at 4.8 per cent of GDP, capital inflows through portfolio investment by FIIs have picked up in the latter half of 2012-13 but capital inflows through FDI have fallen. Therefore, to meet the current account deficit some US dollars will have to be withdrawn from foreign exchange reserves held by RBI. Thus, current account deficit poses serious challenge to macroeconomic management of the economy. The dependence on volatile capital inflows through FIIs to meet the current account deficit is unsustainable as these capital flows go back when global situation worsens and thereby causes sharp depreciation in exchange rate of rupee and crash in stock market prices.

Since in the recent years, 2011-12 and 2012-13, current account deficit of India widened, this increased the balance of payments vulnerability to sudden reversal of capital flows, especially when sizable flows are comprised of debt and volatile portfolio investment by FIIs. The priority has therefore been to reduce current account deficit (CAD) through improving trade balance. Efforts have been made to promote exports by diversifying the export commodity basket and export destinations. One way to limit imports is to bring prices up to the international level so that users bear the full cost.

Accordingly, petrol has been decontrolled and diesel prices have been revised upward in Jan. 2013 to curtail subsidy on it. To discourage the imports of gold which has played a significant role in causing trade deficit, customs duty on its import has been raised from 4% to 6%. Further, to improve the current account deficit emphasis has been on facilitating remittances and encouraging software exports that have been responsible for surplus on the invisible account. In recent years this surplus has lowered the impact of widening trade deficit on current account deficit (CAD) significantly. The two components together met nearly two-thirds of the trade deficit that was more than 10 per cent of GDP in 2011-12 and 2012-13. Remittances particularly are known to exhibit resistance when the country is hit by external shock as was evident during the global crisis of 2008.

12.6 Balance of Payments on Capital Account

Capital account of BOP records all those transactions, between the residents of a country and the rest of the world, which cause a change in the assets or liabilities of the residents of the country or its government. It is related to claims and liabilities of financial nature.

Capital Account is used to:

(i) Finance deficit in current account; or

(ii) Absorb surplus of current account.

Capital account is concerned with financial transfers. So, it does not have direct effect on income, output and employment of the country.

Components of Capital Account:

The main components of capital account are:
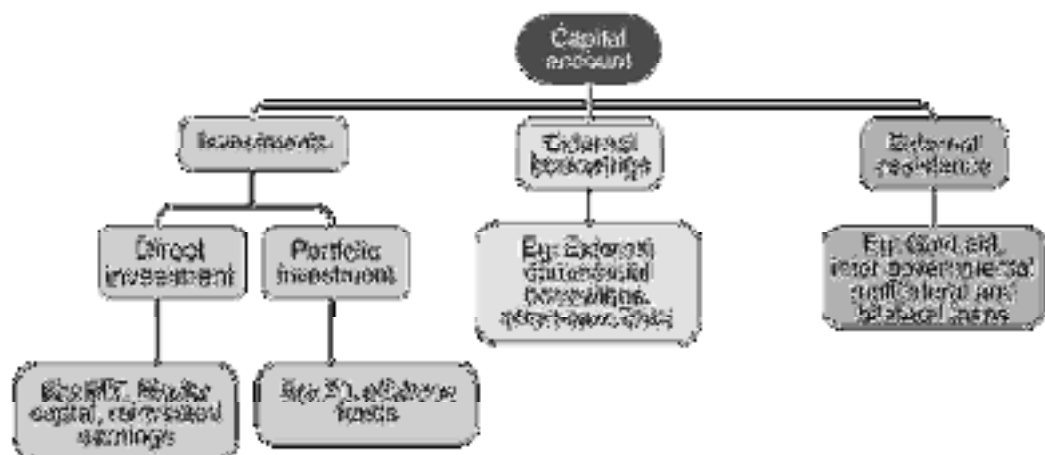
1. **Borrowings and landings to and from abroad:**

It includes:

A. All transactions relating to borrowings from abroad by private sector, government, etc. Receipts of such loans and repayment of loans by foreigners are recorded on the positive (credit) side.

B. All transactions of lending to abroad by private sector and government. Lending abroad and repayment of loans to abroad is recorded as negative or debit item.

2. Investments to and from abroad:

It includes:

A. Investments by rest of the world in shares of Indian companies, real estate in India, etc. Such investments from abroad are recorded on the positive (credit) side as they bring in foreign exchange

B. Investments by Indian residents in shares of foreign companies, real estate abroad, etc. Such investments to abroad be recorded on the negative (debit) side as they lead to outflow of foreign exchange.

3. Change in Foreign Exchange Reserves:

The foreign exchange reserves are the financial assets of the government held in the central bank. A change in reserves serves as the financing item in India's BOP. So, any withdrawal from the reserves is recorded on the positive (credit) side and any addition to these reserves is recorded on the negative (debit) side. It must be noted that 'change in reserves' is recorded in the BOP account and not reserves.

12.7 Balance on Capital Account

The transactions, which lead to inflow of foreign exchange (like receipt of loan from abroad, sale of assets or shares in foreign countries, etc.), are recorded on the credit or positive side of capital account. Similarly, transactions, which lead to outflow of foreign exchange (like repayment of loans, purchase of assets or shares in foreign countries, etc.), are recorded on the debit or negative side. The net value of credit and debit balances is the balance on capital account.

A. Surplus in capital account arises when credit items are more than debit items. It indicates net inflow of capital.

B. Deficit in capital account arises when debit items are more than credit items. It indicates net outflow of capital.

In addition to current account and capital account, there is one more element in BOP, known as 'Errors and Omissions'. It is the balancing item, which reflects the inability to record all international transactions accurately.

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
External Assistance (Net)	1.7	1.8	2.1	2.6	2.9	4.94	2.3
Commercial Borrowing (Net)	2.5	16.1	22.6	7.0	2.8	12.16	10.3
Non-Resident Deposits (Net)	2.8	4.3	0.2	−4.3	2.9	3.14	11.9
Foreign Investment (Net) of which	15.5	14.8	43.3	3.5	50.4	42.13	39.2
(i) FDI net	3.0	7.7	15.9	17.5	18.0	11.83	22.1
(ii) Portfolio Investment (Net)	12.5	7.1	27.4	−15.0	32.4	30.3	17.2
(iii) Other capital flows (Net)	2.4	9.2	39.7	−9.7	−13.1	−10.48	−7.0
Capital Account Total (Net)	**24.9**	**46.1**	**107.9**	**8.6**	**51.6**	**63.74**	**67.8**
Use of Exchange Reserves*	−15.0	−36.6	−92.2	+20.1*	−13.4*	(−13.1)*	(+12.8)*

Capital inflows in the capital account can be classified into debt creating and non-debt creating. Foreign investment (both direct and portfolio) represents non-debt creating capital inflows, whereas external assistance (i.e. concessional loans taken from abroad), external commercial borrowing (ECB) and non-resident deposits are debt-creating capital inflows. It will be seen from Table 34.2 that during 2007-08, there was net capital inflow of 43.3 billion US dollars on account of foreign investment (both direct and portfolio). Table 2 gives the position of India's balance of payments in capital account for seven years, 2005-06, 2006-07, 2007-08, 2008- 09 and 2009-10, 2010-11 and 2011-12. When all items of balance of payments on capital account are taken into account, we had a surplus of 107.9 billion US dollars in 2007-08. Taking into current account deficit of $ 15.7 billion in year 2007-08 there was accretion to our foreign exchange reserves by $ 92.2 billion in 2007-08. Global financial crisis affected our capital account balance as there was reversal of capital flows after Sept. 2008 with the result that we used $ 20.1 billion of our foreign exchange reserves in 2008-09 resulting in decrease of our foreign exchange reserves. That is, because we used our foreign

exchange reserves equal to $ 20.1 billion, there was decline in our foreign exchange reserves by $ 20 billion in 2008-09. The situation improved in 2009-10 as foreign direct investment (FDI) and portfolio investment by FIIs picked up. As a result, there was net capital account surplus of $ 51.6 billion in 2009-10 and after meeting the current account deficit of $ 38 billion there was addition to our foreign exchange reserves by $ 13.4 billion in 2009-10. In 2010-11 also there was surplus on capital account of $ 63.74 billion and after meeting current deficit we added $ 13.1 billion in our foreign exchange reserves in 2010.11. However, in 2011-2012 and 2012-13 the situation regarding capital flows changed significantly and capital flows were not sufficient to meet the large current account deficit (CAD). Consequently, in 2011-12 withdrawal from foreign exchange reserves of 12.8 billion US dollars was made. In 2012- 13 also due to large deficit on current account the withdrawal from our foreign exchange reserves was made. Capital flows are driven by pull factors such as economic fundamentals of recipient countries and push factors such as policy stance of source countries. The capital flows have implications for exchange rate management, overall macroeconomic and financial stability including liquidity conditions. Capital account management therefore needs to emphasize promoting foreign direct investment (FDI) and reducing dependence on volatile portfolio capital. This would ensure that to the extent current account deficit is bridged through capital surplus it would be better if it is done through stable and growth enhancing foreign direct investment flows. In the present international financial situation, reserves are the first line of defense against the volatile capital flows. However, the decline in reserves as a percentage of GDP is a source of concern.

12.8 The Official Reserve Account (ORA)

The ORA measures changes in the holdings of foreign currency, SDRs and gold by the central bank of a nation. It takes into account the surplus or deficit resulting from the current account and capital account transactions.

⚠ Caution

In the accounting format, balances on individual accounts can be worked out as

follows:

(a) Trade balance (merchandise A/c) = Merchandise exports - merchandise imports (X - M).

(b) Current account (includes earnings and expenditure for services and "invisible" trade items).

= Balance on goods, services and income + Unrequired transfers (determined autonomously

because of pricing, quality of similar factors).

(c) Basic balance = Current A/c + long-term capital flows including FDI (autonomous).

(d) Overall balance/Official settlement balance

= Basic balance + Short-term capital movements + Errors and omissions.

The transactions in the current account, capital account and statistical discrepancies are treated as

autonomous in BOP accounting format whereas, entries in the official settlement account are

treated as compensatory items.

12.9 The Total Balance of Payments Notes

The BOP is just the sum of these three accounts and is calculated as follows: BOP = Current Account Balance + Capital Account Balance + Change in Official

Reserves Account

BOP = BCRA + CPA + ORA

The BOP must always equal 0, i.e., balance since it is an accounting identity in a fixed exchange rate system. If for some reason, the CRA and CPA do not sum to 0, then the government must take

action by adjusting the ORA so that BOP equals 0. The government does this by buying or selling foreign currency and gold, depending on the situation, up to a total that equals the CRA and CPA.

Causes of Disequilibrium:

1. ***Temporary Changes (or Disequilibrium):*** There may be a temporary disequilibrium caused by random variations in trade, seasonal fluctuations, the effects of weather on agricultural production, etc. Deficits or surpluses arising from such temporary causes are expected to correct themselves within a short time.

2. ***Fundamental Disequilibrium:*** Fundamental disequilibrium refers to a persistent and long-run BOP disequilibrium of a country. It is a chronic BOP deficit, according to IMF. It is caused by such dynamic factors as:

(1) Changes in consumer tastes within the country or abroad which reduce the country's exports and increase its imports.

(2) Continuous fall in the country's foreign exchange reserves due to supply in-elasticities of exports and excessive demand for foreign goods and services.

(3) Excessive capital outflows due to massive imports of capital goods, raw materials, essential consumer goods, technology and external indebtedness.

(4) Low competitive strength in world markets which adversely affects exports.

(5) Inflationary pressures within the economy which make exports dearer.

3. ***Structural Changes (or Disequilibrium):*** Structural changes bring about disequilibrium in BOP over the long run.

They may result from the following factors:

(a) Technological changes in methods of production of products in domestic industries or in the industries of other countries. They lead to changes in costs, prices and quality of products.

(b) Import restrictions of all kinds bring about disequilibrium in BOP.

(c) Deficit in BOP also arises when a country suffers from deficiency of resources which it is required to import from other countries.

(d) Disequilibrium in BOP may also be caused by changes in the supply or direction of long-term capital flows. More and regular flow of long-term capital may lead to BOP surplus, while an irregular and short supply of capital brings BOP deficit.

4. ***Changes in Exchange Rates:*** Changes in foreign exchange rate in the form of overvaluation or undervaluation of foreign currency lead to BOP disequilibrium. When the value of currency is higher in relation to other currencies, it is said to be overvalued. Opposite is the case of an undervalued currency. Overvaluation of the domestic currency makes foreign goods cheaper and exports dearer in foreign countries. As a result, the country imports more and exports less of goods. There is also outflow of capital. This leads to unfavorable BOP. On the contrary, undervaluation of the currency makes BOP favorable for the country by encouraging exports and inflow of capital and reducing imports.

5. ***Cyclical Fluctuations (or Disequilibrium):*** Cyclical fluctuations in business activity also lead to BOP disequilibrium. When there is depression in a country, volumes of both exports and imports fall drastically in relation to other countries. But the fall in exports may be more than that of imports due to decline in domestic production. Therefore, there is an adverse BOP situation. On the other hand, when there is boom in a country in relation to other countries, both exports and imports may increase. But there can be either a surplus or deficit in BOP situation depending upon whether the country exports more than imports or imports more than exports. In both the cases, there will be disequilibrium in BOP.

6. ***Changes in National Income:*** Another cause is the change in the country's national income. If the national income of a country increases, it will lead to an increase in imports thereby creating a deficit in its balance of payments, other things remaining the same. If the country is already at full

employment level, an increase in income will lead to inflationary rise in prices which may increase its imports and thus bring disequilibrium in the balance of payments.

7. Price Changes: Inflation or deflation is another cause of disequilibrium in the balance of payments. If there is inflation in the country, prices of exports increase. As a result, exports fall. At the same time, the demand for imports increase. Thus, increase in export prices leading to decline in exports and rise in imports results in adverse balance of payments.

8. Stage of Economic Development: A country's balance of payments also depends on its stage of economic development. If a country is developing it will have a deficit in its balance of payments because it imports raw materials, machinery, capital equipment, and services associated with the development process and exports primary products. The country has to pay more for costly imports and gets less for its cheap exports. This leads to disequilibrium in its balance of payments.

9. Capital Movements: Borrowings and lending's or movements of capital by countries also result in disequilibrium in BOP. A country which gives loans and grants on a large scale to other countries has a deficit in its BOP on capital account. If it is also importing more, as is the case with the USA, it will have chronic deficit. On the other hand, a developing country borrowing large funds from other countries and international institutions may have a favorable BOP. But such a possibility is remote because these countries usually import huge quantity of food, raw materials, capital goods, etc. and export primary products. Such borrowings simply help in reducing BOP deficit.

10. Political Conditions: Political condition of a country is another cause of disequilibrium in BOP. Political instability in a country creates uncertainty among foreign investors which leads to the outflow of capital and retards its inflow. This causes disequilibrium in BOP of the country. Disequilibrium in BOP also occurs in the event of war or fear of war with some other country.

Implications of Disequilibrium:

A disequilibrium in the balance of payments whether a deficit or surplus has important implications for a country. A deficit in the combined current and capital accounts is regarded as undesirable for the country. This is because such a deficit has to be covered by borrowing from abroad or attracting foreign exchange or capital from abroad. This may require paying high interest rates. There is also the danger of withdrawing money by foreigners, as happened in the case of the Asian crisis in the late 1990s. An alternative may be to draw on the reserves of the country which may also lead to a financial crisis. Moreover, the reserves of a country being limited, they can be used to pay for BOP deficit up to a limit. But the above analysis of a combined current and capital account deficit is not correct in practice.

The reason being that a current account deficit is the same thing as a capital account surplus. However, it is beneficial for a country to have a current account deficit even if it equals capital account surplus in BOP. In the short-run, the country may benefit from a higher level of consumption through import of goods and consequently a higher standard of living. But the excess of imports over exports may be financed by foreign investments in the country. These may lead to increased production, employment and income in the country. In the long-run, foreign investors may purchase large assets in the country and thus adversely affect domestic industry as is the case with MNCs (multinational corporations).

The current account deficit in BOP of a country may have either good or bad effects depending on the nature of an economy. Take a country where domestic industries are rapidly growing and it has current account BOP deficit. These industries offer a high rate of return on their investment. This would, in return, attract foreign investments. As a result, the country would have a capital account surplus due to the inflow of capital and a current account deficit. This current account deficit is good for the economy. No doubt, the external debt of the country increases, but this debt is being utilized to finance the rapid growth of the economy. The real burden of this debt will be very low because it can be repaid out of higher income in the future.

On the contrary, a country having an inefficient and unproductive domestic industry will be adversely affected by its current account BOP deficit. The country borrows from abroad to finance the excess of spending over consumption. To attract foreign borrowings, the country will have to pay high interest rates. These will increase the money burden of the debt. The real burden of the debt will also increase because of the low productive capacity of domestic industries. If the current consumption is being financed by foreign borrowings, the wealth of the economy will decline. This,

in turn, will lead to either a reduction in domestic expenditure or a change in government policy so as to control the rising debt. On the other hand, if foreign borrowings are being used to finance real investment, the current account BOP deficit will be beneficial for the economy. A higher rate of return on real investment than the interest on foreign borrowings would increase the country's wealth over time through rise in its national income. Thus, a current account BOP deficit is not always undesirable for a country.

12.10 Correction of Disequilibrium (Adverse Balance of Payments)

The following are the principal methods for adjusting the adverse balance of payments:

1. Adjustment under Gold Standard: In the classical gold standard system, disequilibrium

was corrected by price-specific flow mechanism. A deficit leads to outflow of gold and

thereby to a reduction in money supply which reduces the price level and promotes

exports and discourages imports. So, deficit is corrected.

2. Adjustment under Flexible Exchange Rate: Deficit is corrected automatically by a

depreciation of its currency.

3. Income Adjustment Mechanism: If exports go up, national income goes up, purchasing

power goes up and imports also go up.

4. *Adjustment under Gold Exchange Standard (Fixed Exchange Rate):* The gold exchange

standard was set up after World War II and lasted until 1971. Under this, the exchange rate was fixed in terms of dollar or gold. The exchange rates were then allowed to vary 1 percent up or down. The deficit could be settled in gold or in dollar. Automatic adjustment is possible under this system.

Example: If exports increase, income increases. Therefore, prices in the surplus country go up. This discourages exports and encourages imports.

The surplus nation's exchange rate may appreciate and it can get an inflow of reserves leading to greater money supply and lowering of rate of interest. All these may lead to increased imports, capital outflow and reduced exports. If permitted to operate, the above automatic adjustment mechanisms are likely to bring about adjustment in BOP. But nations may not permit them to operate for fear of unemployment and inflation. Therefore, some policies are necessary to complete the adjustment.

5. Expenditure Changing Policy: Expenditure adjusting policies are monetary and fiscal tools. A restrictive monetary policy leads to a reduction in investment and income, thus reducing imports. Therefore, a restrictive monetary policy by reducing expenditure corrects an external deficit.

However, under the policy of Operation Twist, short-term rate of interest is raised to attract short-term capital from abroad which will cure the balance of payment deficit and at the same time does not disturb economic growth and capital formation (long-term rate is kept constant).

Fiscal policy may be very helpful for reducing expenditure. Taxes may be raised and public expenditure may be reduced. Both, restrictive monetary and fiscal policies, will be deflationary in character and will stimulate exports and discourage imports.

6. Exchange Control: Exchange control refers to government regulation of exchange rate as well as restriction on the conversion of local currency into foreign currency. Under this system, all exporters are asked to surrender their foreign exchanges to the central bank. Then foreign exchanges are rationed out to licensed importers. The aim of exchange control is to bring about an equality between the demand for and the supply of foreign exchange through state intervention and control.

12.11 Direct Controls

Direct controls take the form of exchange control, capital control and commodity control. Imports and exports can be directly controlled by various measures.

1. *Devaluation:* The home currency may be deliberately deflated. In that case, prices will come down and exports would be promoted and imports restricted.

2. *Import Restriction and Export Promotion:* Imports may be restricted by tariff, quotas, duties, licenses and so on. Exports may be promoted by giving bounties, incentives, tax concessions, advertisement and publicity, cost reduction, quality improvement and the like.

In short, correction of disequilibrium calls for a judicious combination of the following methods:

(i) Monetary and fiscal changes affecting income and prices in the country;

(ii) Exchange rate adjustment, i.e., depreciation or appreciation of the home currency;

(iii) Trade restrictions, i.e., tariffs, quotas, etc.;

(iv) Capital movement, i.e., borrowing or lending abroad; and

(v) Exchange control.

No reliance can be placed on any single tool. There is room for more than one approach and for more than one device. But the application of the tools depends on the nature of the disequilibrium. There are, we have said, three types of disequilibrium: (1) cyclical disequilibrium, (2) secular disequilibrium, (3) structural disequilibrium (at the goods and the factor level). It is more appropriate that fiscal measures should be used to correct cyclical disequilibrium in the balance of payments. To correct structural disequilibrium adjustment in exchange rate should be avoided. Capital movements are needed to offset deep-seated forces in secular disequilibrium.

The main methods of desirable adjustment are, therefore, monetary and fiscal policies which directly affect income, and exchange depreciation (that is, devaluation) which affects prices in the first instance. Devaluation or depreciation of exchange rate can also have income effect through price effects. Monetary and fiscal policies affect relative prices also.

Summary

- The BOP is a statistical account of the transactions between residents of one country and residents of the rest of the world for a period of one year or fraction thereof.

- BOP is divided into 3 accounts: capital account, current account and Official Reserves Account. The current account records the net flow of goods, services and unilateral transfers;

- The capital account records the net flow of FDI in plant, equipment and long-term, short-term portfolio (debt and equity) investment; and The ORA measures changes in the holdings of foreign currency, SDRs and gold by the central bank of a nation.

- The BOP must always equal 0, i.e., balance since it is an accounting identity in a fixed exchange rate system.

- When payments are larger than receipts in international transactions, it is called deficit balance of payments, but when receipts are larger than payments, it is called surplus balance of payments.

- Short-term disturbances like floods, crop failures, drought and so on may raise imports and reduce exports, and Increase in income may lead to more imports and less exports lead to an imbalance in BOP.

- The currency will, therefore, depreciate against other currencies and, in consequence, demand for exports will increase (because they have become cheaper abroad) while demand for imports will fall (because they have become more expensive in the domestic economy).
- The current account balance is the sum of the balance of merchandise trade, services and net transfers received from the rest of the world. The capital account balance is equal to capital flows from the rest of the world, minus capital flows to the rest of the world.

Keywords

- Balance of Payments: Record of all transactions made between one particular country and all other countries during a specified period of time.
- Deficit Balance of Payments: When payments are larger than receipts in international transactions.
- Devaluation: It means an official reduction in the external value of a currency vis-à-vis gold or other currencies.
- Exchange Control: It refers to government regulation of exchange rate as well as restriction on the conversion of local currency into foreign currency.
- Expenditure Switching Policies: It involves policies that cause domestic spending to switch away from imports to home produced goods

Self Assessment

1. Which of these is not included in the current account of BOP?

A. Expenditure on tourism
B. Expenditure on defense
C. Investment income
D. Government lending's

2. Visible goods are recorded in this part of balance of payments account:

A. Current account
B. Capital account
C. Govt. account
D. Official account

3. BOP must always be equal to:

A. 0
B. 1
C. GDP
D. Government spending

4. ....balance includes the basic balance plus the short-term private non-liquid capital balance.

A. Current account
B. Basic

C. Net liquidity

D. Official settlement

5. .... disequilibrium is caused by persistent deep-rooted dynamic that slowly takes place in the economy over a long period of time.

A. Cyclical

B. Secular

C. Structural

D. Fundamental

6. Balance in capital account refer to the

A. Nation's net exports of goods and services

B. Nation's net exports of financial claims

C. Nation's net exports of international official reserve assets

D. Nation's sum of net exports of goods, services and financial claims

7. Which of the following are the components of balance of payments?

1. Financial capital transfer

2. External loan and investment

3. Foreign institutional investment

4. Issuing of external bonds

5. Export and imports of goods and services

Select the correct answer using the codes given below:

A. 1, 2, and 3 only

B. 2, 3, and 4 only

C. 1, 4, and 5 only

D. 1, 2, 3, 4, and 5

8. Invisible items in balance of payments include:

A. Foreign remittances

B. Income from tourists

C. Internet charges

D. All the three

9. Which of the following must always balance:

A. Balance of visible trade

B. Balance of invisible trade

C. Balance on the current account

D. Balance of payments

10. Corrective measures to current account deficit may be:

A. Monetary

B. Non-monetary

C. Both A&B

D. None

11. What is a current account deficit?

A. Running a deficit means that there is a net outflow of demand versus the income that comes into a country.

B. This can be thought of as a country "not paying their way".

C. The current account isn't required to balance, because the capital account can run a surplus.

D. All of the above

12. If a country has a balance of payments deficit, this is probably owing to them importing more goods and services than it exports. It will therefore need to borrow from another country to pay for the imports.

A. True

B. False

13. Non-Monetary measures corrective measures to current account deficit include:

A. Tariffs: These are duties placed upon imports.

B. Quotas: A government may fix a permanent amount of a good that may be imported into a country.

C. Export promotion

D. import substitution

14. Monetary measures corrective measures to current account deficit include:

A. Exchange rate depreciation

B. Deflation

C. Exchange control

D. All of the above

15. Which of the following statements is true?

A. The BOP record is maintained in a single-entry book-keeping method.

B. The BOP record is maintained in a double-entry book-keeping method.

C. The BOP record is maintained in a multiple-entry book-keeping method.

D. The BOP record is not maintained systematically.

Answers for Self Assessment

1.	D	2.	A	3.	A	4.	C	5.	B
6.	B	7.	D	8.	D	9.	D	10.	C

11. D   12. A   13. D   14. D   15. B

Review Questions

1. Differentiate between balance of trade and current account balance.

2. What are official reserve transactions? Explain their importance in the balance

of payments.

3. Explain the following: (a) The current account, (b) The capital account and, (c) The official

reserve account.

4. Distinguish between balance of trade and balance of payments. What information would

you get about the economic position of a country from its BOP?

5. Describe the term disequilibrium in balance of payments. State various conscious policy

measures to correct this disequilibrium.

6. Support the statement: "It is best to offset a capital account surplus with a current account deficit".

7. 'Technological changes are a major cause of disequilibrium in the balance of payments.' Do you agree? Give suitable arguments to justify your answer.

8. Explain the various measures that can be adopted to correct disequilibrium.

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Web Links

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http://www.economicshelp.org/Macro   Economics/bop/probs-balancepayments-deficit.html

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Unit 13: Foreign Direct Investment and Multinational Firms

Objectives

After reading this Unit, the students will be able to:

- To examine the trend and pattern of Global FDI inflows
- To study the growth of FDI in developing countries and its regional distribution
- To study the Growth of FDI in India
- To discuss the interrelationship between FDI and multinational enterprises in developed and developing countries
- To critically analyze the operations of MNCs in India.

Introduction

FDI has remained one of the important features of globalization over the past three decades. It has been growing at an unprecedented pace for more than two decades, with only a slight interruption during the early 1990s (WIR, 1995). Thus, for many developing countries, FDI has become the principle source of foreign capital. The boost to FDI at global level is mainly owing to the fact that large number of regulatory changes have been implemented in favor of FDI during 1990-2021. During the period 1990 – 1999, 1035 regulatory changes in FDI have been introduced, out of which 974 (94%) changes are favorable for FDI. Similarly, from 2001-15, 1536 regulatory changes in FDI have been introduced in different countries, out of which 1202 (78.3%) are related to liberalization promotion and facilitation investment. The consistent rise in global FDI inflows has been registered during the period 1990-2021. The trends and patterns of global FDI inflows from 1990-2021 shows that it is the developed nations who remained the major recipient of global FDI inflows in the beginning, but it is the developing nations whose share in the global FDI inflows has consistently increased since 1990s. The rising share of developing countries in global FDI inflows is mainly attributed to FDI liberalization policies, bilateral investment treaties (BITs), double investment treaties and special trade and investment zones gaining momentum. Global FDI inflows have increased from 153959 US$ million (in current prices) in 1991 to 1582310 US$ million (in current prices) in 2021. The changing composition of global FDI inflows shows that the developing countries have not only shown an absolute increase in the global FDI inflows but their percentage

share in total global FDI inflows has also increased from 24.57 per cent in 1991 to 52.87 per cent in 2021.

Figure 6.1 Trends and Patterns of Global FDI inflows
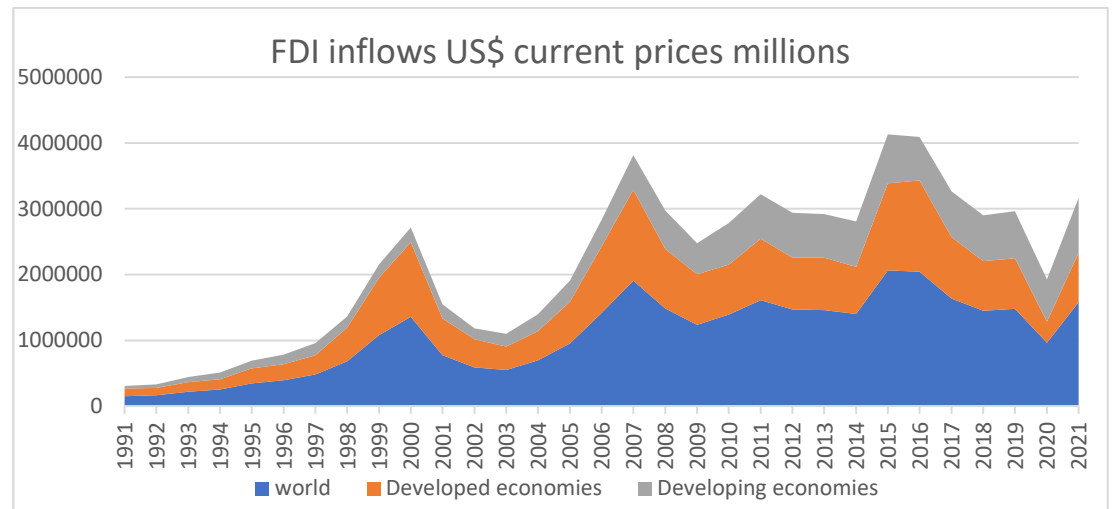
Table 6.1 Global FDI Inflows, developed and Developing countries: Trends and Patterns

(US$ at current prices in millions)

Year	Global FDI inflows	Developed Countries' FDI Inflows	Developing Countries' FDI Inflows
1981	69580	45902	23679
1985	55851	42118	13733
1991	153959	116123	37836
1995	345143	228407	116736
2001	773131	560144	212987
2005	953220	630460	322759
2011	1610398	933049	677349
2015	2 063 638	1322723	740915
2016	2 045 424	1384814	660609
2017	1 632 639	937683	694955
2018	1 448 276	753320	694956
2019	1 480 626	764456	716170

2020	963 139	319190	643949
2021	1 582 310	745739	836571

The table 6.1 and figure 6.1 shows that there has been continuous rise in FDI inflows from 1991 till 2021.However, there is sharp fall in FDI inflows from 2000 to 2001. Two main factors account for this sharp fall in FDI inflows i.e. The slowdown of economic activity in major industrial economies and decrease in the stock market activity of these economies. These two factors combined to decrease the cross-border mergers and acquisitions (M&A) that mainly drives the FDI. This decline in global FDI inflows is further continued till 2004. After registering a continuous rise from 2005-2007, these global FDI inflows started decreasing from 2007 to 2008. These global FDI inflows have fallen in developed countries i.e.(US$ 1382377 US$ million in 2007 to US$ 901912 million in 2008)whereas developing countries showed a rise in FDI inflows from US$ 523096 million in 2007 to US$ 584323 million in 2008. It shows the increasing importance of these economies as hosts of FDI especially in 2008.However, it is in late 2008 and the early 2009 that developing countries had the impact of financial crisis on their global FDI inflows, as a result their inflows started to decline in 2009 (450957 US$ millions). The economic downturn in major export markets started to seriously affect these economies. Global FDI inflows continued to decrease in 2009 also as the financial crisis entered a tumultuous phase in September 2008, following the collapse of Lehman Brothers and also the major developed economies approached economic recession. It is from 2010 onwards that global FDI inflows started recovering and picking up in 2011 and 2012. Global FDI flows jumped by 38 per cent to $1,762 billion. Global foreign direct investment (FDI) flows in 2021 were $158310, up 64 per cent from the exceptionally low level in 2020. This recovery in global FDI inflows showed significant rebound momentum with booming merger and acquisition (M&A) markets and rapid growth in international project finance due to loose financing conditions and major infrastructure stimulus packages.

This fragile growth of real productive investment is likely to persist in 2022.The Russian invasion on Ukraine with rising food, fuel prices and financial crises, along with the ongoing COVID-19 pandemic and climate disruption, all signs of tension, particularly in developing countries. The estimates of global growth for the year are already down by a full percentage point. There is significant risk that the momentum for recovery in international investment will stall prematurely, hampering efforts to boost finance for sustainable development.

13.1 Regional Picture of FDI Inflows Among Developing Countries

The distribution of global FDI inflows within the developing region depicts that Asia has remained at forefront of attracting largest FDI inflows from the beginning till end i.e. 1991-2021.The FDI inflows in Asia region has shown persistent increase from US$ 967020 million in current prices in 1991 to US$ 9595074 million in 2021 except for the years 1998, 2001-02 and 2009, owing to Asian crisis and recession of 2008 respectively. It is notable that the rapid growth of FDI inflows in Asian region is attributed to the strong performance of China and India. These two countries mainly attracted by the size and growth of their domestic market and availability of cheap market.

FDI flows to developing economies grew more slowly than those to developed regions but still increased by 30 per cent, to $836571 million. The increase has been the result of strong growth performance in Asia region, some recovery in Latin America and the Caribbean, and an upswing in Africa. The share of developing countries in global flows remained just above 50 per cent (836571US$ million of FDI inflows in developing countries out of Global FDI inflows of 1582310 US$ million in 2021)

- FDI flows to Africa reached $83 billion, from $39 billion in 2020. Most recipients saw a moderate rise in FDI.
- In developing Asia, despite successive waves of COVID-19, Foreign direct investment increased to an all-time high for the third consecutive year, reaching $619 billion.

- FDI in Latin America and the Caribbean rose by 56 per cent to $134 billion. Most economies saw inflows rebound, with only a few experiencing further declines.
- FDI flows to the structurally weak, vulnerable and small economies rose by 15 per cent to $39 billion. Inflows to the least developed countries (LDCs), landlocked developing countries (LLDCs) and small island developing States (SIDS) combined accounted for only 2.5 per cent of the world total in 2021, down from 3.5 per cent in 2020.

Table 6.2 Regional Distribution of FDI inflows among Developing Countries: Asia, Latin America& Caribbean and Asia (US$ millions in current prices)

Year	Total	Africa	Latin America and Carribean	Asia
2005	322759	29260	77179	216320
2011	677349	46441	210249	429660
2015	740915	57922	152839	530155
2016	660609	46250	136221	478138
2017	694955	40176	153536	501243
2018	694956	45384	151978	497593
2019	716170	45678	158744	511748
2020	643949	38952	86172	518825
2021	836571	82991	134458	619122

Table 6.3 and Figure 6.2 - Sectors having Highest Global FDI inflows: 2021-2022

There are few major sectors attracting highest FDI in India in the year 2021-22. Some of those sectors include service sector, computer hardware and software, telecommunications, trading and automobile industry etc.

Sectors	FDI Inflows in US$ Millions in 2021-2022
Service Sector	7131
Computer Software and Hardware	14461
Telecommunications	668
Trading	4538
Automobile Industry	6994
Construction Infrastructure Activities	3248
Construction Development: Townships, housing, built-up infrastructure and construction-development projects	125
chemicals (other than fertilizeinr)	966

Drugs & pharmaceuticals	1414
Metallurgical industries	2272
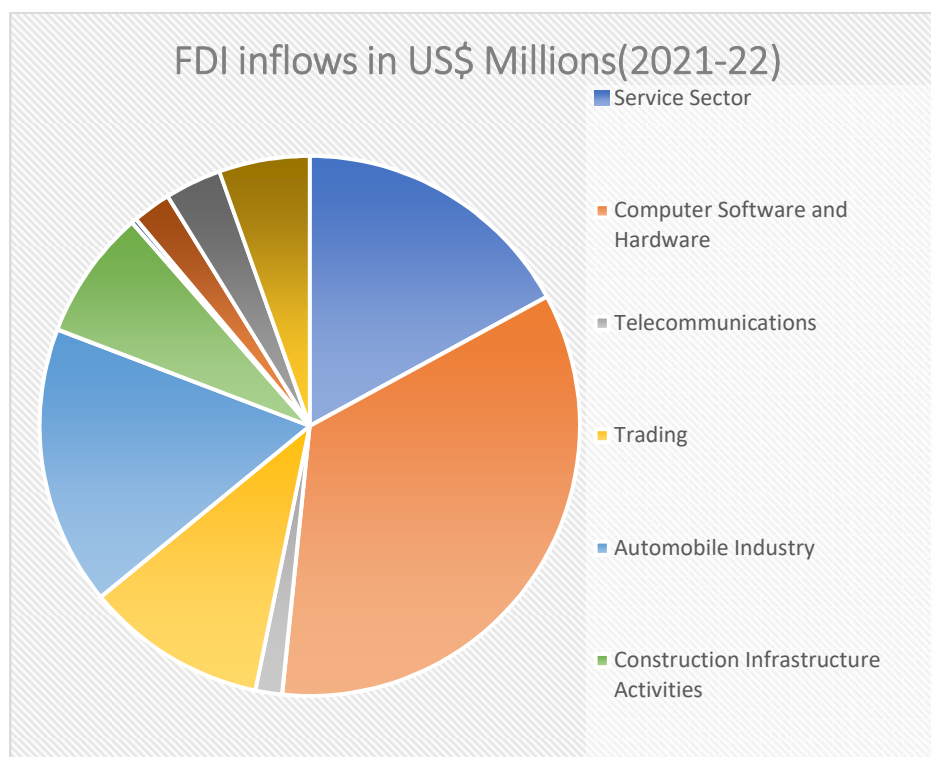
Table 6.4 and 6.3 - A Glance at FDI inflows into India: 2000-01 to 2021-22

The surge in FDI inflows in developing nations is to a large extent attributed to rise in FDI in India, China, Taiwan, Hong Kong(China) and Singapore. These countries have always been dominant to attract major chunk of FDI in total FDI inflows of developing countries (Singh, L. and Jain, V.2009). FDI inflows in India has increased from 4029 US$ million in 2000-01 to 84835 US$ million in 2021-22.

Year	FDI inflows to India (US$ Million)
2000-01	4029
2005-06	8961
2010-11	34847
2014-15	45148
2015-16	55559
2016-17	60220
2017-18	60974
2018-19	62001
2019-20	74391

International Economics

2020-21	81973
2021-22	84835(P)

(P) stands for provisional
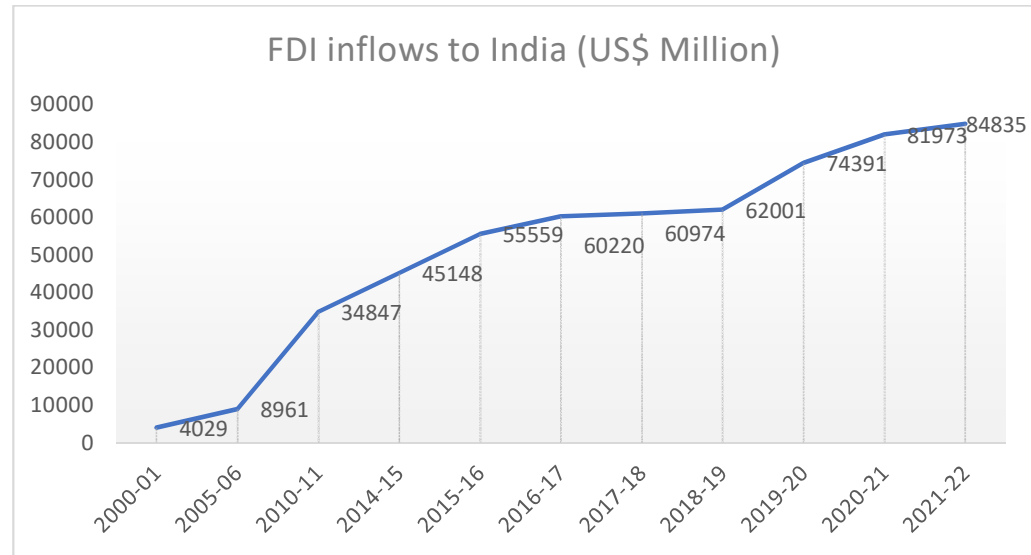
13.2 FDI and Multinational Enterprises in India: Historical Background

Due to a number of factors, including the public sector's prominent role in the industrial strategy and the government's restrictive foreign investment policies, relatively little foreign investment had occurred in India.In the late 1970s, a few international corporations, including IBM and Coca-Cola, even departed India because they found the government's policies intolerable.

The most frequent criticism levelled at multinational corporations was that they consistently tended to invest in developing countries' high-profit, low-priority areas, disregarding those governments' own goals. However, the government's strategy in India restricted foreign investment to key industries like high technology, heavy investment sectors, and export sectors. However, businesses that had already been formed in non-priority sectors before the implementation of this strategy have been permitted to stay in those industries. The contentious Multinational Exchange Regulation Act (FERA), passed in 1973, mandated that foreign corporations operating in India must reduce their foreign equity stake to 40%. (exceptions were allowed in certain cases like high technology and export oriented sectors). An ownership stake of between 25 per cent and 40 per cent had implied (Chhibber & Majumdar, 1999). It includes restrictions on the ownership control, entry of MNCs, setting up of joint ventures with domestic partners

The fact that MNCs squander developing nations' resources for foreign cash is another significant argument against MNCs. Contrary to widespread opinion, foreign corporations actually use less foreign exchange reserves than Indian ones, according to Aiyar's analysis.He also makes the argument that, compared to multinationals, the public sector has a larger tendency to employ foreign exchange. In fact, the public sector's foreign exchange expenditures alone exceeded the nation's whole trade deficit. By using the net foreign exchange inflow or outflow, it is incorrect to evaluate the net impact of multinational corporations on the foreign exchange reserves. If a multinational is operating in an import substitution industry, the net effect on the foreign exchange reserves could be favorable even if there is a net foreign exchange outflow by the company.

Multinationals in several developing countries make substantial contribution to export earnings. The performance in the case of India has, however, been very dismal. This is attributed mostly to the Government policy. "We have consistently followed policies in India that discriminate against export production and in favor of production for the local market. In this milieu, it has not made sense for the Indian private sector or public sector to focus on exports. Naturally, it has not made sense for foreign companies either. In 1947, foreign companies did not have an anti-export image.

In fact the most prominent companies were engaged in the export of tea and jute manufactures. Only after Jawaharlal Nehru decided to emphasize import-substitution at the expense of exports did foreign (and Indian) companies shun exports.

Although export promotion has been a priority since the Third Plan, local markets are significantly more alluring than exports due to their high levels of protection and unrealistic exchange rates. Since the mid 1980s ,with the economic liberalization that increased domestic competition and the steady depreciation of the rupee enormously exports began to become attractive and several foreign companies and companies with foreign participation, as well as Indian companies, have become serious about exports. This was reflected in the acceleration of the export growth.

The new policy is expected to give a considerable impetus for MNC's investment in India. However, foreign companies find the policy and procedural environment in India still perplexing and disgusting. Since the economic liberalisation ushered in 1991, many multinationals in different lines of business have entered the Indian market. After 1992, government of India allowed foreign MNCs to make a joint venture with domestic companies. However, now joint venture and a wholly-owned subsidiary of MNC can come and set up business in India. General Motors (USA) entered into India as a joint venture with Hindustan Motors in 1994. Other foreign MNCs like Daimler Benz (Germany), Ford (USA), Honda (Japan), Fiat (Italy), Toyota Motors (Japan),Hyundai Motors (S.K.) and Mitsubishi Motors (Japan) entered into Indian market through a joint venture with Indian companies after 1994. A number of multinationals which were in India prior to this have expanded their business. Recently, FDI in India has surged. The major highlights of NIP 1991 which helped to boost FDI inflows were

- Abolition of industrial licensing system except for 18 industries specified in the Annex-II of the statement, which includes those industries which manufactured, hazardous chemicals and items of elitists consumption or of national concerns social well being and the environment concerns.

- Ceiling of 40 percent foreign equity under FERA was done away with.

- Removal of registration under MRTP Act.

- Foreign investment promotion board (FIPB) was established and has been authorized to provide a single   window clearance for all project proposals regarded by it.

- Introduction of the dual approval system for FDI proposals viz. (i) through an automatic approval channel for FDI in 35 priority sectors by RBI up to equity participation 51 percent and (ii) through formal government of India channel via FIPB/SIA.

- Existing companies were allowed to hike their foreign equity upto 51 percent in priority sector.

- Dilution of dividend balancing conditions and its related exports obligation except in case of 22 consumer goods industries.

- Removal of restrictions of FDI in low technology sectors.

- Automatic permission for technology agreement in high priority industries.

- Removal of condition for FDI with necessary technology agreements etc.

Did You Know?

PROHIBITED SECTORS : These are sectors below where FDI is not allowed

- Lottery Business including Government/private lottery, online lotteries, etc.

- Gambling and Betting including casinos etc.

- Chit funds

- Nidhi company

- Trading in Transferable Development Rights (TDRs)

- Real Estate Business or Construction of Farm Houses

- Manufacturing of cigars, cheroots, cigarillos and cigarettes, of tobacco or of

tobacco substitutes.

- Activities/sectors not open to private sector investment e.g.(I) Atomic Energy and (II) Railway operations

tobacco substitutes

Table 6.5 mentions below some important sectors where FDI is allowed either via automatic route or Government Route

SECTORS	Percentage of Equity/FDI cap	Entry Route
Defence	**100%**	Automatic up to 74% Government route beyond 74% wherever it is likely to result in access to modern technology or for other reasons to be recorded
Broadcasting carriage services	100%	Automatic
Print Media (i)Publishing of newspapers (ii)Publishing of Indian edition of foreign magazines dealing with current affairs	26% in (i) and (ii)	Government
Civil Aviation **Airports** **(i) Greenfield projects**	100%	Automatic
(ii) Existing Projects	100%	Automatic
E-commerce Activities	100%	Automatic
Banking-Private Sector	74%	Automatic up to 49% Government route beyond 49% and up to 74%.
Banking- Public Sector subject to Banking Companies (Acquisition & Transfer of Undertakings) Acts 1970/80. This ceiling (20%) is also applicable to the State Bank of India and its associate Banks.	20%	Government
Credit Information Companies	100%	Automatic
Pension Sector	49%	Automatic

13.3 Operations of Multinational Enterprises

A firm that owns and controls operations in more than one country is a multinational enterprise. The parent firm in the MINE is the headquarters or base firm, located in the home country of the MINE. The parent firm has one or more foreign affiliates (branches or subsidiaries) located in one or more host countries.

The multinational enterprise uses flows of FDI foreign direct investment to establish or finance its foreign affiliates. The multinational firm is more than just the flow of foreign direct investment in two different ways. (i)Foreign affiliates receives small fraction of their total financing from the direct investment flows and (ii)Apart from the direct investment financing, MNEs transfers many other things to its foreign affiliates. The multinational enterprise typically provides its affiliates with a variety of intangible assets for the affiliates to use. These intangible assets include proprietary frontier technologies in relevant fields, brand names, marketing capabilities, trade secrets, and managerial practices. A foreign affiliate can obtain financing either from its parent (or other parts of the MNE) or from outside lenders and investors (for instance, banks or the buyers of bonds that the affiliate issues). Only the former is foreign direct investment, and it is mostly the small fraction of the total financing of the affiliate. For all MNEs in the world in 2000, foreign affiliates had $21 trillion of financing in place, but only $6 trillion of that financing was provided by foreign direct investment by the multinational enterprises. Evidence for U.S.-based multinationals indicates that borrowing in the host countries provides more than half of the outside financing.

Why does FDI provide so little of the affiliates' total funding?

❖ An important reason is that a parent firm wants to reduce the risks to which its foreign activities are exposed. One risk is unexpected changes in exchange rates which can change the value of its foreign direct investment. A good risk-reducing strategy for a parent company that has foreign-currency assets in its affiliates is to take on foreign-currency liabilities as well, by borrowing in foreign currencies that are used to finance the affiliate.

❖ Another risk is political risk, the possibility that the government of a host country will alter its policies in ways that harm the multinational enterprise i.e. the possibility of expropriation or nationalization of an affiliate by the host-country government is a political risk. Since World War I and the Russian revolution, host countries have shown willingness to seize the assets of multinationals, sometimes without compensating the investors. Realizing the danger of expropriation, many multinationals reduce their exposure to this kind of risk by matching much of the value of their physical assets in a host country with borrowings in that country. If political change brings expropriation, the parent country also can tell the host country lenders to try to collect their repayments from their own (expropriating) government. The shedding of liabilties offset part or all of their asset losses in the country. The parent firms' technology marketing secrets, and managerial skills typically preclude expropriation.

Recent Highlights of FDI and Multinational Enterprises

The large swings in foreign direct investment registered during the first and second year of the pandemic especially in developed countries, were mainly caused by the substantial financial flow component of FDI and by transactions that are closely linked to the performance of financial markets. The booming Mergers and acquisitions market and retained earnings of multinational enterprises explain much of the rapid rebound of growth of FDI in 2021. The corollary is visible in much weaker growth of greenfield investments in industry and in the low share of new equity in FDI flows.

13.4 FDI and Role of Multinational Enterprises in Developed Economies

The majority of the increase in foreign direct investment in 2021 was attributable to the reinvested earnings component of FDI, which refers to profits held in foreign affiliates by multinational corporations. The greatest amount ever seen in the United States was $200 billion in reinvested earnings. Other industrialised nations with high levels of reinvested incomes include Switzerland,

the Netherlands, Canada, Australia, and Belgium. Global equity investment increased more slowly, reflecting the slower growth of new project investments and the transition to international project finance, which frequently relies more heavily on debt financing and has a considerably smaller equity component.

Intracompany loans remained negative in many countries. The importance of retained earnings in foreign direct investment flows of 2021 shows the record level rise in profit level of multinational enterprises in most of the developed economies. Others significant factors i.e. the release of pent-up demand, low financing costs and significant government support also contributed to the profitability of the largest multinational enterprises doubled to 8.2 per cent.

As a result of these growth factors, developed economies registered the largest increase in their foreign direct investment so far reaching $746 billion in 2021, almost more than double the exceptionally lower levels of foreign direct investment in 2020. In Europe, FDI rose in majority of the countries, although half of the increase was caused by large fluctuations in major conduit economies. Inflows in the United States more than doubled, with much of the increase accounted for by a surge in cross-border M&As. Although much of the growth in FDI in developed countries was driven by financial flows and M&As, there were indications of investment strength in actual new projects. Investor confidence was high in infrastructure sectors, supported by favorable long-term financing conditions and recovery stimulus packages. International project finance deals in developed economies were up 70 per cent in number and 149 per cent in value.

Figure 6.4 Profit and Profitability of Multinational Enterprises from 2010 to 2021
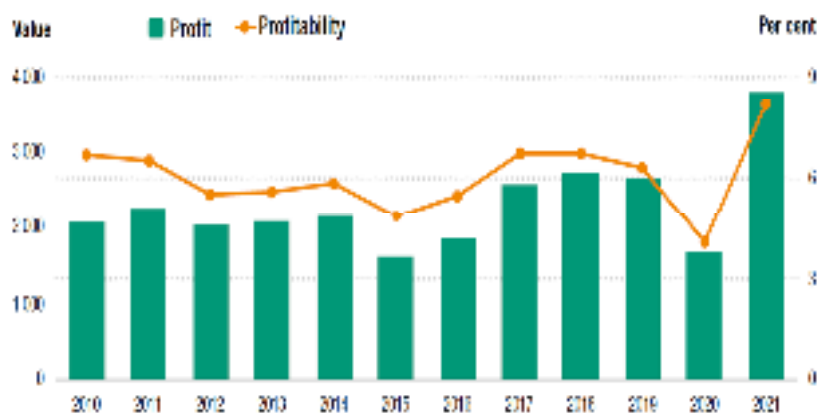
6.5 FDI and Role of Multinational Enterprises in Developing Economies

FDI flows to developing economies increased by 30 per cent, to $836571 million with 19 percent growth in developing Asia to around $619122million, a partial recovery in Latin America and the Caribbean , with FDI inflows touching $134458 million and an uptick in Africa with its FDI inflows around $82991 million. International project finance deals rose by 64 per cent in number (142 per cent in value). Investor confidence in industry remained weak, although the low points seen in GVC-intensive industries in 2020 were not repeated and several industries registered a partial recovery. Greenfield project announcements in developing countries were flat in value terms, although activity (project numbers) increased by 16 per cent.

Table6.5 Greenfield FDI Projects, Cross border Mergers and acquisitions and International Project Finance deals: Developed and Developing Countries

Group of economies	Type of FDI	Value (Billions of dollars) 2020	2021	Growth rate (%)	Number 2020	2021	Growth rate %
Developed economies	Cross-border M&As	509	515	56	6333	7333	27
	Greenfield projects	516	421	27	8996	9722	9
	International project finance	364	555	149	742	1222	70
Developing economies	Cross-border M&As	86	113	31	888	1222	16
	Greenfield projects	358	255	–	4238	4322	16
	International project finance	220	532	122	530	853	84

Summary

FDI has remained one of the important features of globalization over the past three decades. The boost to FDI at global level is mainly owing to the fact that large number of regulatory changes have been implemented in favor of FDI during 1990-2021. Global FDI inflows have increased from 153959 US$ million (in current prices) in 1991 to 1582310 US$ million (in current prices) in 2021. The changing composition of global FDI inflows shows that the developing countries have not only shown an absolute increase in the global FDI inflows but their percentage share in total global FDI inflows has also shown an increase from 24.57 per cent in 1991 to 52.87 per cent in 2021. FDI flows to developing economies grew more slowly than those to developed regions but still increased by 30 per cent, to $836571 million. The increase has been the result of strong growth performance in Asia region, some recovery in Latin America and the Caribbean, and an upswing in Africa. In developing Asia, despite successive waves of COVID-19, Foreign direct investment increased to an all-time high for the third consecutive year, reaching $619 billion. Further, it shows that there are some factors attracting largest FDI inflows in India which are i.e. service sector, computer hardware and software, telecommunications, trading and automobile industry. Due to the public sector's prominent role in the industrial strategy and the government's restrictive foreign investment policies, relatively little foreign investment had occurred in India. In the late 1970s, a few international corporations, including IBM and Coca-Cola, even departed India because they found the government's policies intolerable. The entry of foreign MNCs into India has seen a marked increase since the liberalization of the Indian economy, which has dismantled the licensing system for setting up industry and encourage FDI. For the first time, manufacturing sector opened for foreign MNCs aiming to raise its growth potential and integrating with the world economy. These policy reforms gradually removed restrictions on investment projects and allowed increased access to foreign technology. After 1992, government of India allowed foreign MNCs to make a joint venture with domestic companies. A series of measures that were directed towards liberalizing foreign investment included: (a) introduction of dual-route of FDI approval – RBI's automatic route and government's approval routes (b) automatic permission for technology agreements in high priority industries and liberalization of technology imports (c) permission to Non-resident Indians (NRIs) to invest up to 100 per cent in high priorities sectors. These efforts had boosted by the enactment of the Foreign Exchange Management Act (FEMA-1999). The recent scenario however shows that the majority of the increase in foreign direct investment in 2021 was attributable to the reinvested earnings component of FDI, which refers to profits held in foreign affiliates by multinational corporations. The importance of retained earnings in foreign direct investment flows of 2021 shows the record level rise in profit level of multinational enterprises in most of the developed economies which is well evident from figure 6.3 above- showing rise in profits of multinational enterprises from 2010 to 2021.The profits of Multinational enterprises touched around 9% in 2021 from a record low level in 2020.

Keywords

- Foreign direct investment FDI inflows

- Multinational enterprises MNEs
- developed countries
- developing countries
- Trends and patterns of FDI
- Economic growth,

Self Assessment

1. FDI inflows in developing countries is classified into

A. three country groupings
B. Four country groupings
C. Two Country Groupings
D. Seven country groupings

2. FDI is classified in to which of the following three country groupings

A. Africa, Latin America and Caribbean and Asia
B. High income economies, middle income economies and low income economies
C. European economies
D. None of the above

3. Which of the three country groupings is having highest share in total FDI inflows to developing countries

A. Latin America and Caribbean
B. Africa
C. (C) Asia
D. Middle East economies

4. The share of developing countries in Global FDI inflows in 2021 is

A. More than 50%
B. less than 30%
C. More than 74%
D. Less than 20%

5. The reinvested earnings component of FDI_____ by multinational enterprises accounted for the much of the growth in foreign direct investment in 2021.

A. profits retained in foreign affiliates
B. Mergers and Acquisitions
C. (C) International Project Finance
D. All of the above

6. FDI allowed in Banking-Private sector is

A. 26%
B. 74%
C. 49%

D. (D)100%

7. Foreign Exchange Regulation Act (FERA), 1973, required the foreign companies in India to dilute the foreign equity holding to _____

A. 26 per cent

B. 40 per cent

C. 15% per cent

D. 34% per cent

8. The sectors where FDI is not allowed are

A. Gambling and Betting including casinos

B. Chit funds

C. Lottery Business including Government/private lottery, online lotteries, etc.

D. All of the three above

9.. Greenfield investment involves the establishment of new operations in a foreign country

 A. True

 B. False

10. The rising share of developing countries in global FDI inflows is mainly attributed to

A. FDI liberalization policies,

B. bilateral investment treaties (BITs),

C. double investment treaties and special trade and investment zones gaining momentum.

D. All of the three above.

11. FDI flows to Africa reached _____in 2021, from $39 billion in 2020.

A. $83 billion

B. $63 Billion

C. $45 Billion

D. $50 Billion

12 Sectors receiving highest FDI in 2021-22 are

A. Computer Software and Hardware

B. Automobile Industry

C. Both (A) and (B)

D. Pension

13. FDI Inflows to Asia in 2021 are _____

A. $497593 million

B. $619122 million

C. $530155 million

D. None of the above

14. The FDI inflow in Drugs and Pharmaceutical Industry in 2021-2022 is

A. $2034 millions

B. $3019 millions

C. $1414 millions

D. $ 4083 million

15. When the company makes investment in existing facility in the foreign country in order to start its operations, it is called

A. Brownfield investment

B. Greenfield investment

C. Mergers and Acquisitions

D. International project finance

Answers for Self Assessment

l.	A	2.	A	3.	C	4.	A	5.	A
6.	B	7.	B	8.	D	9.	A	10.	D
11.	A	12.	C	13.	B	14.	C	15.	A

Review Questions

1. Critically Examine the Impact of Multinational Corporations on India
2. Analyse the Impact of FDI on employment in India.
3. What is he Role of Multinational Corporations in Economic Development of Developing Countries? Support your Answer with the Help of Any Developing Country
4. What is the Role of FDI in Economic Development of Developing Countries? Explain with the help of Suitable Examples.
5. Critically examine the operation of Multinational Corporations?

Further Readings

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Unit 14: TRIPS and Developing Economies

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Objectives

- Understand the relation between trips and developing economies
- Discuss its importance, challenges and role of different aspects in context of developing economies.

Introduction

In today's interconnected and globalized world, the Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement plays a crucial role in shaping the intellectual property landscape. The TRIPS Agreement, established by the World Trade Organization (WTO), sets international standards for intellectual property protection and enforcement. Developing economies, with their expanding markets and emerging industries, have become significant players in the global context. These economies contribute to international trade, innovation, and economic growth. However, they often face unique challenges when it comes to navigating the intellectual property landscape due to factors such as limited resources, technological capabilities, and varying levels of economic development. The purpose of this chapter is to examine the interaction between the TRIPS Agreement and developing economies. It aims to shed light on how the TRIPS Agreement impacts product standards, parallel imports, innovations, and welfare in these economies. By exploring these topics, we seek to understand the opportunities and challenges that developing economies encounter in harnessing the potential of intellectual property rights for their growth and development. Throughout this chapter, we will address several key research questions. How does the TRIPS Agreement affect the ability of developing economies to meet international product standards? What are the implications of parallel imports on the economies of developing countries, and how does the TRIPS Agreement regulate this phenomenon? How do innovations in developing economies contribute to welfare and economic growth, and how does the TRIPS Agreement influence this relationship? Finally, what policy recommendations can be made to leverage the TRIPS Agreement for promoting innovation and growth in developing economies? By delving into these questions, we aim to provide a comprehensive analysis of the interplay between the TRIPS Agreement, innovation, and economic development in developing economies. Through a deeper understanding of these dynamics, policymakers and stakeholders can better navigate the

intellectual property landscape and design effective strategies to foster sustainable growth and prosperity.

14.1 Product Standards and Developing Economies

Definition and Significance of Product Standards

Product standards refer to the set of technical requirements, specifications, and guidelines that products must meet to ensure their quality, safety, and compatibility with established norms. These standards can encompass various aspects such as performance, dimensions, labelling, packaging, and environmental considerations. They are established to protect consumers, promote fair trade practices, and facilitate market access. Product standards play a crucial role in international trade as they provide a basis for ensuring the quality and safety of products crossing borders. They contribute to consumer confidence, facilitate market integration, and promote fair competition among businesses. Additionally, adherence to internationally recognized product standards can enhance a country's reputation, attracting foreign investments and boosting exports.

Challenges Faced by Developing Economies in Meeting Product Standards

Developing economies encounter several challenges when it comes to meeting product standards. These challenges can be attributed to factors such as limited technological infrastructure, capacity constraints, cost implications, and information asymmetry. Let's explore these challenges in detail:

1. Limited Technological Infrastructure:

Developing economies often lack the necessary technological infrastructure to comply with complex and evolving product standards. This includes inadequate access to advanced testing facilities, research and development capabilities, and specialized knowledge. Without these resources, it becomes difficult for businesses to ensure that their products meet the required standards. For instance, the absence of proper laboratory facilities for testing and certification can hinder compliance with safety or quality standards.

2. Capacity Constraints:

Building and maintaining the institutional capacity to develop and implement product standards pose significant challenges for developing economies. This capacity includes establishing regulatory frameworks, conducting product testing and certification, and ensuring compliance monitoring and enforcement. Developing countries may face limitations in terms of human resources, expertise, and financial resources required to establish and operate these regulatory mechanisms effectively. This can result in delays or inefficiencies in implementing and enforcing product standards.

3. Cost Implications:

Complying with product standards can impose significant costs on businesses, especially for small and medium-sized enterprises (SMEs) in developing economies. Investments in technology upgrades, research and development, training, and compliance procedures can be financially burdensome. The cost of acquiring or upgrading machinery, equipment, and production processes to meet the required standards can be prohibitive for many businesses, particularly those with limited financial resources. These costs can hinder the competitiveness of local industries, especially when competing with products from more developed economies.

4. Information Asymmetry:

Developing economies often face challenges due to information asymmetry regarding international product standards and related regulations. This asymmetry arises from a lack of access to updated and comprehensive information about the requirements imposed by importing countries. Insufficient knowledge and understanding of these standards can lead to difficulties in complying with them, creating barriers to trade. This issue is particularly pronounced for SMEs and small-scale producers who may lack the resources and networks to access information on evolving product standards.

5. Trade Barriers and Discrimination:

Developing economies may face discriminatory practices and trade barriers related to product standards. Some developed countries might impose stringent product standards as non-tariff barriers, making it difficult for products from developing economies to access their markets. Such barriers can be used as protectionist measures, restricting market access for products from developing economies and impeding their export potential.

6. Cultural and Contextual Factors:

Product standards are often designed based on the specific needs, preferences, and socio-cultural contexts of developed economies. These standards may not always consider the unique circumstances of developing economies. Differences in production techniques, traditional practices, and local customs can create challenges in meeting international product standards. Developing economies may require flexibility to adopt standards that are more suitable to their local conditions and priorities without compromising safety or quality.

Addressing these challenges requires comprehensive strategies and support from various stakeholders, including governments, international organizations, and industry associations. Measures such as technology transfer, capacity-building initiatives, technical assistance programs, and enhanced information dissemination can help developing economies overcome the barriers and enhance their capacity to meet international product standards.

Impact of TRIPS Agreement on product standards in developing economies

The TRIPS Agreement has had a significant impact on product standards in developing economies, both positive and negative. Let's explore the key impacts in detail:

Positive Impact:

a. Encouraging Harmonization:

The TRIPS Agreement promotes the harmonization of intellectual property standards, including patents, trademarks, and copyrights. This harmonization extends to product standards as well, as intellectual property rights often intersect with technical requirements for products. The establishment of common international benchmarks and standards can facilitate market access for developing economies. By aligning their product standards with international norms, these economies can enhance their competitiveness and credibility in global markets.

b. Facilitating Technology Transfer:

The TRIPS Agreement includes provisions that encourage the transfer of technology between developed and developing countries. Technology transfer is essential for developing economies to meet product standards, as it provides access to knowledge, expertise, and advanced technologies. Provisions such as compulsory licensing and technology cooperation agreements facilitate the transfer of technology, enabling developing economies to acquire the necessary capabilities to comply with product standards.

Negative Impact:

a. Increased Compliance Costs:

The TRIPS Agreement's requirements for intellectual property protection can impose additional costs on developing economies. To meet product standards, businesses may need to obtain patents, licenses, or trademarks, which can be costly, particularly for small and resource-constrained enterprises. Compliance with intellectual property regulations and licensing agreements may raise the costs of technology transfer, potentially affecting the affordability and accessibility of products for consumers in developing economies.

b. Limited Policy Flexibilities:

The TRIPS Agreement establishes minimum standards for intellectual property protection that member countries must adhere to. This limits the policy flexibilities of developing economies, preventing them from adopting tailored product standards that align with their specific needs and development objectives. Developing economies may require the flexibility to implement standards that consider their socio-economic conditions, local practices, and technological capabilities. The rigid intellectual property standards can hinder their ability to strike a balance between protecting intellectual property rights and promoting innovation and access to essential goods and technologies.

c. Impact on Access to Essential Goods and Technologies:

The TRIPS Agreement's strong intellectual property protection provisions have the potential to restrict access to essential goods and technologies in developing economies. Strict patent regimes can impede access to affordable medicines, agricultural technologies, and clean energy solutions. This can have adverse effects on public health, food security, and sustainable development in these economies.

It is important to note that the impact of the TRIPS Agreement on product standards in developing economies can vary depending on several factors, including the level of development, technological capabilities, and policy choices of individual countries. Some developing economies have effectively utilized the TRIPS Agreement to enhance their product standards and promote innovation, while others have faced challenges in balancing intellectual property rights protection with their socio-economic priorities.

To mitigate the negative impacts and maximize the positive effects, developing economies can implement supportive policies and measures. These may include technology transfer initiatives, capacity-building programs, flexible interpretation of intellectual property rules, and policy space to adopt standards that are appropriate for their specific circumstances. Additionally, international cooperation, technical assistance, and knowledge sharing among countries can play a vital role in helping developing economies navigate the complexities of product standards in the context of the TRIPS Agreement.

Case Study: Product Standards and Developing Economies in the Textile Industry in Bangladesh

The textile industry in Bangladesh provides a compelling case study to understand the effects of product standards on developing economies. Bangladesh is one of the world's largest textile exporters, with its garments accounting for a significant share of its total exports. However, the industry has faced numerous challenges related to product standards, particularly in the context of international trade.

Challenge 1: Compliance with Safety and Social Standards

Bangladesh's textile industry has faced significant scrutiny and pressure from international stakeholders regarding safety and social standards. Tragic incidents, such as the Rana Plaza factory collapse in 2013, exposed serious concerns about worker safety and labor rights. In response, international buyers and trade partners increasingly demanded compliance with strict safety and social standards, including building safety codes, worker welfare, and fair labor practices. Meeting these standards required substantial investments in infrastructure, training, and compliance mechanisms, posing financial challenges for the industry and the country.

Challenge 2: Technical Requirements and Quality Standards

To access international markets, textile exporters in Bangladesh must meet technical requirements and quality standards imposed by importing countries. These requirements often include testing for chemical content, color fastness, and dimensional stability. However, the lack of advanced testing facilities and limited technological infrastructure in Bangladesh has made compliance difficult and costly for many manufacturers. Access to reliable and affordable testing facilities and laboratories has been a challenge for small and medium-sized enterprises, impacting their ability to meet the stringent product standards.

Challenge 3: Environmental Sustainability and Compliance

As sustainability concerns have gained prominence, the textile industry faces increasing pressure to comply with environmental standards. This includes reducing water and energy consumption, minimizing pollution, and adopting sustainable production practices. Implementing environmentally friendly technologies and practices requires significant investments, particularly for resource-constrained firms in developing economies. Achieving compliance with these standards can be a significant challenge, impacting the competitiveness of exporters from developing economies like Bangladesh.

Impact:

The challenges related to product standards have had both positive and negative impacts on Bangladesh's textile industry:

Positive Impact:

Capacity Building and Technological Upgrades: The need to comply with international product standards has encouraged capacity building and technological upgrades in the textile industry. Manufacturers have invested in improved production processes, employee training, and infrastructure development to meet the stringent standards. This has resulted in increased efficiency and competitiveness.

Negative Impact:

Financial Burden on Small and Medium Enterprises (SMEs): Compliance with product standards has imposed a significant financial burden on SMEs, which form a substantial portion of Bangladesh's textile industry. The cost of meeting standards and acquiring necessary certifications has strained their resources and competitiveness.

Barriers to Market Access: Stricter product standards have become non-tariff barriers to trade for Bangladesh's textile exporters. Failure to meet the requirements of importing countries can lead to rejections, delays, or loss of market access, hampering export growth and economic development.

Addressing the Challenges:

To address the challenges and maximize the benefits of product standards, Bangladesh has taken several initiatives. These include:

Building Regulatory Capacity: Bangladesh has strengthened its regulatory framework to ensure compliance with safety, social, and environmental standards. This includes enacting laws, establishing inspection and certification bodies, and implementing monitoring mechanisms.

Collaborative Efforts: Bangladesh has collaborated with international organizations, buyers, and industry associations to improve compliance and enhance competitiveness. Initiatives such as the Accord on Fire and Building Safety in Bangladesh and the Alliance for Bangladesh Worker Safety have focused on ensuring worker safety and improving labor conditions.

Technological Upgrades and Capacity Building: The government and industry stakeholders have invested in upgrading technology and providing technical training to improve compliance with product standards. This includes establishing testing laboratories and providing support for research and development.

Public-Private Partnerships: Collaborations between the government, industry, and development partners have facilitated capacity building, knowledge sharing, and resource mobilization to address the challenges of product standards effectively.

By addressing these challenges and leveraging the opportunities, Bangladesh's textile industry aims to enhance its compliance with product standards, improve market access, and sustain its economic growth in the global market.

14.2 Parallel Imports and Developing Economies

Parallel imports, also known as parallel trade or grey market trade, refer to the practice of importing and reselling genuine products from one market into another without the authorization of the manufacturer or authorized distributor in the importing market. It occurs when a product is legitimately manufactured and marketed in one country but is then imported and sold in another country without the consent of the manufacturer or authorized channels of distribution.

Relevance of Parallel Imports to Developing Economies:

1. **Access to Affordable Products:**

Parallel imports can play a crucial role in providing developing economies with access to affordable products. By bypassing the authorized distribution channels, parallel imports can introduce genuine products into the market at potentially lower prices. This can benefit consumers who may not have been able to afford the products through traditional distribution channels due to higher prices or limited availability.

2. **Competition and Market Efficiency:**

Parallel imports can enhance competition in the market by introducing additional suppliers and increasing consumer choices. The presence of parallel imports can encourage authorized distributors and manufacturers to adjust their pricing strategies and improve efficiency to remain competitive. This increased competition can lead to lower prices, improved product quality, and better services for consumers in developing economies.

3. Overcoming Distribution Barriers:

Developing economies may face distribution barriers, including limited availability of certain products or delayed market entry. Parallel imports can help overcome these barriers by introducing products into the market more quickly, filling gaps in the supply chain. This can be particularly relevant for essential goods and products that have a significant impact on public health or well-being.

4. Promoting Innovation and Market Entry:

Parallel imports can act as catalysts for innovation and market entry. When authorized distributors or manufacturers hold exclusive rights, parallel imports can challenge their market dominance and encourage innovation and improved offerings. This can stimulate competition and drive the introduction of new products, technologies, and business models in developing economies.

Challenging Monopolistic Practices:

Parallel imports can help counter monopolistic practices and anti-competitive behavior. In some cases, authorized distributors or manufacturers may engage in price discrimination by charging higher prices in certain markets. Parallel imports can disrupt such practices by offering the same products at lower prices, forcing manufacturers and authorized channels to adjust their pricing strategies.

Challenges and Considerations:

1. Quality Control and Consumer Safety:

Parallel imports may raise concerns about quality control and consumer safety. Since the products are sourced from outside the authorized distribution channels, there may be challenges in ensuring product authenticity, proper labeling, and adherence to local regulations and safety standards. Developing economies need to establish mechanisms to address these concerns and protect consumer interests.

2. Intellectual Property Rights:

Parallel imports can raise issues related to intellectual property rights. Manufacturers or authorized distributors may argue that parallel imports infringe on their exclusive rights and undermine their ability to control pricing, distribution, and branding. Developing economies must strike a balance between promoting competition and innovation while respecting intellectual property rights and international obligations, such as the TRIPS Agreement.

3. Impact on Local Industries:

Parallel imports can potentially impact local industries and businesses, particularly small-scale enterprises that may struggle to compete with lower-priced parallel imports. Developing economies need to assess the potential impact on local industries and consider policies or measures to support domestic producers and ensure a level playing field.

4. Regulatory Framework:

Developing economies must establish and enforce a clear regulatory framework to address the complexities of parallel imports. This framework should address issues related to product safety, consumer protection, intellectual property rights, and fair competition. Developing economies may also need to establish mechanisms for monitoring and enforcing compliance with these regulations.

In summary, parallel imports can have both positive and negative effects on developing economies. While they can provide access to affordable products, enhance competition, and stimulate innovation, they also raise challenges related to consumer safety, intellectual property rights, and

the impact on local industries. Developing economies need to carefully consider these factors and establish appropriate regulatory frameworks to manage the impact of parallel imports effectively.

Role of TRIPS Agreement in regulating parallel imports in developing economies

The TRIPS Agreement, administered by the World Trade Organization (WTO), establishes minimum standards for intellectual property rights, including patents, trademarks, and copyrights. While the TRIPS Agreement does not directly regulate parallel imports, it provides a framework for member countries to determine their approach to parallel importation and enables them to establish their own legal and regulatory measures to address the issue. Here's the role of the TRIPS Agreement in regulating parallel imports in developing economies:

1. **Exhaustion of Intellectual Property Rights:** The TRIPS Agreement includes provisions on the exhaustion of intellectual property rights. Exhaustion refers to the concept that once a product is placed on the market with the authorization of the intellectual property right holder, their rights to control further distribution are considered exhausted or "exhausted." The TRIPS Agreement allows member countries to choose between national exhaustion (where the rights are exhausted only within the country) or international exhaustion (where the rights are exhausted worldwide). Developing economies can determine their exhaustion regime, which can impact the legality and regulation of parallel imports.

2. **Enforcement of Intellectual Property Rights:** The TRIPS Agreement requires member countries to establish effective enforcement mechanisms to protect intellectual property rights. This includes taking appropriate legal actions against infringements, including parallel imports that violate the rights of intellectual property holders. Developing economies are obliged to provide a legal framework and procedures for intellectual property enforcement, enabling rights holders to seek remedies against parallel imports that infringe their intellectual property rights.

3. **Anti-Counterfeiting Measures:** The TRIPS Agreement emphasizes the importance of combating counterfeit goods, which can include parallel imports of counterfeit products. Developing economies are encouraged to establish measures to prevent the importation and distribution of counterfeit goods, protecting both consumers and legitimate intellectual property rights holders. These measures can include customs procedures, border enforcement, and cooperation with other countries to combat counterfeiting.

4. **Flexibilities and Policy Space:** The TRIPS Agreement provides flexibilities for member countries to adopt measures that balance intellectual property rights with public health, access to medicines, and other public policy objectives. Developing economies can use these flexibilities to regulate parallel imports in a manner that aligns with their specific needs and priorities. For example, countries may adopt measures that allow for parallel imports of essential goods or products to ensure affordability and access for their populations.

5. **Dispute Settlement Mechanism:** The TRIPS Agreement includes a dispute settlement mechanism that allows member countries to address any disputes related to the interpretation and implementation of the agreement. If a developing economy believes that another member country's regulations on parallel imports are inconsistent with its obligations under the TRIPS Agreement, it can seek recourse through the dispute settlement process to ensure compliance and address any potential trade-related concerns.

It is important to note that the TRIPS Agreement provides a framework and minimum standards for intellectual property rights but allows member countries to determine the specific legal and regulatory measures to address parallel imports. Developing economies have the flexibility to

establish their own policies and regulations, taking into consideration their domestic priorities, economic development goals, and public welfare concerns while ensuring compliance with their obligations under the TRIPS Agreement.

14.3 Innovations and Welfare in Developing Economies

Developing economies have increasingly become significant players in the global innovation landscape. While historically innovation has been associated with developed countries, developing economies are now actively fostering innovation to drive economic growth, improve living standards, and address societal challenges. Here's an overview of the innovation landscape in developing economies:

1. Rising Innovation Capacity: Developing economies have been investing in building their innovation capacity by establishing research institutions, universities, and innovation hubs. They are fostering a conducive ecosystem for innovation by promoting entrepreneurship, supporting startups, and providing access to financing and mentorship. Governments are implementing policies to encourage research and development, intellectual property protection, and technology transfer to foster innovation.

2. Technological Leapfrogging: Developing economies often have the advantage of leapfrogging traditional technologies and directly adopting advanced technologies. With the rapid spread of digital technologies and the internet, developing economies have been able to bypass traditional stages of development and adopt innovative solutions in areas such as mobile banking, e-commerce, renewable energy, and telecommunication. This leapfrogging enables them to quickly catch up and compete globally.

3. Innovation for Social Impact: Developing economies are leveraging innovation to address social challenges and improve the lives of their populations. This includes innovations in healthcare, education, agriculture, clean energy, water management, and financial inclusion. Social entrepreneurs and innovation-driven enterprises are developing solutions tailored to the specific needs and constraints of developing economies, aiming to create positive social impact alongside economic growth.

4. Frugal Innovation: Developing economies often face resource constraints, which have led to the emergence of frugal innovation. Frugal innovation refers to the development of affordable, simple, and sustainable solutions to meet the needs of underserved populations. This approach focuses on cost-effectiveness, efficiency, and adaptability, enabling innovative products and services to reach a larger customer base, including those at the bottom of the economic pyramid.

5. Collaborative Innovation: Developing economies are embracing collaborative innovation models that involve partnerships between academia, industry, government, and civil society. These collaborations foster knowledge sharing, technology transfer, and joint research and development efforts. Public-private partnerships, innovation clusters, and innovation networks are emerging to support collaboration and leverage diverse expertise and resources.

6. Sustainable and Green Innovation: Developing economies are increasingly prioritizing sustainable and green innovation to address environmental challenges and promote sustainable development. They are focusing on renewable energy, eco-friendly technologies, waste management, and resource-efficient practices. These innovations aim to reduce environmental impact, enhance resource efficiency, and promote sustainable growth models.

7. Intellectual Property Rights and Innovation: Developing economies are working on strengthening their intellectual property rights (IPR) systems to protect and incentivize innovation. They are aligning their IPR frameworks with international standards while also considering the balance between protection and access to knowledge. This enables innovators to secure their rights and encourages further investment in research and development.

Developing economies recognize the importance of innovation as a driver of economic growth, job creation, and social progress. They are actively investing in building their innovation ecosystems, fostering entrepreneurship, and leveraging technological advancements. With a combination of local solutions, collaborative efforts, and the adoption of global best practices, developing economies are poised to make significant contributions to the global innovation landscape.

Factors Influencing Innovation in Developing Economies:

a. Education and Human Capital:

Access to quality education and the presence of a skilled workforce are crucial factors for fostering innovation. Developing economies that prioritize investments in education and skill development can create a pool of talent equipped with the knowledge and skills necessary for innovation-driven activities.

b. Research and Development (R&D) Investment:

Adequate investment in R&D activities is a key driver of innovation. Developing economies that allocate resources to R&D, whether through public funding, private sector investment, or collaborations with research institutions, can stimulate innovation by supporting scientific and technological advancements.

c. Infrastructure Development:

The availability of robust infrastructure, including reliable energy, transportation, and communication networks, is essential for fostering innovation. Accessible and efficient infrastructure enables the flow of ideas, facilitates collaboration, and supports the diffusion of innovations across different regions.

d. Entrepreneurship and Start-up Ecosystems:

Developing economies that foster entrepreneurial culture and provide an enabling environment for start-ups can spur innovation. Supportive policies, access to finance, incubation programs, and networking opportunities encourage individuals to pursue innovative ideas, launch new ventures, and contribute to economic growth.

e. Access to Financing:

Adequate access to financing, including venture capital, angel investment, and supportive banking systems, plays a crucial role in driving innovation. Developing economies that facilitate access to capital for entrepreneurs and innovators can accelerate the development and commercialization of innovative ideas and technologies.

f. Collaboration and Networks:

Collaboration among various stakeholders, including academia, industry, government, and civil society, is vital for promoting innovation in developing economies. Building partnerships, creating innovation networks, and fostering knowledge exchange enable the pooling of resources, expertise, and ideas, leading to more impactful and sustainable innovation outcomes.

Relationship between Innovations, Welfare, and Economic Growth in Developing Economies:

Innovations in developing economies have the potential to significantly impact welfare and economic growth in several ways:

a.   Poverty Reduction and Socioeconomic Development:

Innovations can contribute to poverty reduction by creating new job opportunities, improving productivity, and generating income. Innovative solutions in sectors such as agriculture, healthcare, education, and financial services can enhance access, affordability, and quality, thereby improving overall welfare and living standards.

b.   Enhanced Productivity and Competitiveness:

Innovation-driven economies are more likely to experience higher productivity and competitiveness. Through the adoption of advanced technologies, improved processes, and novel business models, developing economies can enhance their productivity levels, increase efficiency, and gain a competitive edge in domestic and international markets.

c.   Economic Diversification:

Innovations enable developing economies to diversify their economic base by moving away from traditional sectors and expanding into new industries. This diversification reduces dependence on a limited range of commodities and promotes sustainable economic growth by creating a more resilient and dynamic economy.

d.   Improved Access to Basic Services:

Innovations can address critical challenges related to access to basic services, such as healthcare, education, clean water, and energy. Developing economies that embrace technological advancements and innovative solutions can overcome infrastructure gaps and deliver essential services to underserved populations, thereby improving welfare outcomes.

e.   Technological Spillover Effects:

Innovations in one sector can have spillover effects on other sectors, leading to broader economic development. Developing economies that encourage knowledge diffusion, technology transfer, and collaboration between industries can experience positive externalities, where advancements in one area contribute to progress in other sectors.

f.   Role of TRIPS Agreement in Promoting or Hindering Innovations and Welfare in Developing Economies:

The TRIPS Agreement, while primarily focused on intellectual property rights, can have both positive and negative implications for innovation and welfare in developing economies:

a.   Promotion of Innovation and Technology Transfer:

The TRIPS Agreement encourages the protection of intellectual property rights, providing incentives for innovation and knowledge creation. By safeguarding the rights of innovators, it can promote investment in research and development, technology transfer, and the dissemination of knowledge across borders, benefiting developing economies.

b.   Access to Essential Medicines:

The TRIPS Agreement includes provisions that allow developing economies to take measures to ensure access to essential medicines at affordable prices. These provisions enable countries to issue compulsory licenses, import generic versions of patented medicines, and engage in parallel importation, facilitating access to life-saving treatments and addressing public health challenges.

c.   Potential Barriers to Technology Transfer:

The TRIPS Agreement's stringent intellectual property protection provisions may pose challenges for developing economies in accessing and adopting innovative technologies. High licensing fees, patent restrictions, and barriers to technology transfer can hinder the diffusion of innovations and limit the capacity of developing economies to leverage advanced technologies for their development needs.

d.   Balancing Intellectual Property Rights and Public Welfare:

Developing economies need to strike a balance between protecting intellectual property rights and promoting public welfare. The TRIPS Agreement provides flexibilities that allow countries to

implement measures to protect public health, promote access to knowledge, and support socioeconomic development, while respecting the minimum standards for intellectual property protection.

e.   Enforcement Challenges and Capacity Building:

Developing economies may face challenges in effectively enforcing intellectual property rights and implementing the provisions of the TRIPS Agreement. Limited resources, capacity constraints, and the need for technical expertise can hinder the effective utilization of intellectual property rights for innovation and welfare-enhancing purposes. Capacity-building initiatives and technical assistance can support developing economies in maximizing the benefits of the TRIPS Agreement.

Developing economies need to navigate the provisions of the TRIPS Agreement, utilizing the flexibilities available to promote innovation, access to essential goods, and public welfare. By striking a balance between intellectual property rights protection and the socioeconomic needs of their populations, developing economies can leverage innovations to drive inclusive and sustainable development.

14.4 TRIPS Agreement, Innovation, and Growth in Developing Economies

The relationship between the TRIPS Agreement and innovation in developing economies can be complex. While the agreement provides intellectual property rights protection, it also includes flexibilities that can support innovation in these economies. Here's an examination of the relationship:

a.   Intellectual Property Rights Protection: The TRIPS Agreement establishes minimum standards for intellectual property protection, including patents, trademarks, and copyrights. These protections can incentivize innovation by providing creators and innovators with exclusive rights and the opportunity to monetize their inventions and creations. Developing economies that effectively implement and enforce these intellectual property rights can attract investment in research and development, leading to increased innovation.

b.   Technology Transfer and Knowledge Diffusion: The TRIPS Agreement recognizes the importance of technology transfer and knowledge diffusion for developing economies. It encourages developed countries to provide assistance and support to developing economies in building their technological capacities. Through licensing agreements, joint ventures, and collaborations, developing economies can gain access to advanced technologies, knowledge, and best practices, stimulating innovation and fostering technological progress.

c.   Access to Essential Goods and Services: The TRIPS Agreement includes flexibilities that allow developing economies to address public health concerns and promote access to essential goods and services. For instance, compulsory licensing provisions enable governments to authorize the production or importation of generic versions of patented medicines, ensuring affordable access to life-saving treatments. This can foster innovation in the pharmaceutical sector and improve healthcare outcomes in developing economies.

Impact of TRIPS Agreement on Economic Growth in Developing Economies:

The TRIPS Agreement can have significant implications for economic growth in developing economies. Here are some key impacts to consider:

a.   Attraction of Foreign Direct Investment (FDI): The TRIPS Agreement's intellectual property rights protection provisions can attract foreign direct investment in developing

economies. Multinational corporations and innovative firms are more likely to invest in countries with strong intellectual property rights regimes. This investment can bring in capital, technology transfer, and knowledge spillovers, contributing to economic growth and industrial development.

b. Development of Innovation-Driven Industries: The TRIPS Agreement can drive the development of innovation-driven industries in developing economies. Intellectual property protection provides incentives for domestic firms to invest in research and development and bring innovative products and services to the market. This can lead to the growth of high-value-added industries, job creation, and increased competitiveness in global markets.

c. Technology Upgrading and Capability Building: By fostering technology transfer and knowledge diffusion, the TRIPS Agreement can support technology upgrading and capability building in developing economies. Access to advanced technologies and knowledge can enhance productivity, efficiency, and competitiveness across various sectors. Developing economies that effectively leverage these opportunities can experience higher rates of economic growth and catch up with more advanced economies.

d. Trade and Market Access: Compliance with the TRIPS Agreement can facilitate trade and market access for developing economies. Intellectual property protection reassures trading partners and facilitates participation in global value chains. Access to international markets can stimulate export-oriented growth, diversify the economy, and attract foreign investment, leading to overall economic expansion.

Policy Recommendations for Leveraging the TRIPS Agreement to Foster Innovation and Growth in Developing Economies:

To leverage the TRIPS Agreement for promoting innovation and growth in developing economies, the following policy recommendations can be considered:

a. Intellectual Property Rights Framework:

Developing economies should establish a robust intellectual property rights framework that strikes a balance between protection and access to knowledge. The framework should provide adequate protection to incentivize innovation while incorporating flexibilities that allow for addressing developmental challenges and ensuring access to essential goods and services.

b. Technology Transfer and Collaboration:

Developing economies should actively promote technology transfer and collaboration with developed countries and among domestic stakeholders. This can be achieved through partnerships, joint research initiatives, and licensing agreements. Governments can provide incentives and support mechanisms to facilitate technology transfer and collaboration, fostering innovation and knowledge diffusion.

c. Investment in Research and Development:

Developing economies should prioritize investment in research and development (R&D). Governments can establish research grants, funding programs, and tax incentives to encourage R&D activities in both public and private sectors. Collaboration between academia, industry, and government is crucial for bridging the gap between research and commercialization, leading to innovation-driven economic growth.

d. Support for Small and Medium Enterprises (SMEs):

Developing economies should provide support for SMEs to engage in innovation activities. This includes access to financing, business incubation programs, and training initiatives that enhance entrepreneurial skills and innovation capabilities. Policies should focus on creating an enabling environment for SMEs to thrive and contribute to economic growth through innovation.

e. Intellectual Property Rights Education and Awareness:

Developing economies should prioritize intellectual property rights education and awareness programs. By promoting understanding of intellectual property rights among innovators, entrepreneurs, and the general public, developing economies can effectively utilize and protect their innovations. Education programs can also raise awareness about the importance of respecting intellectual property rights and the benefits of a robust intellectual property system.

Examples of economies that have leveraged the TRIPS Agreement to foster innovation and growth include:

India:

India has utilized the TRIPS Agreement's flexibilities to address public health challenges and promote access to affordable medicines. The country has issued compulsory licenses for essential medicines, allowing domestic pharmaceutical companies to produce generic versions at lower costs. This has facilitated access to medicines for the population and supported the growth of the generic pharmaceutical industry, contributing to economic development.

Brazil:

Brazil has implemented policies to foster innovation in the agricultural sector. Through the TRIPS Agreement's flexibilities, Brazil has encouraged the development of genetically modified crops and technologies, leading to increased agricultural productivity and export competitiveness. The country has leveraged intellectual property rights protection to incentivize research and development in the agricultural biotechnology sector, driving economic growth.

These examples demonstrate how developing economies can navigate the TRIPS Agreement to promote innovation and foster economic growth. By formulating tailored policies and utilizing the flexibilities provided by the agreement, developing economies can leverage intellectual property rights protection to their advantage while addressing their unique developmental challenges.

14.5   Implications for Policy and Future Research:

Policy Implications:

Based on the findings, several policy implications can be drawn to leverage the TRIPS Agreement for fostering innovation and growth in developing economies:

a. Developing economies should establish robust intellectual property rights frameworks that strike a balance between protection and access to knowledge, incorporating flexibilities that address developmental challenges.

b. Governments should prioritize investment in research and development, support technology transfer and collaboration, and create an enabling environment for SMEs to engage in innovation activities.

c. Intellectual property rights education and awareness programs should be implemented to promote understanding and respect for intellectual property rights among innovators, entrepreneurs, and the general public.

Future Research Directions:

Future research in this area can further explore the following aspects:

a. In-depth case studies on specific developing economies and their experiences in navigating the TRIPS Agreement, highlighting success stories, challenges, and lessons learned.

b. Analysis of the effectiveness of policy interventions and strategies employed by developing economies to leverage the TRIPS Agreement for innovation and growth.

c. Examination of the long-term impacts of intellectual property rights protection and innovation on sustainable development and inclusive growth in developing economies.

d. Comparative studies that assess the effectiveness of different intellectual property rights regimes and their implications for innovation and economic growth in developing economies.

By addressing these research gaps, policymakers and scholars can gain a deeper understanding of the relationship between the TRIPS Agreement, innovation, and growth in developing economies

and develop more effective strategies to harness the benefits of intellectual property rights for sustainable and inclusive development.

Summary

In this chapter, we explored the relationship between the TRIPS Agreement, innovation, and economic growth in developing economies. Here are the key findings:

The TRIPS Agreement and Innovation:

The TRIPS Agreement can both promote and hinder innovation in developing economies. While it provides intellectual property rights protection, it also includes flexibilities that can support innovation, such as compulsory licensing and parallel imports. Developing economies that effectively navigate the agreement can attract investment in research and development, access advanced technologies, and foster knowledge creation.

Impact of the TRIPS Agreement on Economic Growth:

The TRIPS Agreement has the potential to positively impact economic growth in developing economies. By providing intellectual property rights protection, it attracts foreign direct investment, promotes technology transfer, and drives the development of innovation-driven industries. Compliance with the agreement can enhance market access and export competitiveness, contributing to overall economic expansion.

Keywords

- TRIPS: A global agreement that promotes innovation and intellectual property rights protection.
- Innovation: The driving force behind economic growth and development in developing economies.
- Parallel Imports: A practice that allows products to be imported from one market to another without the permission of the intellectual property rights holder.
- Intellectual property rights: A hindrance to innovation and economic growth in developing economies.
- Product standards: Regulations and specifications that define the quality, safety, and performance requirements for a particular product.

Self Assessment

1. Which of the following is a key feature of the TRIPS Agreement in relation to innovation in developing economies?

A. Strict intellectual property rights protection without any flexibilities
B. Encouragement of technology transfer and knowledge diffusion
C. Limitation of access to essential goods and services
D. Promotion of monopolistic practices in developing economies

2. How can the TRIPS Agreement impact economic growth in developing economies?

A. By discouraging foreign direct investment and technology transfer
B. By promoting competition and innovation
C. By limiting access to essential medicines and technologies
D. By hindering domestic industries from accessing global markets

3. What are some challenges faced by developing economies in meeting product standards?

A. Lack of financial resources

B. Limited technological capabilities

C. Insufficient infrastructure

D. All of the above

4. How does the TRIPS Agreement impact product standards in developing economies?

A. It imposes strict product standards on developing economies

B. It provides flexibility for developing economies to set their own product standards

C. It exempts developing economies from complying with any product standards

D. It encourages parallel imports to bypass product standards

5. Which of the following is an example of a developing economy that has leveraged the TRIPS Agreement to foster innovation and growth?

A. United States

B. Germany

C. India

D. Japan

6. How does the TRIPS Agreement influence the relationship between innovation, welfare, and economic growth in developing economies?

A. It hinders innovation and economic growth in developing economies

B. It promotes innovation but negatively impacts welfare in developing economies

C. It supports innovation and contributes to improved welfare and economic growth in developing economies

D. It has no significant impact on innovation, welfare, or economic growth in developing economies

7. Which of the following is not a policy recommendation for leveraging the TRIPS Agreement to foster innovation and growth in developing economies?

A. Establishing a robust intellectual property rights framework

B. Encouraging technology transfer and collaboration

C. Limiting access to essential goods and services

D. Supporting research and development activities

8. How can the TRIPS Agreement contribute to economic growth in developing economies?

A. By creating barriers to international trade and investment

B. By protecting intellectual property rights and attracting foreign direct investment

C. By limiting access to technology and knowledge

D. By promoting monopolistic practices in domestic industries

9. Which of the following is a potential impact of the TRIPS Agreement on parallel imports in developing economies?

A. Encouragement of parallel imports to increase market competition

B. Restriction of parallel imports to protect domestic industries

C. Promotion of counterfeit products through parallel imports

D. No impact on parallel imports in developing economies

10. How can developing economies leverage the TRIPS Agreement to foster innovation and growth?

A. By strictly enforcing intellectual property rights and limiting access to technology

B. By promoting technology transfer and collaboration with developed countries

C. By avoiding compliance with the TRIPS Agreement to protect domestic industries

D. By restricting foreign direct investment and competition

11. Which of the following is a key factor influencing innovation in developing economies?

A. Limited access to financial resources

B. High levels of bureaucracy

C. Lack of skilled workforce

D. All of the above

12. What role does the TRIPS Agreement play in regulating parallel imports in developing economies?

A. It encourages parallel imports to promote market competition

B. It restricts parallel imports to protect domestic industries

C. It has no influence on parallel imports in developing economies

D. It provides flexibilities for developing economies to regulate parallel imports

13. How does the TRIPS Agreement impact economic growth in developing economies?

A. It hinders economic growth by restricting access to technology

B. It promotes economic growth by attracting foreign direct investment

C. It has no significant impact on economic growth in developing economies

D. It encourages monopolistic practices, negatively affecting economic growth

14. Which of the following economies has successfully leveraged the TRIPS Agreement to foster innovation and growth?

A. China

B. France

C. Mexico

D. South Korea

15. What is the primary objective of the TRIPS Agreement in relation to innovation and growth in developing economies?

A. To restrict access to technology and knowledge

B. To promote market monopolies in developing economies

C. To strike a balance between intellectual property protection and access to knowledge

D. To discourage innovation and economic growth in developing economies.

Answers for Self-Assessment

l.	B	2.	B	3.	D	4.	B	5.	C
6.	C	7.	C	8.	B	9.	B	10.	B
11.	D	12.	B	13.	B	14.	D	15.	C

Review Questions

1. Discuss the impact of the TRIPS Agreement on innovation in developing economies. What are some key provisions of the agreement that can support or hinder innovation?

2. Explain the relationship between innovation, welfare, and economic growth in developing economies. How can the TRIPS Agreement influence this relationship?

3. Compare and contrast the challenges faced by developing economies in meeting product standards. How does the TRIPS Agreement impact the ability of developing economies to meet these standards?

4. Evaluate the role of parallel imports in developing economies. What are the advantages and disadvantages of parallel imports, and how does the TRIPS Agreement regulate this practice?

5. Discuss the innovation landscape in developing economies. What are the main factors that influence innovation in these economies, and how can the TRIPS Agreement impact these factors?

6. Assess the impact of the TRIPS Agreement on economic growth in developing economies. Provide examples of developing economies that have experienced significant economic growth as a result of complying with the agreement.

7. Review the policy recommendations for leveraging the TRIPS Agreement to foster innovation and growth in developing economies. Evaluate the feasibility and effectiveness of these recommendations.

8. Examine the case studies of India and Brazil as examples of developing economies leveraging the TRIPS Agreement for innovation and growth. Analyze the specific strategies and policies implemented by these countries and their outcomes.

9. Critically analyze the role of intellectual property rights education and awareness in developing economies. How can such initiatives contribute to fostering innovation and ensuring the benefits of the TRIPS Agreement are realized?

10. Evaluate the implications of the TRIPS Agreement on sustainable development and inclusive growth in developing economies. Discuss the potential trade-offs between intellectual property protection and access to essential goods and services in these contexts.

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Unit 15: International Outsourcing and off Shoring and Industrialization Strategies

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Objectives

- Understand the concept of off shoring and out sourcing.
- Analytical off shoring and out sourcing with scope of industrialization strategies.

Introduction

In today's globalized economy, international outsourcing and offshoring have become integral components of industrialization strategies. Outsourcing involves the delegation of business functions to external providers, while offshoring entails relocating operations to foreign countries. These practices have gained immense importance as organizations strive to enhance efficiency, reduce costs, and access new markets. International outsourcing allows companies to leverage the expertise and resources of external providers, enabling them to focus on their core competencies. By entrusting non-core activities to specialized service providers, organizations can streamline operations, improve productivity, and reduce costs. Furthermore, offshoring presents an opportunity to tap into foreign markets and take advantage of cost differentials, thereby enhancing competitiveness and driving industrialization. The significance of international outsourcing and offshoring in industrialization strategies lies in their potential to promote economic growth, foster innovation, and facilitate global integration. These practices enable companies to access a diverse range of skills, technologies, and markets, leading to improved efficiency and competitiveness. However, it is essential to understand the concepts, measurements, costs, and benefits associated with outsourcing and offshoring to effectively harness their potential and mitigate any associated challenges. This chapter will explore these aspects in detail, providing insights into the complexities and implications of international outsourcing and offshoring in the context of industrialization strategies.

15.1 Concepts and Measurements of Outsourcing and Offshoring

Outsourcing:

The transfer of business functions to external providers. Outsourcing refers to the practice of delegating specific business functions or processes to external service providers. It involves the transfer of responsibility for these functions from an organization to a third party. The primary objective of outsourcing is to leverage the expertise, resources, and efficiencies of external providers to improve overall operational effectiveness.

Types of outsourcing:

a. Information Technology (IT) Outsourcing: IT outsourcing involves contracting external vendors to manage and support an organization's technology infrastructure, software development, maintenance, and other IT-related services. This type of outsourcing allows companies to access specialized IT expertise, reduce costs, and focus on their core business operations.

b. Business Process Outsourcing (BPO): BPO refers to the outsourcing of specific non-core business processes to external service providers. These processes can include customer support, human resources, finance and accounting, procurement, and supply chain management. BPO allows organizations to streamline operations, reduce costs, and access specialized skills in these areas.

c. Knowledge Process Outsourcing (KPO): KPO involves outsourcing knowledge-intensive tasks that require advanced analytical and technical skills. This can include research and development, data analytics, market research, legal services, and consulting. KPO enables organizations to access specialized knowledge and expertise without significant investments in internal resources.

Factors Driving Outsourcing Decisions:

a. Cost Reduction: One of the primary motivations for outsourcing is cost reduction. By outsourcing certain functions, organizations can benefit from lower labor costs in offshore locations, reduced infrastructure and operational expenses, and economies of scale achieved by specialized service providers. Outsourcing allows organizations to focus on their core competencies and allocate resources more efficiently.

b. Access to Expertise: Outsourcing provides access to specialized skills and expertise that may not be available internally. External service providers often have extensive knowledge and experience in specific areas, allowing organizations to tap into their expertise without having to invest in building and maintaining those capabilities in-house. This access to specialized knowledge can drive innovation and enhance the quality of services or products.

c. Scalability and Flexibility: Outsourcing allows organizations to scale their operations quickly based on changing market demands. External service providers can offer flexible staffing arrangements and resources, allowing organizations to adapt to fluctuations in demand without incurring significant fixed costs. This scalability and flexibility enable organizations to remain agile and responsive in dynamic business environments.

d. Focus on Core Competencies: Outsourcing non-core functions enables organizations to concentrate their resources and efforts on core business activities that are critical to their competitive advantage. By delegating non-core tasks to external providers, companies can improve efficiency, enhance productivity, and focus on strategic initiatives that drive growth and innovation.

e. Risk Mitigation: Outsourcing can help organizations mitigate certain risks associated with specific business functions. For example, by outsourcing IT functions to external experts, organizations can enhance data security and reduce the risk of cybersecurity breaches. Similarly, outsourcing compliance-related tasks can ensure adherence to regulatory requirements and minimize legal and regulatory risks.

By carefully considering these factors, organizations can make informed decisions regarding outsourcing strategies, selecting the most suitable types of outsourcing and service providers that align with their specific objectives and requirements. Effective outsourcing can lead to improved operational efficiency, cost savings, access to expertise, and increased competitiveness in the global marketplace.

Case Study: Outsourcing in India

Outsourcing has played a significant role in the economic development of India, making it a prominent destination for various industries seeking cost-effective solutions and access to a skilled workforce. India's outsourcing success story is particularly notable in the information technology (IT) and business process outsourcing (BPO) sectors.

Background:

India's journey as an outsourcing hub began in the 1990s when multinational companies started leveraging its vast pool of skilled professionals, English-speaking workforce, and cost advantages. The Indian government also introduced policies and incentives to attract foreign investments in the IT and BPO sectors, further fueling its growth.

Factors Driving Outsourcing to India:

Skilled Workforce: India boasts a large pool of technically proficient and educated professionals, including engineers, computer scientists, and business graduates. This talent pool provides a strong foundation for outsourcing, especially in areas such as software development, application maintenance, and customer support.

Cost Advantage: One of the primary factors that attracted companies to outsource to India was the significant cost savings it offered. The availability of skilled professionals at a fraction of the cost compared to developed countries made India an attractive destination. This cost advantage allowed companies to optimize their operational expenses and remain competitive in the global market.

English Proficiency: English is widely spoken in India, making it easier to communicate and collaborate with clients and customers from English-speaking countries. The language proficiency of the Indian workforce has been a key enabler for customer support services, call centers, and other BPO functions.

Government Support: The Indian government recognized the potential of outsourcing as a driver of economic growth and enacted policies to support the sector. It established Special Economic Zones (SEZs) and provided tax incentives to attract foreign investments. The government also invested in infrastructure development and educational initiatives to further strengthen the outsourcing ecosystem.

Impact of Outsourcing in India:

Economic Growth: Outsourcing has contributed significantly to India's economic growth. The IT and BPO sectors have become major contributors to the country's GDP, generating employment opportunities and attracting foreign direct investments. Outsourcing has played a vital role in transforming India into a knowledge-based economy and boosting its overall development.

Job Creation: The growth of the outsourcing industry in India has resulted in the creation of millions of jobs across various sectors. IT companies, BPO firms, and service providers have set up operations in major cities like Bengaluru, Hyderabad, Chennai, and Gurugram, generating employment opportunities for a large number of professionals.

Skill Development: The demand for skilled professionals in the outsourcing industry has led to investments in education and training. Educational institutions have introduced specialized programs in IT and business services to cater to the industry's requirements. This focus on skill development has enhanced the employability of the Indian workforce and created a talent pool aligned with global industry standards.

Technology and Innovation: Outsourcing has facilitated the transfer of advanced technologies and best practices to India. Collaborations between international companies and Indian service providers have led to knowledge exchange, driving innovation and the development of new solutions. This has further strengthened India's position as a global IT and BPO hub.

Challenges and Future Outlook:

Trade and Development

Despite the successes, outsourcing in India faces challenges such as rising labor costs, increased competition from other outsourcing destinations, and concerns over data security. The industry is evolving, with a shift towards value-added services, automation, and digital transformation.

In the future, India's outsourcing industry is expected to continue evolving and diversifying beyond IT and BPO services. Emerging technologies like artificial intelligence, machine learning, and blockchain are being embraced to drive innovation and offer advanced solutions. Furthermore, the industry is exploring opportunities in niche domains such as healthcare, finance, and research and development, expanding its service offerings.

Conclusion:

India's outsourcing success story exemplifies the benefits of leveraging a skilled workforce, cost advantages, and government support in attracting foreign investments. The country's outsourcing industry has contributed significantly to economic growth, job creation, and skill development. While challenges persist, India's outsourcing sector continues to evolve, embracing new technologies and expanding its service capabilities. The case of outsourcing in India demonstrates the transformative impact outsourcing can have on a country's economy and its journey towards industrialization.

B. Offshoring:

The relocation of business operations to foreign countries. Offshoring involves the relocation of business operations, processes, or functions to foreign countries. It is distinct from outsourcing, as offshoring specifically refers to the physical relocation of operations to another country, while outsourcing involves delegating tasks to external service providers, which may or may not be located offshore.

Offshoring versus Outsourcing:

a. Offshoring: Offshoring entails establishing or moving business operations, such as manufacturing facilities, service centers, or research and development units, to a different country. This strategic decision is driven by factors such as cost advantages, access to new markets, proximity to suppliers or customers, or availability of specific resources or skills.

b. Outsourcing: Outsourcing, on the other hand, involves contracting external vendors or service providers to handle specific business functions or processes, which can be either domestic or international. Outsourcing can be a part of an offshoring strategy, where certain tasks or functions are delegated to offshore service providers, taking advantage of their expertise or cost efficiencies.

While offshoring and outsourcing can be interconnected and complementary, it is important to distinguish between the two, as offshoring involves a physical relocation of operations, whereas outsourcing focuses on contracting external providers regardless of their location.

Different forms of offshoring:

a. Manufacturing Offshoring: Manufacturing offshoring involves relocating production facilities to foreign countries. This is often driven by lower labor costs, access to specialized manufacturing capabilities, favorable regulatory environments, or proximity to raw materials or markets. For example, many companies have offshored manufacturing operations to countries like China, India, or Mexico to benefit from cost advantages and large consumer markets.

b. Services Offshoring: Services offshoring, also known as business services offshoring or knowledge process offshoring, involves relocating service-oriented functions to foreign countries. This includes various sectors such as IT services, customer support, financial services, research and development, and more. Companies opt for services offshoring to tap into talent pools, access specialized skills, and achieve cost efficiencies. Popular destinations for services offshoring include India, the Philippines, and Eastern European countries.

c. Strategic Offshoring: Strategic offshoring refers to the relocation of specific strategic functions or operations to foreign countries. This can include setting up research and development centers, innovation hubs, or regional headquarters in offshore locations. Strategic offshoring allows

companies to leverage global talent, access new markets, and enhance their competitive advantage through proximity to customers or resources.

d. Knowledge Offshoring: Knowledge offshoring involves the transfer of knowledge-intensive functions, such as research, data analysis, intellectual property management, or design services, to offshore locations. This form of offshoring allows companies to access specialized expertise, leverage time zone differences for round-the-clock operations, and foster innovation through collaboration with offshore teams.

The choice of offshoring form depends on the specific needs and objectives of the organization. Factors such as cost considerations, market dynamics, availability of skills, infrastructure, and legal and regulatory frameworks influence the decision-making process.

Offshoring offers numerous benefits, including cost savings, access to talent and resources, market expansion, and enhanced competitiveness. However, it also presents challenges such as cultural differences, regulatory compliance, language barriers, and geopolitical risks that organizations need to carefully manage to ensure successful offshoring endeavours.

Measurements of outsourcing and offshoring

Outsourcing and offshoring are strategic decisions that have a significant impact on businesses, economies, and societies. Measuring the outcomes and effects of outsourcing and offshoring activities involves both quantitative and qualitative measures to assess their overall effectiveness and implications.

Quantitative Measures:

a. Total Spending on Outsourcing: This measure quantifies the financial investment made by organizations in outsourcing activities. It includes expenditures on external service providers, contracts, and related costs. Tracking total spending on outsourcing provides insights into the scale and magnitude of outsourcing activities within an organization or industry.

b. Number of Offshored Jobs: This measure quantifies the extent of offshoring by counting the number of jobs relocated or transferred to foreign countries. It helps gauge the impact on domestic employment and provides a clear numerical indicator of the scale of offshoring activities.

c. Cost Savings: Cost savings achieved through outsourcing and offshoring can be measured by comparing the costs of in-house operations or domestic service providers to the costs associated with outsourcing or offshoring. This analysis can include factors such as labor costs, infrastructure expenses, and operational efficiencies gained through outsourcing.

d. Productivity and Efficiency Metrics: Metrics such as turnaround time, productivity ratios, and quality measures can be used to assess the impact of outsourcing and offshoring on operational performance. By comparing performance indicators before and after outsourcing or offshoring, organizations can evaluate the effectiveness of the strategy in improving efficiency and productivity.

Qualitative Measures:

a. Impact on Domestic Employment: Qualitative measures involve assessing the impact of outsourcing and offshoring on domestic employment. While quantitative measures provide numbers, qualitative measures delve into the nature of the impact, considering factors such as job creation, job displacement, skill development, and workforce composition changes. This analysis helps understand the broader implications of outsourcing and offshoring on local economies and labor markets.

b. Knowledge Transfer and Technological Upgrading: Qualitative measures also encompass assessing the transfer of knowledge, skills, and technology resulting from outsourcing and offshoring activities. This includes evaluating the extent to which local employees gain new skills and expertise through interactions with foreign partners, the acquisition of advanced technologies, and the potential for knowledge spillovers to domestic industries.

c. Innovation and Learning: Outsourcing and offshoring can foster innovation and learning within organizations. Qualitative measures can be used to evaluate the impact of outsourcing and

offshoring on innovation capabilities, such as the introduction of new products or services, adoption of best practices, and improvements in processes and operations.

d. Social and Cultural Factors: Qualitative measures may also consider social and cultural aspects impacted by outsourcing and offshoring. This includes examining changes in work culture, work-life balance, employee satisfaction, and the effects on local communities.

By combining quantitative and qualitative measures, organizations and policymakers can gain a comprehensive understanding of the outcomes and effects of outsourcing and offshoring. This holistic evaluation allows for informed decision-making, effective management of the outsourcing/offshoring process, and the identification of strategies to maximize benefits and mitigate potential drawbacks.

15.2 Costs and Benefits of Offshoring and International Outsourcing

Costs:

a. Initial Investment: Offshoring and international outsourcing require an initial investment of resources to set up the necessary infrastructure, establish communication channels, and train employees. This includes costs associated with identifying suitable offshore partners and ensuring compliance with legal and regulatory requirements.

b. Cultural and Language Differences: Working across different cultures and languages can lead to communication challenges and misunderstandings. Companies may need to invest in cross-cultural training programs and language support to overcome these barriers.

c. Data Security Risks: Offshoring and international outsourcing may expose organizations to data security risks. Sharing sensitive information and intellectual property with offshore partners raises concerns about data breaches and cyber threats. Implementing robust security measures and ensuring compliance with data protection regulations incur additional costs.

d. Dependency on External Providers: Relying heavily on offshore partners for critical business functions introduces a dependency that can become a risk factor. Organizations need to carefully manage and monitor their relationships with external providers to ensure they meet quality standards and contractual obligations consistently.

Benefits:

a. Cost Savings: One of the primary benefits of offshoring and international outsourcing is cost reduction. Companies can take advantage of lower labor costs in offshore locations, resulting in significant savings on operational expenses. For example, outsourcing to countries like India or the Philippines can yield cost savings of 30% to 70% compared to domestic operations.

b. Access to Skilled Workforce: Offshoring and international outsourcing provide access to a larger talent pool with specialized skills and expertise. This enables organizations to tap into a global talent market and access resources not readily available domestically. For instance, India has emerged as a hub for IT outsourcing due to its abundant supply of skilled software engineers.

c. Operational Efficiency: Outsourcing non-core functions or offshoring certain operations allows organizations to focus on their core competencies, leading to increased operational efficiency. By delegating routine or specialized tasks to external providers, companies can streamline their processes, improve productivity, and allocate resources strategically.

d. Scalability and Flexibility: Offshoring and international outsourcing offer scalability and flexibility to organizations. Companies can quickly scale their operations up or down as per demand, without incurring substantial costs. This agility allows businesses to respond effectively to market fluctuations and optimize their resource allocation.

e. Global Market Presence: Offshoring and international outsourcing can facilitate market expansion by establishing a presence in new countries or regions. This strategic approach enables companies to access local markets, understand consumer preferences, and adapt their products or services accordingly. It helps organizations broaden their customer base and enhance their global reach.

f. Knowledge Transfer and Innovation: Collaborating with offshore partners fosters knowledge transfer and promotes innovation. Working with diverse teams and sharing ideas can lead to the exchange of best practices, novel perspectives, and advanced technological insights. This synergy enhances organizations' ability to innovate, adapt to market trends, and develop competitive advantages.

g. Time Zone Advantage: Offshoring to locations with time zone differences allows for round-the-clock operations. Companies can provide 24/7 customer support, faster turnaround times, and uninterrupted service delivery by leveraging the time zone advantage offered by offshore locations.

It is important to note that the costs and benefits of offshoring and international outsourcing can vary depending on factors such as the nature of the business, the specific function being outsourced, the country or region chosen for offshoring, and the management of the outsourcing relationship. Organizations should conduct thorough analyses and consider these factors before deciding on an offshoring or international outsourcing strategy.

Case Study: XYZ Corporation's Offshoring Strategy

XYZ Corporation, a global technology company, decided to explore offshoring as a strategy to reduce costs and access a larger talent pool. They selected India as their offshore destination due to its reputation for a skilled workforce and cost advantages. The case study highlights the costs and benefits they experienced during this process.

Costs:

Initial Investment: XYZ Corporation had to invest in setting up the offshore operations in India. This involved costs such as establishing a physical office, IT infrastructure, and recruiting local staff. The initial investment required careful financial planning and allocation of resources.

a. Cultural and Language Differences: The cultural and language differences between the parent company and the offshore team in India posed some challenges. XYZ Corporation invested in cultural training programs and implemented communication tools and processes to bridge this gap and ensure effective collaboration.

b. Transition Period: During the transition phase, there were productivity disruptions as the offshore team familiarized themselves with XYZ Corporation's business processes and expectations. This resulted in a temporary decrease in productivity, requiring additional time and effort to align operations.

Benefits:

a. Cost Savings: By offshoring certain functions to India, XYZ Corporation experienced significant cost savings. The lower labor costs in India allowed them to reduce operational expenses without compromising on quality. They estimated a cost savings of approximately 40% compared to domestic operations.

b. Access to Skilled Workforce: Offshoring to India provided XYZ Corporation access to a highly skilled and specialized talent pool. They were able to recruit professionals with expertise in software development and data analysis, which enhanced their capabilities and efficiency in these areas.

c. Operational Efficiency: By offloading non-core functions to the offshore team in India, XYZ Corporation streamlined their operations and increased their focus on core competencies. This led to improved operational efficiency and productivity within the parent company, resulting in better resource utilization and faster time-to-market for their products.

d. Time Zone Advantage: The time zone difference between India and the parent company's location allowed XYZ Corporation to achieve round-the-clock operations. They utilized this advantage to offer extended customer support hours, ensuring timely responses to global clients and enhancing customer satisfaction.

Trade and Development

e. Innovation and Knowledge Transfer: Collaborating with the offshore team in India brought fresh perspectives and innovative ideas to XYZ Corporation. The exchange of knowledge and best practices between the onshore and offshore teams fostered a culture of innovation, driving the development of new solutions and improved processes.

f. Market Expansion: With a presence in India, XYZ Corporation gained access to the rapidly growing Indian market. They leveraged the local insights and customer preferences to tailor their products and services to the Indian market, leading to increased market share and revenue growth.

This case study highlights how XYZ Corporation successfully navigated the costs and benefits of offshoring. Despite the initial investments and challenges, they were able to achieve substantial cost savings, access a skilled workforce, enhance operational efficiency, and expand their market presence. The strategic decision to offshore to India allowed them to stay competitive in a globalized economy.

15.3 Implications of Outsourcing and Offshoring for Industrialization Strategies

Outsourcing and offshoring have significant implications for industrialization strategies. By leveraging these strategies, countries and organizations can:

a. Enhance competitiveness: Outsourcing and offshoring enable organizations to optimize costs, access specialized skills, and improve operational efficiency, enhancing their competitiveness in the global market.

b. Foster economic growth: Offshoring and international outsourcing can contribute to economic growth by attracting foreign investment, creating job opportunities, and stimulating local industries through knowledge spillovers and technological transfer.

c. Promote industrial upgrading: Offshoring and international outsourcing can facilitate industrial upgrading by enabling companies to focus on higher value-added activities and develop advanced capabilities in research, development, and innovation.

d. Address skill gaps: Offshoring allows organizations to tap into a global talent pool, addressing skill gaps and acquiring specialized knowledge that may not be readily available domestically. This contributes to the development of a skilled workforce.

15.4 Future Prospects and Challenges in International Outsourcing and Offshoring

The future of international outsourcing and offshoring is influenced by several factors:

a. Technological advancements: Emerging technologies like artificial intelligence, automation, and robotics have the potential to reshape outsourcing and offshoring dynamics, enabling more sophisticated tasks to be performed remotely and impacting the demand for certain types of jobs.

b. Changing geopolitical landscape: Shifting geopolitical factors, trade policies, and regional dynamics may influence the attractiveness of specific offshoring destinations, prompting organizations to reassess their strategies and explore alternative options.

c. Data privacy and security: With the increasing importance of data privacy and security, organizations must navigate evolving regulations and ensure robust safeguards when engaging in cross-border outsourcing and offshoring.

d.   Talent availability and skill development: The availability of skilled talent and the need for ongoing skill development will remain critical for successful offshoring and international outsourcing. Organizations must invest in upskilling and reskilling initiatives to align with evolving market demands.

e.   Ethical and social considerations: As offshoring and international outsourcing impact local employment and communities, organizations should consider the ethical and social implications, ensuring fair labor practices, sustainability, and responsible sourcing.

In conclusion, outsourcing and offshoring have become integral components of industrialization strategies. While they offer numerous benefits such as cost savings, access to talent, and operational efficiency, careful consideration of costs, measurement, and management is crucial for organizations to navigate the complex landscape of international outsourcing and offshoring successfully. By understanding the implications and addressing future challenges, organizations can leverage these strategies to drive growth and competitiveness in the global economy.

Summary

In this chapter, we explored the concepts, measurements, costs, and benefits of outsourcing and offshoring in the context of industrialization strategies. Here are the key points discussed:

a.   Outsourcing refers to the transfer of business functions to external providers, while offshoring involves relocating business operations to foreign countries. Types of outsourcing include IT outsourcing and business process outsourcing, driven by factors such as cost reduction and access to expertise.

b.   Offshoring encompasses various forms, including manufacturing and services, offering advantages such as cost savings and access to skilled talent. Measurements of outsourcing and offshoring include quantitative measures like total spending and the number of offshored jobs, as well as qualitative measures like impact on domestic employment and knowledge transfer.

c.   The costs of offshoring and international outsourcing include initial investment, cultural and language barriers, data security risks, and dependency on external providers. The benefits of offshoring and international outsourcing include cost savings, access to a skilled workforce, operational efficiency, scalability, global market presence, knowledge transfer, and innovation opportunities.

Keywords

- Outsourcing
- Quantitative Measures
- Qualitative Measures
- International Offshoring
- Language Barriers
- Data Security

Self Assessment

1)   Which of the following best describes outsourcing?

A.   Relocating business operations to foreign countries

B.   Transferring business functions to external providers

C. Collaborating with offshore partners for innovation

D. Investing in cross-cultural training programs

2) Offshoring differs from outsourcing in that offshoring specifically involves:

A. Lowering operational costs

B. Accessing a larger talent pool

C. Relocating business operations to foreign countries

D. Transferring non-core functions to external providers

3) One of the primary benefits of offshoring and international outsourcing is:

A. Increased domestic employment opportunities

B. Enhanced operational efficiency

C. Higher data security risks

D. Reduced dependence on external providers

4) Which factor is commonly considered a driving force behind outsourcing decisions?

A. Access to specialized skills and expertise

B. Data security risks

C. Cultural and language differences

D. Increased initial investment requirements

5) The time zone advantage of offshoring allows organizations to:

A. Achieve round-the-clock operations

B. Increase initial investment requirements

C. Reduce access to a skilled workforce

D. Limit scalability and flexibility

6) The main cost associated with offshoring and international outsourcing is:

A. Data security risks

B. Initial investment in infrastructure

C. Dependency on external providers

D. Cultural and language barriers

7) Offshoring and international outsourcing can contribute to economic growth by:

A. Creating job opportunities domestically

B. Restricting access to global markets

C. Stifling innovation and knowledge transfer

D. Attracting foreign investment and stimulating local industries

8) What is one potential future challenge in the field of international outsourcing and offshoring?

A. Decreasing importance of data privacy and security

B. Declining availability of skilled talent

C. Limited market expansion opportunities

D. Stable geopolitical landscape

9) Which of the following is a benefit of offshoring and international outsourcing?

A. Limited access to specialized skills

B. Higher operational costs

C. Enhanced market expansion opportunities

D. Decreased scalability and flexibility

10) The measurement of outsourcing and offshoring can include:

A. Quantitative measures such as total spending on outsourcing

B. Qualitative measures such as impact on domestic employment

C. Both quantitative and qualitative measures

D. None of the above

11) What is one potential challenge related to cultural and language differences in international outsourcing?

A. Increased collaboration and communication

B. Enhanced productivity and efficiency

C. Misunderstandings and communication barriers

D. Seamless integration of teams and processes

12) Which of the following is a benefit of offshoring and international outsourcing for organizations?

A. Limited access to a skilled workforce

B. Reduced operational efficiency

C. Access to a larger talent pool

D. Higher initial investment requirements

13) Offshoring allows organizations to focus on their core competencies and:

A. Enhance operational efficiency

B. Increase cultural and language barriers

C. Reduce reliance on external providers

D. Limit market expansion opportunities

14) Which factor contributes to cost savings in offshoring and international outsourcing?

A. Higher labor costs in offshore locations

B. Reduced access to specialized skills

C. Limited scalability and flexibility

D. Lower labor costs in offshore locations

15) The future of international outsourcing and offshoring is influenced by:

A. Advancements in technology

B. Decreased importance of talent availability

C. Stable geopolitical landscape

D. Limited data privacy concerns

16) Offshoring and international outsourcing can lead to innovation and knowledge transfer through:

A. Limited exchange of ideas and best practices

B. Collaboration between onshore and offshore teams

C. Stagnation of research and development

D. Reduced access to global markets

17) The primary objective of offshoring and international outsourcing is to:

A. Increase operational costs

B. Limit access to specialized skills

C. Enhance market expansion opportunities

D. Optimize business functions and processes

18) What is one potential implication of offshoring and international outsourcing for domestic employment?

A. Increased job creation opportunities

B. Decreased job displacement

C. Limited impact on the labor market

D. Higher dependency on external providers

19) How can organizations mitigate data security risks associated with offshoring and international outsourcing?

A. Emphasize cultural and language barriers

B. Reduce communication and collaboration

C. Implement robust safeguards and protocols

D. Increase dependency on external providers

20) Responsible sourcing and sustainability considerations in offshoring and international outsourcing involve:

A. Ignoring ethical and social implications

B. Promoting fair labor practices and sustainability

C. Prioritizing cost savings over responsible practices

D. Limiting market expansion opportunities

Answers for Self Assessment

1.	B	2.	C	3.	B	4.	A	5.	A
6.	B	7.	D	8.	B	9.	C	10.	C
11.	C	12.	C	13.	A	14.	D	15.	A
16.	B	17.	D	18.	D	19.	C	20.	B

Review Questions

1. How can organizations effectively measure the costs and benefits of offshoring and international outsourcing? What are some key quantitative and qualitative metrics that can be used?

2. What are the main factors that drive companies to make the decision to outsource or offshore certain business functions? How do these factors vary across industries and regions?

3. How can companies manage the cultural and language differences that may arise when engaging in international outsourcing or offshoring? What strategies and best practices can be implemented to overcome these challenges?

4. What are the potential risks and challenges associated with data security when outsourcing or offshoring to foreign countries? How can organizations mitigate these risks and ensure the protection of sensitive information?

5. How does offshoring differ from outsourcing, and what are the specific advantages and disadvantages of each approach? Under what circumstances would one approach be preferred over the other?

6. What are the implications of offshoring and international outsourcing for domestic employment? How do these practices impact job creation and job displacement in the home country?

7. How can organizations effectively manage their relationships with external providers when engaging in outsourcing or offshoring? What strategies can be implemented to ensure quality control, adherence to contractual obligations, and a productive partnership?

8. How does offshoring and international outsourcing contribute to the overall industrialization strategies of countries? What are the potential economic and developmental benefits that can be derived from these practices?

9. What are the potential future prospects and challenges in the field of international outsourcing and offshoring? How might technological advancements, changing geopolitical dynamics, and evolving regulatory landscapes shape the future of these practices?

10. What ethical considerations should organizations take into account when engaging in offshoring and international outsourcing? How can companies ensure responsible sourcing, fair labor practices, and sustainability in their global operations?

Further Readings

- "The World Is Flat: A Brief History of the Twenty-First Century" by Thomas L. Friedman.

- The International Association of Outsourcing Professionals (IAOP) - Website: https://www.iaop.org/
- Deloitte Global Outsourcing Survey - Article: https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Strategy/gx-strategy-deloitte-global-outsourcing-survey.pdf.
- The Conference Board - Global Business Outsourcing and Offshoring Council - Website: https://www.conference-board.org/topics/strategy/outsourcing-and-offshoring.
- McKinsey & Company - Global Institute: Offshoring and Outsourcing - Article: https://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/the-offshoring-of-engineering-offshoring-and-outsourcing.

Unit 16: Exports Processing Zones

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Summary

Keywords

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Further Readings

Objectives

- Understand the procedure of export procession zones
- Analyze the importance and policy recommendations of EPZ's in developing nations

Introduction

Exports Processing Zones (EPZs), also known as free trade zones, industrial parks, or special economic zones, are designated areas within a country that offer various incentives and benefits to attract foreign direct investment (FDI) and promote export-oriented industrialization. EPZs are designed to provide a favorable environment for businesses by offering tax incentives, streamlined regulations, infrastructure development, and access to a skilled workforce. The purpose of EPZs is to stimulate economic growth, create employment opportunities, boost export revenues, and attract technology transfer. The origins of EPZs can be traced back to the 1960s, with the establishment of the Shannon Free Zone in Ireland. However, EPZs gained significant prominence in the 1970s when countries like Taiwan and Mauritius embraced this development strategy. Since then, EPZs have proliferated globally, driven by the desire of countries to attract foreign investment, diversify their economies, and stimulate industrialization. Over time, EPZs have evolved in terms of their design, objectives, and scope. Initially focused on labor-intensive manufacturing industries, EPZs have expanded to encompass a wide range of sectors, including high-tech industries, services, and knowledge-based activities.

This chapter aims to provide a comprehensive overview of Exports Processing Zones (EPZs) as a development strategy and analyze their impact on welfare in developing countries. The chapter will explore the definition and purpose of EPZs, tracing their historical background and evolution. It will highlight the significance of EPZs as a development strategy, emphasizing their role in promoting economic growth, export diversification, employment generation, and technology transfer. The chapter will delve into the economic benefits of EPZs, such as attracting foreign direct investment, creating job opportunities, promoting export-led growth, and facilitating technological advancement. Moreover, it will examine the social and welfare implications of EPZs, including their effects on workers' rights and labor conditions, income inequality, gender dynamics, skill development, and social and environmental sustainability. The chapter will also provide case

studies of EPZs in various developing countries to illustrate their implementation and outcomes. Furthermore, the chapter will address the challenges and criticisms associated with EPZs, such as labor exploitation, dependence on foreign investment, limited linkages with the domestic economy, and environmental concerns. Finally, the chapter will present policy recommendations and offer insights into the future outlook of EPZs as a development strategy.

16.1 Development Strategy: Exports Processing Zones (EPZs)

Conceptual Framework of EPZs

Exports Processing Zones (EPZs) are a development strategy based on the establishment of designated areas within a country that offer a range of incentives and benefits to attract foreign direct investment (FDI) and promote export-oriented industrialization. The conceptual framework of EPZs revolves around creating an environment conducive to economic growth and development. EPZs are designed to address various factors that hinder investment and export activities, such as regulatory barriers, infrastructure deficiencies, and limited access to skilled labor.

Features and Characteristics of EPZs

EPZs possess several distinct features and characteristics that set them apart from the rest of the national economy. Understanding these features is crucial to comprehending the functioning and impact of EPZs. Below are the key features and characteristics of EPZs:

1. Geographical Demarcation: EPZs are geographically delimited areas within a country that are designated for specific economic activities. These zones are typically located near ports, airports, or major transportation hubs, providing strategic advantages for import-export activities and logistics.

2. Incentives and Benefits: EPZs offer a range of incentives and benefits to attract investors and businesses. These incentives can include tax breaks, customs duty exemptions, reduced or simplified regulations and bureaucratic procedures, and preferential access to utilities and infrastructure. The aim is to reduce the cost of doing business and create a more attractive investment climate.

3. Infrastructure Development: EPZs often feature well-developed infrastructure tailored to the needs of businesses operating within the zone. This includes industrial parks, factory spaces, warehouses, power supply, water and sanitation facilities, roads, and telecommunications infrastructure. The presence of such infrastructure provides a conducive environment for businesses to operate efficiently.

4. Labor Availability and Skilled Workforce: EPZs typically offer access to a readily available labor force, ranging from semi-skilled to skilled workers. These zones often provide training programs to enhance the skills of the local workforce or attract migrant workers. The availability of a skilled labor force is critical for industries that require specific technical expertise or specialized knowledge.

5. Export Orientation: EPZs are primarily designed to promote export-oriented industrialization. Companies operating within EPZs are expected to focus on producing goods and services for the international market. This export orientation enables countries to earn foreign exchange, diversify their export base, and reduce reliance on a single industry or market.

6. Clustering and Linkages: EPZs facilitate the clustering of industries and the formation of supply chains and value-added networks. The proximity of related industries within the zone encourages collaboration, knowledge sharing, and the development of specialized expertise. This clustering effect can enhance productivity, innovation, and competitiveness within the EPZ.

7. Regulatory Flexibility: EPZs often provide a more flexible regulatory framework compared to the national economy. Governments may introduce special laws and regulations that govern activities within the EPZs, allowing for faster decision-making, streamlined processes, and greater ease of doing business. This regulatory flexibility aims to attract investment and foster a business-friendly environment.

8. Specialized Services and Support: EPZs typically offer specialized services to support the operations of businesses within the zone. These services can include customs facilitation, legal and advisory services, financial services, logistics support, and technical assistance. By providing such support, EPZs aim to address the specific needs and challenges faced by businesses in international trade and investment.

9. Economic Zones with Multiple Functions: While EPZs primarily focus on manufacturing and exports, some EPZs have evolved to incorporate additional functions. These can include research and development (R&D) centers, technology parks, innovation hubs, and service-oriented activities. Such diversification expands the scope of economic activities within the EPZs and promotes knowledge-intensive industries.

By combining these features and characteristics, EPZs aim to create a conducive environment for businesses to thrive, attract foreign investment, promote export-led growth, and drive economic development in the host country. The specific configuration and emphasis on each feature may vary depending on the objectives and strategies adopted by the country establishing the EPZ.

Types of EPZs

EPZs can take on different forms, each with its own specific characteristics and objectives. The three primary types of EPZs are Free Trade Zones (FTZs), Industrial Parks, and Special Economic Zones (SEZs). Understanding the distinctions between these types is crucial in comprehending the diverse approaches countries take in implementing EPZs. Here are the details of each type:

Free Trade Zones (FTZs):

Free Trade Zones, also known as Free Zones or Free Ports, are EPZs primarily focused on facilitating international trade by eliminating or reducing trade barriers within the designated zone. The key features of FTZs include:

a. Tariff and Customs Benefits: FTZs often provide exemptions or reductions in customs duties, tariffs, and import/export taxes. This allows companies operating within the zone to import raw materials and components duty-free, encouraging cost-effective production and export competitiveness.

b. Simplified Customs Procedures: FTZs typically offer simplified customs procedures, allowing for faster clearance of goods and reduced bureaucratic processes. This streamlined approach facilitates efficient international trade and logistics operations.

c. Foreign Ownership and Trade Liberalization: FTZs may allow foreign investors to have full ownership of companies within the zone, encouraging foreign direct investment. Additionally, they often have liberalized trade policies that promote open trade and attract multinational corporations.

Examples of FTZs include Jebel Ali Free Zone in Dubai, United Arab Emirates, and Colon Free Trade Zone in Panama.

Industrial Parks: Industrial Parks are EPZs that focus on providing dedicated infrastructure and facilities for manufacturing activities. The key features of Industrial Parks include:

1. Purpose-Built Infrastructure: Industrial Parks are designed to cater specifically to manufacturing industries, offering well-developed infrastructure, including factory

spaces, utilities, transportation networks, and supporting services. This infrastructure is tailored to meet the needs of industrial production and operational efficiency.

2. Clustering and Value Chains: Industrial Parks promote the clustering of related industries, encouraging the formation of supply chains and value-added networks. The close proximity of companies within the park facilitates collaboration, knowledge sharing, and synergy among businesses.

3. Industry-Specific Focus: Industrial Parks may specialize in specific industries or sectors, such as automotive, electronics, or textiles. This specialization enables the development of industry-specific expertise, promotes innovation, and enhances competitiveness.

Examples of Industrial Parks include the Suzhou Industrial Park in China and the Jurong Industrial Estate in Singapore.

Special Economic Zones (SEZs):

Special Economic Zones are comprehensive EPZs that encompass a wide range of economic activities, including manufacturing, services, and trade. SEZs are often established to promote economic development in specific regions or sectors. The key features of SEZs include:

1. Diversified Economic Activities: SEZs allow for a broader range of economic activities compared to other EPZ types. They can include manufacturing, services (such as finance, IT, and tourism), research and development, and innovation-driven industries. SEZs provide a platform for diversifying the economy and promoting a balanced industrial base.

2. Policy Flexibility and Incentives: SEZs often have more flexible policies and regulatory frameworks compared to the rest of the country. They offer a range of incentives, such as tax breaks, investment subsidies, preferential land leases, and streamlined administrative procedures. These incentives attract investment, promote entrepreneurship, and foster a business-friendly environment.

3. Integrated Development: SEZs aim for comprehensive development by combining infrastructure development, industrial activities, urban planning, and social amenities. They focus on creating sustainable environments that support economic growth and improve the quality of life for residents.

Examples of SEZs include the Shenzhen Special Economic Zone in China, the Dubai International Financial Centre in the UAE, and the Gujarat International Finance Tec-City (GIFT City) in India.

It's important to note that the categorization of EPZs into these types is not mutually exclusive, and there can be overlaps or combinations of features and characteristics in practice. Countries may adopt different models or customize their EPZs based on their specific objectives, local conditions, and development strategies.

Rationale for Establishing EPZs in Developing Countries

Developing countries often establish EPZs as a strategic approach to address specific developmental challenges and unlock economic growth potential. The rationale for establishing EPZs includes:

1. Attracting Foreign Direct Investment (FDI): EPZs are designed to attract FDI by providing a favorable business environment with incentives that reduce the cost of operations and increase the returns on investment. This influx of FDI brings capital, technology,

managerial expertise, and access to global markets, which can contribute to industrial development and economic growth. For example, Shenzhen in China and the Iskandar Malaysia Industrial Park have successfully attracted significant FDI inflows through their EPZs, leading to rapid economic transformation.

2. Promoting Export-led Growth: EPZs focus on export-oriented industrialization, aiming to diversify the economy away from traditional sectors and create a competitive export base. By providing preferential trade arrangements, tax incentives, and infrastructure support, EPZs enable companies to produce goods and services for international markets. This export promotion strategy can enhance foreign exchange earnings, improve trade balances, and foster economic resilience. For instance, the EPZs in Mauritius and Bangladesh have played a pivotal role in boosting textile and apparel exports, contributing significantly to their economic growth.

3. Creating Employment Opportunities: EPZs are known for their potential to generate employment, particularly in labour-intensive industries. The establishment of EPZs can lead to the creation of job opportunities for the local workforce, addressing unemployment and poverty challenges. Countries like Vietnam and Bangladesh have experienced substantial employment growth in their EPZs, providing income and livelihood opportunities for thousands of workers, including women and rural migrants.

4. Technological Upgrading and Transfer: EPZs facilitate the transfer of technology, knowledge, and managerial skills from multinational corporations (MNCs) to domestic firms. This transfer can occur through joint ventures, collaborations, and supply chain linkages between MNCs and local enterprises operating within EPZs. The adoption of advanced technologies and management practices can enhance productivity, promote innovation, and develop local capabilities. For example, the EPZs in South Korea played a critical role in transferring technological know-how and promoting industrial upgrading during the country's rapid economic development.

5. Infrastructure Development and Cluster Formation: EPZs often provide well-developed infrastructure, including industrial parks, roads, ports, and utilities, which may be lacking in other areas of the country. This infrastructure development not only supports the operations of firms within the EPZs but can also have positive spillover effects on neighbouring regions. EPZs also encourage the formation of industry clusters, where related industries and supporting services co-locate, creating synergies, and promoting knowledge sharing and innovation.

In summary, the rationale for establishing EPZs in developing countries encompasses attracting FDI, promoting export-led growth, creating employment opportunities, facilitating technological transfer, and fostering infrastructure development and cluster formation. These objectives are driven by the aspiration to accelerate economic development, diversify the economy, and improve welfare in the host countries.

16.2   Economic Benefits of EPZs

EPZs, or Export Processing Zones, have been recognized for their potential to generate various economic benefits for host countries. These benefits arise from the strategic incentives and supportive infrastructure provided within the zones. Let's explore the economic benefits of EPZs in detail, supported by real-life facts and examples:

1.   **Foreign Direct Investment (FDI) Inflows:**

EPZs play a crucial role in attracting foreign direct investment. By offering a favorable business environment and incentives, EPZs can significantly increase FDI inflows. For instance: China's

Shenzhen Special Economic Zone: Shenzhen, initially established as an EPZ, transformed into a global economic powerhouse attracting substantial FDI. Since its inception in 1980, Shenzhen has attracted over $300 billion in FDI, fostering economic growth and technological advancement. Mauritius EPZs: Mauritius established EPZs to diversify its economy and attract FDI. As a result, the country experienced a significant increase in FDI, with over 9,000 companies registered in its EPZs, contributing to economic growth and job creation.

2. Export Expansion and Trade Balance Improvement:

EPZs promote export-oriented industrialization, leading to increased exports and improved trade balances. This can be observed in the following examples: Bangladesh EPZs: Bangladesh's EPZs, particularly in the textile and apparel sector, have contributed significantly to the country's export growth. The EPZs have enabled Bangladesh to become the world's second-largest exporter of ready-made garments, playing a vital role in improving its trade balance. Mexico's Maquiladoras: Mexico's maquiladora program, which operates as an EPZ, has propelled the country's export performance. The maquiladoras, specializing in manufacturing and assembly operations, have been instrumental in boosting Mexico's exports and strengthening its trade relationships, particularly with the United States.

3. Job Creation and Poverty Alleviation:

EPZs generate employment opportunities, contributing to poverty reduction and socioeconomic development. Examples include: Vietnam EPZs: Vietnam's EPZs have been instrumental in job creation, particularly in labor-intensive industries such as textiles, electronics, and footwear. EPZs in Vietnam employ millions of workers, providing income and livelihood opportunities, particularly for rural migrants and women. Kenya's EPZ Program: Kenya's EPZ program has significantly contributed to job creation and poverty reduction. The EPZs, particularly in the textile and horticulture sectors, have created thousands of employment opportunities, leading to improved standards of living and socioeconomic development.

4. Technological Transfer and Industrial Upgrading:

EPZs facilitate the transfer of technology, knowledge, and managerial expertise from multinational corporations (MNCs) to domestic firms, promoting industrial upgrading and technological advancement. Real-life examples include: South Korea's EPZs: South Korea's EPZs played a pivotal role in the country's rapid industrialization and technological progress. The EPZs facilitated the transfer of advanced technologies and management practices, leading to industrial upgrading and the emergence of globally competitive industries. Costa Rica's High-Tech Manufacturing: Costa Rica's EPZs have attracted high-tech manufacturing companies, particularly in the electronics and medical device sectors. These companies have brought advanced technologies and expertise to the country, fostering technological transfer and the development of a knowledge-based economy.

5. Infrastructure Development and Regional Spillover Effects:

EPZs often stimulate infrastructure development, not only within the zones but also in the surrounding regions. This leads to regional economic growth and development. Examples include: Malaysia's Iskandar Malaysia Industrial Park: The Iskandar Malaysia Industrial Park, established as an EPZ, has attracted significant investments in manufacturing and services sectors. This has resulted in infrastructure development, including transportation networks, utilities, and residential areas, contributing to regional economic growth and urban development. Jordan's Qualifying Industrial Zones (QIZs): Jordan's QIZs, operating as EPZs, have spurred infrastructure development and economic growth in various regions. The establishment of QIZs led to the development of industrial zones, housing projects, and supporting infrastructure, creating a positive spillover effect on neighbouring areas.

These real-life examples demonstrate the economic benefits of EPZs, including increased FDI inflows, export expansion, job creation, technological transfer, and infrastructure development. However, it's important to note that the success of EPZs in generating these benefits depends on various factors, including effective governance, supportive policies, skilled workforce, and sound infrastructure planning.

16.3 Social and Welfare Implications of EPZs

EPZs, or Export Processing Zones, can have social and welfare implications for the host countries. While EPZs are known for their economic benefits, it is essential to assess their impact on social factors and the well-being of workers and communities. Let's delve into the social and welfare implications of EPZs in detail:

a. Working Conditions and Labor Rights: EPZs have faced scrutiny for their working conditions and labor rights practices. Some key considerations include: Working Conditions: EPZ workers often face long working hours, low wages, lack of job security, and limited access to social protection. The drive for cost competitiveness can lead to substandard working conditions within EPZs.

A.1 Labor Rights: Workers' rights, such as freedom of association, collective bargaining, and fair treatment, can be compromised in EPZs. Restrictions on labor unions and weak enforcement of labor laws may hinder workers' ability to voice their concerns and negotiate for better conditions.

b. Gender and Social Inequality: EPZs can perpetuate or exacerbate existing gender and social inequalities. Some aspects to consider are:

b.1 Gender Inequality: Women comprise a significant portion of the EPZ workforce, often employed in low-skilled, labor-intensive industries. They may face gender-based discrimination, wage disparities, and limited opportunities for career advancement within the zones.

b.2 Social Inequality: EPZs may contribute to social disparities, as the benefits generated by EPZs may not reach marginalized communities outside the zones. This can lead to regional imbalances and unequal distribution of economic opportunities and benefits.

c. Social Protection and Welfare:

EPZ workers and their families may face challenges in accessing social protection and welfare benefits. Key factors include:

c.1 Social Security Coverage: EPZ workers may have limited access to social security coverage, including healthcare, pensions, and unemployment benefits. Inadequate social protection systems can leave workers vulnerable to economic shocks and social risks.

c.2 Community Development: The social welfare impact of EPZs extends beyond workers to the surrounding communities. The presence of EPZs can contribute to urbanization, population influx, and strain on local resources and infrastructure. Adequate investments in community development and social infrastructure are necessary to mitigate potential negative effects.

d. Skill Development and Human Capital:

EPZs can have both positive and negative implications for skill development and human capital. Consider the following:

d.1 Skills Development: EPZs may provide opportunities for skills training and acquisition, particularly in industries with technological advancements. This can enhance workers' employability and contribute to their long-term career prospects.

d.2 Brain Drain and Skill Repatriation: However, EPZs may also face challenges with skill retention and brain drain, where skilled workers migrate to higher-paying jobs or opportunities abroad. Balancing skill development within EPZs and retaining talent within the host country becomes crucial.

e. Social Dialogue and Stakeholder Engagement:

EPZs can benefit from inclusive social dialogue and stakeholder engagement to address social and welfare concerns. Key considerations include:

e.1 Social Dialogue: Establishing platforms for meaningful social dialogue and engagement between workers, employers, government, and civil society organizations is crucial. This can help address labor rights, social protection, and working conditions concerns in EPZs.

e.2 Corporate Social Responsibility (CSR): Promoting responsible business practices through CSR initiatives within EPZs can contribute to social welfare. This includes adherence to labor standards, environmental sustainability, and community engagement.

Efforts to address these social and welfare implications require collaboration between governments, businesses, labor unions, civil society organizations, and international stakeholders. It is essential to prioritize worker rights, social protection, and inclusive development alongside the economic benefits that EPZs offer.

Case Study: Bangladesh EPZs

Bangladesh has implemented Export Processing Zones (EPZs) as a key development strategy, focusing primarily on the textile and garment industry. The EPZs in Bangladesh, such as the Dhaka EPZ and Chittagong EPZ, have played a vital role in driving economic growth, export expansion, and job creation. The EPZs in Bangladesh have attracted significant foreign direct investment (FDI) from multinational corporations seeking to take advantage of the country's low-cost labor and preferential trade agreements. These investments have led to the establishment of numerous textile and garment factories within the EPZs, making Bangladesh the second-largest exporter of ready-made garments globally.

One of the primary benefits of the EPZs in Bangladesh is the creation of employment opportunities. The textile and garment industry in the EPZs employs millions of workers, predominantly women from rural areas. These jobs have provided income and livelihood opportunities for many individuals and have contributed to poverty reduction in the country. Moreover, the EPZs have been instrumental in driving export growth. The preferential trade agreements, such as the Generalized System of Preferences (GSP) and the Everything But Arms (EBA) initiative, have allowed duty-free and quota-free access to major export markets, including the European Union and the United States. This trade advantage, coupled with the manufacturing capabilities within the EPZs, has enabled Bangladesh to become a global hub for textile and garment exports. Despite the positive impact, EPZs in Bangladesh have faced criticism and challenges. Concerns have been raised regarding working conditions, labor rights, and social protection for workers within the EPZs. Issues such as long working hours, low wages, and lack of unionization rights have been raised by labor advocacy groups. Efforts have been made to address these concerns by improving labor standards, promoting worker safety, and enhancing social dialogue. In recent years, the government of Bangladesh has taken steps to upgrade the infrastructure and facilities within the EPZs to attract more investment and promote sustainable growth. This includes the establishment of newer EPZs in different regions of the country, such as the Bangabandhu Sheikh Mujib Shilpa Nagar in Chattogram, with a focus on diversifying industries beyond textiles and garments. Overall, the EPZs in Bangladesh have played a significant role in driving economic development, export expansion, and job creation. While challenges exist in terms of labor rights and working conditions, efforts are being made to address these issues and ensure that the social welfare of workers is improved within the EPZs.

16.4 Challenges and Criticisms of EPZs

EPZs, or Export Processing Zones, have faced several challenges and criticisms over the years. While they offer various economic benefits, it is important to acknowledge the concerns and drawbacks associated with these zones. Let's explore the challenges and criticisms of EPZs in detail:

1. **Working Conditions and Labor Rights:**

EPZs have been criticized for poor working conditions and violations of labor rights. Some of the specific challenges include:

a.1 Long Working Hours: EPZs often require workers to work long hours, exceeding legal limits, to meet production targets and maintain cost competitiveness. This can lead to fatigue, stress, and a lack of work-life balance.

a.2 Low Wages: EPZs are known for their low-wage employment, with workers often receiving minimal compensation for their labor. This can perpetuate poverty and hinder social mobility.

a.3 Limited Unionization Rights: EPZ workers may face challenges in exercising their right to form labor unions and engage in collective bargaining. Restrictions on union activities within EPZs can limit workers' ability to voice their concerns and negotiate for improved working conditions.

a.4 Lack of Social Protection: Workers in EPZs may have limited access to social protection benefits such as healthcare, pensions, and unemployment insurance. This leaves them vulnerable to economic shocks and social risks.

2. Social and Gender Inequality:

EPZs can contribute to social and gender inequality within host countries. Some key concerns include:

b.1 Gender-Based Discrimination: Women make up a significant portion of the EPZ workforce, often employed in low-skilled and poorly paid positions. They may face discrimination, limited career advancement opportunities, and gender-based violence or harassment.

b.2 Social Disparities: The benefits generated by EPZs may not extend to marginalized communities outside the zones, leading to regional imbalances and unequal distribution of economic opportunities. This can exacerbate social inequality within the host country.

3. Environmental Impact:

EPZs can have adverse environmental consequences, including:

c.1 Pollution: Industries within EPZs may contribute to air, water, and soil pollution, particularly when environmental regulations and monitoring mechanisms are weak. Improper waste management practices and excessive resource consumption can harm the local ecosystem and community health.

c.2 Natural Resource Depletion: EPZs often require significant amounts of water, energy, and raw materials. Unsustainable resource extraction and consumption can deplete natural resources and impact local ecosystems.

4. Dependency on Foreign Investment:

EPZs heavily rely on foreign direct investment (FDI) for their operations. This dependence can have potential drawbacks:

d.1 Economic Vulnerability: Overreliance on foreign investment can make EPZs vulnerable to global economic fluctuations and the shifting priorities of multinational corporations. Economic downturns or changes in investment patterns can impact the stability and sustainability of EPZs.

d.2 Limited Linkages to the Local Economy: EPZs may have limited linkages and spillover effects on the broader local economy. This can hinder the development of domestic industries and limit opportunities for local suppliers and service providers.

5. Lack of Technology Transfer and Innovation:

While EPZs can attract foreign investment, the extent of technology transfer and innovation may vary. Some challenges include:

e.1 Limited Technology Spillover: EPZs often focus on labor-intensive industries, where the transfer of advanced technologies and knowledge may be limited. This can hinder the development of domestic technological capabilities and innovation.

e.2 Skill Repatriation: EPZs may face challenges in retaining skilled workers within the host country, leading to a "brain drain" effect. Skilled workers may seek opportunities abroad or move to other sectors with better prospects, limiting the potential for knowledge and skill development.

Addressing these challenges and criticisms requires concerted efforts from governments, businesses, civil society organizations, and international stakeholders. It includes implementing and enforcing labor standards, promoting social protection measures, enhancing environmental regulations, fostering inclusive growth, and strengthening linkages between EPZs and the broader economy.

16.5 Policy Recommendations and Future Outlook

To address the challenges and criticisms associated with EPZs and enhance their positive impact, several policy recommendations can be considered:

1.   Strengthen Labor Rights and Working Conditions:

Enforce labor laws and regulations within EPZs to ensure fair working conditions, reasonable working hours, and adequate wages. Facilitate the formation of labor unions and promote collective bargaining rights for workers within EPZs. Provide training and awareness programs for workers to enhance their knowledge of labor rights and empower them to assert their rights.

2.   **Enhance Social Protection**:

Extend social protection coverage to workers in EPZs, including access to healthcare, pensions, and unemployment benefits. Establish mechanisms for monitoring and enforcing social protection measures within EPZs. Collaborate with international organizations and stakeholders to develop guidelines and best practices for social protection in EPZs.

3.   Promote Gender Equality and Social Inclusion:

Implement policies and programs to address gender-based discrimination and promote gender equality within EPZs. Provide equal opportunities for women's employment, skills development, and career advancement within EPZs. Foster inclusive growth by ensuring that the benefits of EPZs extend to marginalized communities outside the zones.

4.   Strengthen Environmental Sustainability:

Enforce strict environmental regulations within EPZs and promote sustainable production practices. Encourage the adoption of green technologies and resource-efficient processes in EPZ industries. Invest in environmental monitoring and mitigation measures to minimize pollution and ecological **impact.**

5.   Foster Technology Transfer and Innovation:

Promote partnerships and collaborations between EPZs and local research institutions and universities to facilitate technology transfer and innovation. Encourage multinational corporations within EPZs to invest in research and development activities and knowledge-sharing initiatives with domestic entities. Develop skill development programs to enhance the technical capabilities of the local workforce and promote a culture of innovation.

Future Outlook:

The future outlook for EPZs will depend on various factors, including global economic trends, technological advancements, and policy developments. Some key considerations for the future of EPZs are:

A.   Diversification of Industries:

EPZs can evolve beyond traditional sectors such as textiles and garments and diversify into higher value-added industries. This can include electronics, pharmaceuticals, information technology, and other knowledge-intensive sectors, which can contribute to technological innovation, skill development, and higher wages.

B.   Sustainable Development:

There is an increasing focus on promoting sustainable development within EPZs. This includes adopting environmentally friendly practices, integrating renewable energy sources, and implementing circular economy principles to reduce waste and resource consumption.

C.   Digital Transformation:

Advancements in digital technologies offer opportunities for EPZs to embrace automation, artificial intelligence, and data analytics. This can enhance productivity, improve supply chain management, and promote the development of high-tech industries within the zones.

D. Regional Integration:

EPZs can benefit from increased regional integration and collaboration. This includes fostering trade partnerships, establishing common standards and regulations, and promoting the seamless movement of goods, services, and labor within regional economic communities.

E. Inclusive Growth:

Future efforts should focus on ensuring that the benefits generated by EPZs are more inclusive and reach a broader segment of the population. This includes addressing social inequalities, promoting decent work, and extending the positive impact of EPZs beyond the zones to the surrounding communities.

In conclusion, by addressing the challenges, implementing effective policies, and embracing sustainable and inclusive development practices, EPZs can continue to play a significant role in driving economic growth, attracting investment, and promoting job creation in the future.

Summary

In this chapter, we have explored Export Processing Zones (EPZs) as a development strategy. We began by discussing the conceptual framework and purpose of EPZs, followed by their historical background and evolution. We examined the features and characteristics of EPZs, including the different types such as Free Trade Zones, Industrial Parks, and Special Economic Zones. Furthermore, we delved into the economic benefits of EPZs, highlighting real-life facts and examples. We also discussed the social and welfare implications of EPZs, considering the challenges and criticisms associated with them. Finally, we examined case studies of EPZs in developing countries, such as Bangladesh.

EPZs have proven to be an effective development strategy in many developing countries. They have contributed to economic growth, export expansion, job creation, and attracting foreign direct investment (FDI). EPZs have provided opportunities for countries to integrate into global supply chains, enhance their industrial capabilities, and diversify their economies. However, challenges exist, including labor rights issues, environmental concerns, and social inequalities. Addressing these challenges and ensuring inclusive and sustainable development within EPZs is crucial for their long-term success.

The findings and insights from this chapter have several implications for policy, practice, and future research:

Policy Implications:

a) Governments should enforce labor laws, promote decent working conditions, and ensure social protection measures for workers within EPZs.

b) Environmental regulations and sustainability practices should be strengthened to minimize the negative impact of EPZs on the environment.

c) Policies should promote gender equality, social inclusion, and equitable distribution of benefits within EPZs.

d) Governments should foster technology transfer, innovation, and skills development within EPZs to enhance their long-term competitiveness and productivity.

Practice Implications:

a) EPZ authorities and companies operating within the zones should prioritize the welfare and well-being of workers, ensuring fair wages, safe working conditions, and opportunities for skill development.

b) Companies should adopt sustainable production practices, invest in environmentally friendly technologies, and promote resource efficiency within EPZs.

c) Stakeholders should collaborate to develop and implement social responsibility initiatives, such as training programs, healthcare facilities, and community development projects, to benefit both workers and the surrounding communities.

Future Research Directions:

a) Further research is needed to assess the long-term social and economic impacts of EPZs, including their effects on poverty reduction, income inequality, and regional development.

b) Comparative studies across different countries and regions can provide insights into the diverse experiences and outcomes of EPZs.

c) Research should focus on identifying best practices and policy recommendations to address the challenges and criticisms associated with EPZs, particularly in terms of labor rights, social welfare, and environmental sustainability.

d) Future studies should explore the potential of digital technologies, automation, and innovation within EPZs and their implications for productivity, employment, and skill requirements.

By considering these implications and conducting further research, policymakers, practitioners, and researchers can work towards maximizing the positive impacts of EPZs while mitigating their challenges, ultimately promoting inclusive and sustainable development.

Keywords

1. Exports Processing Zones (EPZs): Special economic zones established to promote exports and attract foreign investment by providing incentives and infrastructure.

2. Development Strategy: A planned approach to stimulate economic growth, improve living standards, and address social challenges within a country or region.

3. Free Trade Zones: Designated areas where goods can be imported, stored, manufactured, and re-exported with reduced or eliminated customs duties and trade barriers.

4. Industrial Parks: Purpose-built zones that provide infrastructure and services to support industrial activities, typically attracting manufacturing and industrial companies.

5. Special Economic Zones: Geographical areas with specific economic regulations and policies that differ from the rest of the country, aimed at attracting investment, promoting exports, and fostering economic development.

6. Economic Benefits: Positive impacts of EPZs on the economy, such as increased exports, foreign investment, job creation, technology transfer, and industrial diversification.

7. Social Welfare: The well-being and quality of life of individuals and communities, including aspects such as access to healthcare, education, housing, and social security.

8. Labor Rights: The fundamental rights and protections afforded to workers, including fair wages, safe working conditions, the right to organize, and freedom from discrimination.

9. Gender Equality: Ensuring equal rights, opportunities, and treatment for all genders, promoting fairness and addressing discrimination and gender-based disparities.

10. Environmental Impact: The effects of EPZs on the environment, including pollution, resource depletion, and ecosystem degradation.

11. Foreign Direct Investment (FDI): Investment made by a company or individual from one country into another country, typically in the form of establishing or acquiring business operations.

12. Inclusive Growth: Economic growth that benefits all segments of society, reducing income inequality and improving living standards for marginalized groups.

Self Assessment

1. Which of the following factors contribute to the attractiveness of EPZs for foreign investors?

A. Tax incentives and customs exemptions

B. Strict labor regulations

C. High import tariffs

D. Limited infrastructure development

2. How can EPZs contribute to technology transfer in developing countries?

A. By prohibiting the use of foreign technologies within the zones

B. By fostering collaborations between local universities and EPZ industries

C. By implementing strict intellectual property laws within EPZs

D. By isolating EPZs from the domestic economy

3. Which of the following is a potential drawback of EPZs in terms of income inequality?

A. EPZs often provide high-paying jobs to local workers.

B. EPZs primarily employ skilled workers, leaving unskilled laborers unemployed.

C. EPZ workers receive the same wages as workers in the domestic economy.

D. EPZs have no impact on income distribution within a country.

4. How can EPZs contribute to environmental sustainability?

A. By implementing strict environmental regulations and monitoring within the zones

B. By prioritizing profit over environmental concerns

C. By encouraging excessive resource consumption and waste generation

D. By exempting EPZ industries from environmental regulations

5. Inclusive growth refers to:

A. Economic growth that benefits all segments of society

B. Economic growth that benefits only the wealthy elite

C. Economic growth that exclusively focuses on industrial development

D. Economic growth that leads to environmental degradation

6. In Country A, the establishment of EPZs has resulted in a significant increase in foreign direct investment (FDI) and export growth. This can be attributed to:

A. Tax incentives and customs exemptions provided to EPZ industries.

B. Strict regulations imposed on EPZ workers' rights.

C. Increased import tariffs on EPZ products.

D. Limited access to infrastructure and utilities within EPZs.

7. EPZs in Country B have been criticized for labor rights violations and poor working conditions. This highlights the challenge of:

A. Balancing economic development with social welfare concerns.

B. Providing excessive labor protections that hinder competitiveness.

C. Fostering a healthy work-life balance within EPZs.

D. Ensuring equal pay for all workers regardless of their productivity.

8. In Country C, EPZs have played a significant role in promoting technology transfer and innovation. This is primarily due to:

A. Strict intellectual property laws imposed within EPZs.

B. Limited access to technological advancements in the domestic economy.

C. Collaborations between EPZ industries and local research institutions.

D. Exclusive reliance on foreign technologies within EPZs.

9. EPZs in Country D have been successful in attracting foreign investors and promoting industrial diversification. This is primarily because of:

A. High import tariffs imposed on EPZ products.

B. Limited access to skilled labor within the domestic economy.

C. Infrastructure development and logistical advantages in EPZs.

D. Strict regulations and restrictions on foreign investment outside EPZs.

10. The establishment of EPZs in Country E has led to a rapid increase in employment opportunities. This is mainly attributed to:

A. Automation and the replacement of human labor with technology.

B. Low wages and exploitative labor practices within EPZs.

C. High levels of unemployment in the domestic economy.

D. Skill development programs and training initiatives in EPZs.

11. EPZs in Country F have had a positive impact on the surrounding communities by promoting local entrepreneurship and small-scale industries. This is primarily achieved through:

A. Isolating EPZs from the local economy to avoid competition.

B. Providing financial incentives and grants to local entrepreneurs.

C. Encouraging collaboration between EPZ industries and local businesses.

D. Imposing strict regulations on local businesses to protect EPZ industries.

12. EPZs in Country G have faced criticism for their negative environmental impact, including pollution and waste generation. This emphasizes the need for:

A. Stricter regulations and monitoring of environmental standards within EPZs.

B. Exempting EPZ industries from environmental regulations for economic growth.

C. Prioritizing economic development over environmental sustainability.

D. Isolating EPZs from the domestic economy to minimize environmental impact.

13. EPZs in Country H have played a significant role in promoting regional integration and trade. This is mainly facilitated through:

A. Imposing trade barriers and restrictions on regional competitors.

B. Collaborating with neighbouring countries to establish joint EPZs.

C. Promoting free trade agreements and regional economic partnerships.

D. Limiting market access and competition for domestic industries.

14. EPZs in Country I have been successful in reducing poverty and improving living standards. This is primarily achieved by:
A. Providing higher wages to EPZ workers compared to the domestic economy.
B. Fostering inclusive growth and ensuring equitable distribution of benefits.
C. Restricting access to social welfare programs for EPZ workers.
D. Promoting self-employment and entrepreneurship within EPZs.

15. The future outlook for EPZs globally is expected to be shaped by:
A. Increasing protectionist policies and trade barriers.
B. Growing emphasis on environmental sustainability and responsible business practices.
C. Shifts in global supply chains and the rise of automation and digital technologies.
D. Isolating EPZs from the global market to protect domestic industries.

Answers for Self Assessment

l.	A	2.	B	3.	B	4.	A	5.	A
6.	A	7.	A	8.	C	9.	C	10.	D
11.	C	12.	A	13.	C	14.	B	15.	C

Review Questions

1. Discuss the role of EPZs in promoting economic growth and attracting foreign investment in developing countries.
2. Evaluate the impact of EPZs on labor rights and working conditions, highlighting the challenges and potential solutions.
3. Analyze the environmental impact of EPZs and propose measures to promote sustainability within these zones.
4. Discuss the social and gender implications of EPZs, considering the inequalities and opportunities for improvement.
5. Assess the role of EPZs in technology transfer and innovation, and propose strategies to enhance knowledge spillovers and skill development.
6. How do EPZs contribute to the overall development strategy of a country? Discuss the key factors that make EPZs an attractive option for governments seeking economic growth and industrial development.
7. Analyze the role of EPZs in the global value chain. How do EPZs facilitate the integration of developing countries into global production networks? Discuss the benefits and challenges associated with this integration.
8. Assess the impact of EPZs on local communities and the surrounding areas. How do EPZs influence the social and economic dynamics of these regions? Discuss the potential benefits and drawbacks, including issues related to income inequality and community development.
9. Examine the role of government policies and regulations in shaping the success of EPZs. How can governments effectively design and implement policies to maximize the positive outcomes of EPZs while mitigating potential negative consequences?

10. Compare and contrast the experiences of different countries in implementing EPZs. Analyze the factors that have contributed to the success or failure of EPZs in various contexts, taking into account economic, social, and political factors.

11. Critically evaluate the effectiveness of EPZs as a tool for poverty reduction. Discuss the extent to which EPZs have contributed to improving the livelihoods of workers and local communities in developing countries.

12. Analyze the potential environmental risks and sustainability challenges associated with EPZs. How can EPZs adopt environmentally-friendly practices and promote sustainable development within their operations?

Further Readings

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Unit 17: Trade, Poverty, and Readjustments

Objectives

- Understand Importance of Trade Eradicating the Poverty
- Critically analysing the importance of political economy of Trad Policy

Introduction

Trade, poverty, and readjustments are intricately linked and hold significant importance in the global context. International trade, as a catalyst for economic growth, has the potential to reduce poverty by generating employment opportunities and promoting productivity. However, it is essential to acknowledge the challenges posed by trade's unequal distribution of benefits. According to the World Bank, around 10% of the global population still lives in extreme poverty, often concentrated in sectors more vulnerable to global competition. Moreover, trade imbalances and dependency can perpetuate poverty cycles, hindering the development prospects of certain nations. Economic readjustments, such as shifts in trade policies or technological advancements, can disrupt industries and employment patterns, impacting vulnerable populations the hardest. Evidence from the International Labour Organization reveals that economic crises and structural adjustments have resulted in job losses and increased poverty rates. Recognizing and addressing these complexities is paramount in designing equitable trade policies, establishing social safety nets, and fostering inclusive economic growth that aims to lift people out of poverty while navigating the challenges posed by readjustments.

Therefore, it is imperative for policymakers and stakeholders to adopt a comprehensive approach that considers the intertwined nature of trade, poverty, and readjustments. Efforts should be directed towards promoting fair trade practices, reducing trade imbalances, and ensuring the equitable distribution of trade benefits. Additionally, targeted interventions and social protection measures must be implemented to support vulnerable populations during economic readjustments and mitigate the negative impacts on poverty levels. By prioritizing inclusive and sustainable trade policies, addressing the underlying factors that contribute to poverty, and fostering international cooperation, we can strive towards a more equitable and prosperous global economy that benefits all segments of society.

This chapter aims to explore the complex relationship between trade, poverty, and readjustments within the global context. By examining the factors influencing poverty in trade and the consequences of economic readjustments on poverty levels, the chapter seeks to provide insights into effective policy recommendations and solutions. It also highlights the significance of inclusive and sustainable trade practices in reducing poverty and fostering equitable development.

17.1 Trade and Poverty

International trade refers to the exchange of goods, services, and capital across national borders. It involves the buying and selling of goods and services between countries, often facilitated by various economic and financial mechanisms. International trade is driven by the principle of comparative advantage, which states that countries specialize in producing goods and services in which they have a lower opportunity cost compared to other nations. By engaging in trade, countries can benefit from accessing a wider variety of goods, achieving economies of scale, and promoting efficiency in resource allocation.

It can take various forms, including the export and import of physical goods, such as manufactured products, agricultural commodities, and raw materials. It also encompasses the exchange of services, such as financial services, tourism, transportation, and intellectual property. Moreover, international trade involves the movement of capital across borders, including foreign direct investments, portfolio investments, and loans. Trade is facilitated by a range of factors, including trade agreements, tariffs, quotas, customs regulations, and transportation infrastructure. International organizations, such as the World Trade Organization (WTO), play a critical role in promoting and regulating global trade by establishing rules and frameworks for trade negotiations, resolving trade disputes, and fostering cooperation among member countries. International trade has significant implications for economies, societies, and individuals. It can stimulate economic growth, create job opportunities, increase productivity, and enhance living standards. Additionally, trade can foster cultural exchange, promote diplomatic relations, and contribute to the overall development and interconnectedness of nations.

Impact of trade on poverty

International trade has the potential to impact poverty levels in various ways, although the outcomes are influenced by multiple factors. While trade can contribute to poverty reduction by stimulating economic growth and job creation, it can also exacerbate inequalities and deepen poverty in certain contexts. According to the World Bank, between 1990 and 2015, global trade integration helped lift more than 1 billion people out of extreme poverty, defined as living on less than $1.90 per day. This represents a significant reduction in poverty rates worldwide. Trade has been instrumental in providing opportunities for developing countries to export their goods and access larger markets, leading to increased income generation and poverty alleviation. However, the impact of trade on poverty is not uniform across all countries and populations. Unequal distribution of trade benefits remains a challenge. Oxfam estimates that the richest 10% of the global population captures 48% of the benefits from increased trade, while the poorest 10% only receives 1%. This income disparity can contribute to widening inequalities and hinder poverty reduction efforts. Certain sectors and populations may be more vulnerable to the negative consequences of trade. Small-scale farmers in developing countries, for example, often face difficulties competing with heavily subsidized agricultural products from wealthier nations. This can result in reduced incomes and increased poverty rates among rural communities. Furthermore, trade imbalances and dependency can have adverse effects on poverty. Developing countries relying heavily on exporting a limited range of commodities may experience price volatility and vulnerability to market fluctuations. This can lead to economic instability and hinder poverty reduction efforts. It is crucial to note that the impact of trade on poverty is influenced by a range of factors, including domestic policies, governance, and social safety nets. Designing and implementing targeted policies and interventions to ensure that the benefits of trade are equitably distributed and contribute to poverty reduction remains a pressing challenge. While trade has undoubtedly played a significant role in poverty reduction, addressing the complex dynamics between trade and poverty requires a comprehensive and inclusive approach. By promoting fair trade practices, reducing trade imbalances, and implementing supportive policies, countries can maximize the potential of trade to contribute to poverty reduction and inclusive economic growth.

Furthermore, the impact of trade on poverty is influenced by various additional factors. Access to trade finance and infrastructure plays a crucial role in enabling small and medium-sized enterprises (SMEs) to participate in global trade. However, the World Trade Organization (WTO) estimates that the global trade finance gap for SMEs stands at around $1.5 trillion. Closing this gap and providing adequate support for SMEs can unlock their potential for job creation and poverty reduction. Trade facilitation measures, such as reducing trade costs and improving customs procedures, have the potential to enhance the inclusiveness of trade. According to the WTO, reducing trade costs by 1% globally could lift 1.3 million people out of extreme poverty. Therefore, streamlining trade processes and improving infrastructure can create a more conducive environment for trade-led poverty reduction. Moreover, trade diversification can mitigate risks and enhance resilience against external shocks. Overreliance on a limited range of export commodities increases vulnerability to price fluctuations and market volatility. Encouraging countries to diversify their export base and move up the value chain can foster sustainable and inclusive economic development. Lastly, empowering women to participate in trade can have a significant impact on poverty reduction. The International Trade Centre (ITC) estimates that increasing women's participation in the economy by just 10% could reduce poverty rates by 3-6%. Removing gender-related barriers to trade, such as discriminatory regulations and limited access to resources, can unlock the potential of women entrepreneurs and contribute to poverty alleviation. In summary, while trade has the potential to lift people out of poverty, ensuring its positive impact requires addressing key challenges. This includes promoting equitable distribution of trade benefits, supporting vulnerable sectors and populations, closing the trade finance gap, facilitating trade, promoting diversification, and empowering women in trade. By implementing targeted policies and interventions, countries can harness the potential of trade to effectively reduce poverty and foster sustainable development.

Factors contributing to the relationship between trade and poverty

Several factors contribute to the complex relationship between trade and poverty. Understanding these factors is essential for designing effective policies and interventions to ensure that trade contributes to poverty reduction and inclusive growth. Here are some key factors:

1. Trade Policies and Regulations: The design and implementation of trade policies and regulations can significantly influence the relationship between trade and poverty. Tariffs, quotas, subsidies, and non-tariff barriers can impact the competitiveness of industries, affecting employment and income opportunities. The presence of trade barriers can limit market access for developing countries, hindering their ability to benefit from global trade.

2. Market Access and Trade Integration: The level of market access and integration into the global trading system can have implications for poverty reduction. Developing countries that face barriers to entering global markets may struggle to expand their export sectors, limiting income generation and economic growth. Enhancing market access and reducing trade barriers can create opportunities for small producers and exporters to participate in global trade, leading to poverty reduction.

3. Sectoral Composition and Vulnerability: The composition of a country's export sectors can shape the relationship between trade and poverty. Some sectors may be more labor-intensive and have a higher poverty-reducing potential, while others may be more capital-intensive and less effective in generating employment and reducing poverty. Vulnerable sectors, such as agriculture or informal industries, may face challenges in adapting to global competition, leading to increased poverty rates among affected communities.

4. Income Distribution and Inequality: Trade can have implications for income distribution and inequality within countries. Unequal distribution of trade benefits, with a concentration of gains among a small segment of the population, can exacerbate existing income disparities and hinder poverty reduction efforts. Addressing inequality and ensuring that the benefits of trade reach marginalized and vulnerable populations are crucial for achieving inclusive growth.

5. Social Safety Nets and Institutions: The presence of robust social safety nets and supportive institutions can help mitigate the negative impacts of trade on poverty. Adequate social protection measures, such as income support programs, job training, and access to healthcare and education, can buffer individuals and communities from the adverse effects of economic dislocation and trade shocks. Strengthening institutions that promote transparency, accountability, and good governance is essential for ensuring that trade benefits reach those most in need.

By considering these factors and adopting a comprehensive approach, policymakers can navigate the complexities of the trade-poverty relationship and implement strategies that promote inclusive and sustainable trade practices, reduce poverty, and foster equitable development.

Factors Influencing Poverty in Trade

Several factors influence the relationship between trade and poverty, shaping the extent to which trade impacts poverty levels. Understanding these factors is crucial for addressing the challenges and maximizing the positive outcomes of trade on poverty reduction. Here are key factors influencing poverty in trade:

a. Unequal Distribution of Trade Benefits: The distribution of trade benefits among different segments of society plays a significant role in poverty levels. If trade benefits predominantly accrue to a small elite or specific industries, poverty reduction may be limited. Addressing income inequality and ensuring a more equitable distribution of trade gains can contribute to poverty reduction.

b. Vulnerability to Global Competition: Certain sectors and populations are more vulnerable to the impacts of trade and may face challenges in adapting to increased competition. Small-scale farmers, informal workers, and industries with low productivity or limited access to resources may struggle to compete with imported goods or foreign companies. Supporting vulnerable sectors and populations through targeted interventions can mitigate the negative effects of trade on poverty.

c. Trade Imbalances and Dependency: Trade imbalances and dependency can affect poverty levels. Countries heavily reliant on a limited range of exports may be more vulnerable to external shocks and market fluctuations. Diversifying exports and reducing dependency on a few commodities can enhance resilience and promote more inclusive growth.

d. Access to Markets and Trade Finance: Limited access to international markets and trade finance can hinder the participation of small and medium-sized enterprises (SMEs) in trade. Lack of access to credit, trade facilitation infrastructure, and supportive institutions can constrain the ability of SMEs to engage in global trade and benefit from its potential poverty reduction effects.

e. Trade Policies and Regulations: Trade policies and regulations, such as tariffs, quotas, and non-tariff barriers, can influence poverty levels. Trade barriers can hinder market access for developing countries and impede their ability to compete in global markets. Removing trade barriers, promoting fair trade practices, and ensuring a conducive policy environment can enhance the poverty-reducing impact of trade.

f. Institutional and Governance Factors: Effective institutions and good governance play a crucial role in shaping the outcomes of trade on poverty. Transparent and accountable institutions, along with anti-corruption measures, can create an enabling environment for trade that benefits all segments of society. Strengthening institutions and governance mechanisms supports poverty reduction efforts.

By considering these factors and implementing policies that address the specific challenges they present, countries can harness the potential of trade to reduce poverty and promote inclusive and sustainable development.

17.2 Case Study on Vietnam

Introduction:

Vietnam has undergone significant economic transformation in recent decades, with trade playing a pivotal role in its development. This case study examines the impact of trade on poverty in Vietnam, highlighting key factors, policies, and outcomes. Vietnam's shift toward market-oriented reforms and increased integration into the global economy has resulted in substantial poverty reduction. Between 2002 and 2018, the poverty rate in Vietnam declined from 28.9% to 5.2%, lifting millions out of poverty. The country's export-oriented manufacturing sector, agricultural exports, and foreign direct investment have been instrumental in this progress.

Factors Influencing Poverty in Trade:

a. Market Access and Diversification: Vietnam's successful integration into global trade networks, particularly through membership in the World Trade Organization (WTO) and various free trade agreements, has expanded market access for its exports. Diversification efforts beyond traditional sectors like textiles and footwear have created new opportunities for poverty reduction, allowing Vietnam to become a leading exporter of electronics, furniture, and seafood.

b. Rural-Urban Divide: Despite overall poverty reduction, regional disparities persist in Vietnam. Poverty rates are higher in rural areas, where access to markets, infrastructure, and public services is limited. Agricultural-dependent communities face challenges related to low productivity, lack of value addition, and vulnerability to climate change. Policies focusing on rural development, agricultural modernization, and improving rural infrastructure are essential for reducing poverty in these areas.

c. Skills and Labor Market: Vietnam's labor- intensive manufacturing sector, fueled by foreign direct investment, has provided employment opportunities and contributed to poverty reduction. However, labor market challenges remain, including limited access to quality education and training. Enhancing skills development programs and aligning them with industry needs can equip workers with the necessary competencies to secure higher-paying jobs, further reducing poverty.

d. Social Protection: Vietnam has implemented social protection programs to mitigate the impact of trade-related shocks on vulnerable populations. These programs include cash transfers, health insurance coverage, and targeted assistance for the poorest households. Such initiatives help cushion the adverse effects of economic changes and provide a safety net for those at risk of falling into poverty.

Policy Interventions and Outcomes:

a. Trade Liberalization: Vietnam's commitment to trade liberalization and reducing trade barriers has contributed to increased export competitiveness and attracted foreign investment. Tariff reductions and simplified customs procedures have facilitated trade flows, benefiting businesses and promoting economic growth. These measures have played a significant role in poverty reduction by stimulating employment and income generation.

b. Investment in Infrastructure: Recognizing the importance of infrastructure for trade and poverty reduction, Vietnam has invested significantly in building transportation networks, seaports, and energy infrastructure. Improved connectivity has enhanced market access for businesses, reduced transportation costs, and supported agricultural development in remote areas. This has helped alleviate poverty by opening up economic opportunities and improving livelihoods.

c. Targeted Poverty Reduction Programs: Vietnam has implemented targeted poverty reduction programs, including the National Target Program on Sustainable Poverty Reduction and the Program 135 for Poverty Reduction. These programs aim to improve access to basic services, promote income-generating activities, and enhance local governance in poor and remote areas. By addressing specific poverty challenges, these initiatives have made notable progress in reducing poverty disparities across regions.

Vietnam's experience highlights the significant impact of trade on poverty reduction. By leveraging market access, diversifying export sectors, investing in infrastructure, and implementing targeted poverty reduction programs, Vietnam has made substantial strides in reducing poverty levels. However, challenges remain, particularly in narrowing rural-urban disparities and addressing labor market skills gaps. Continued efforts to enhance inclusivity, sustain economic growth, and prioritize social protection will be essential for further poverty reduction and ensuring that the benefits of trade are shared equitably across Vietnam's population.

17.3 Economic Readjustments and Poverty

Economic readjustments, driven by structural reforms, play a vital role in addressing poverty by creating a favorable environment for sustainable economic growth and poverty reduction. Structural reforms encompass a range of policy changes aimed at improving productivity, enhancing competitiveness, and fostering economic efficiency. These reforms have the potential to significantly impact poverty levels by transforming economic structures, labor markets, and social safety nets. By promoting inclusive growth, job creation, and income opportunities, economic readjustments can contribute to poverty reduction. Here, we explore the relationship between economic readjustments and poverty, highlighting their significance and providing evidence of their impact. One key area where structural reforms have shown positive effects on poverty reduction is in Latin America. Countries like Chile and Peru implemented comprehensive structural reforms in the 1990s, including trade liberalization, privatization, and fiscal consolidation. These reforms facilitated economic readjustments and led to sustained economic growth. As a result, poverty rates in Chile decreased from 38.6% in 1990 to 8.6% in 2017, as reported by the World Bank. Similarly, in Peru, poverty rates dropped from 58.7% in 2004 to 20.5% in 2017, reflecting the positive impact of economic readjustments on poverty reduction. Another important aspect of structural reforms is the improvement of the business environment and the promotion of entrepreneurship. Countries that have implemented reforms to streamline business regulations and reduce bureaucratic hurdles have witnessed significant poverty reduction. For example, Rwanda implemented a series of business-friendly reforms that made it easier to start and operate businesses. As a result, the country experienced sustained economic growth and poverty reduction. The poverty rate in Rwanda declined from 77% in 1994 to 55% in 2017, according to the National Institute of Statistics of Rwanda. The reforms attracted investments, stimulated job creation, and empowered individuals to lift themselves out of poverty through entrepreneurial endeavors. These examples illustrate the transformative power of structural reforms and economic readjustments in addressing poverty. By creating an enabling environment for economic growth, trade liberalization, labor market flexibility, and business-friendly reforms can generate employment opportunities, improve income levels, and contribute to poverty reduction. However, it is crucial to ensure that these reforms are implemented in a socially responsible manner, with supportive measures such as social safety nets, access to education and healthcare, and targeted assistance for vulnerable populations. This comprehensive approach can maximize the positive impact of economic readjustments on poverty reduction and create a more inclusive and equitable society.

The consequences of readjustments on poverty levels can vary depending on the specific context and implementation of reforms. While economic readjustments have the potential to reduce

poverty in the long run by promoting economic growth and improving efficiency, they can also have short-term consequences that may initially exacerbate poverty. Here are some key consequences of readjustments on poverty levels:

A. Short-term Income Disparities: During the process of economic readjustments, certain sectors or industries may undergo significant changes or face disruptions. This can lead to temporary job losses, income disparities, and increased inequality, particularly for individuals working in sectors that experience a decline. These short-term consequences can increase poverty levels in the immediate aftermath of readjustments.

B. Urban-Rural Divide: Economic readjustments can disproportionately impact rural communities, as changes in trade patterns, technological advancements, and shifts in industry often concentrate economic activities in urban areas. This urban-rural divide can lead to increased poverty rates in rural regions as they struggle to keep up with the changing economic landscape and may not have access to the same opportunities for employment and income generation.

C. Social Safety Nets: The effectiveness of social safety nets and welfare programs becomes crucial during economic readjustments. While reforms aim to promote efficiency, they may also result in reduced public spending, including social welfare programs. If not adequately addressed, this reduction in safety nets can leave vulnerable populations, such as low-income households, unemployed individuals, or those with limited access to education and healthcare, at a higher risk of falling into poverty or experiencing increased hardship.

D. Education and Skills: Economic readjustments often require a shift in the demand for skills and competencies. As industries evolve and adapt to changing economic conditions, individuals who lack the necessary skills may face difficulties in finding employment or securing income-generating opportunities. This can result in higher poverty rates among those who are unable to acquire the required education or training to participate in the new economic landscape.

E. Long-term Poverty Reduction: Despite the potential short-term consequences, well-planned and inclusive economic readjustments can lead to long-term poverty reduction. By creating an enabling environment for sustainable economic growth, readjustments can generate employment opportunities, improve income levels, and promote investment in human capital, infrastructure, and social development. Over time, these factors can contribute to poverty reduction and socioeconomic progress.

It is important to note that the consequences of readjustments on poverty levels are highly dependent on the policy frameworks, social safety nets, and supportive measures put in place to mitigate any negative impacts. By incorporating targeted poverty alleviation programs, investing in human capital development, promoting social inclusion, and ensuring equitable access to opportunities, the negative consequences of readjustments can be minimized, and the long-term benefits can be maximized for poverty reduction and inclusive growth.

During readjustment periods, individuals and communities often face various challenges that can impact their livelihoods and well-being. Here are some examples of challenges faced by individuals and communities, supported by relevant facts and figures:

a. Job Displacement and Unemployment: Economic readjustments can lead to job displacement and increased unemployment rates as certain industries decline or undergo restructuring. For instance, during the transition from a planned to a market economy in Poland in the early 1990s, the unemployment rate surged from 2.5% in 1989 to 16.6% in 1993, as reported by the World Bank. Similarly, following the economic readjustments in

Russia in the 1990s, the unemployment rate reached its peak at around 13% in 1998, according to data from the Federal State Statistics Service of Russia. These examples highlight the challenges individuals face in securing stable employment during periods of economic readjustment.

b. Income Inequality and Poverty: Economic readjustments can exacerbate income inequality and increase poverty rates, particularly in vulnerable populations. For instance, in Brazil, economic readjustments and structural reforms in the 1990s led to a rise in income inequality. The Gini coefficient, a measure of income inequality, increased from 0.57 in 1990 to 0.63 in 1996, as reported by the World Bank. Similarly, in Indonesia, the Asian financial crisis in the late 1990s resulted in a significant increase in the poverty rate, rising from 11.3% in 1996 to 23.4% in 1999, according to data from the National Socio-Economic Survey. These figures demonstrate the adverse impact of readjustments on income distribution and poverty levels.

c. Disruption of Social Services: Economic readjustments can disrupt social services, including healthcare, education, and social welfare programs. Reductions in public spending and budgetary constraints can limit access to essential services, particularly for vulnerable groups. For example, during the economic readjustments in Greece following the global financial crisis, severe austerity measures were implemented, leading to cuts in healthcare spending and reduced access to healthcare services. A study published in The Lancet estimated that the economic crisis and subsequent readjustments resulted in a 37% increase in the risk of mortality due to lack of access to healthcare services.

d. Migration and Urbanization: Economic readjustments often result in rural-urban migration as individuals and communities seek better opportunities in urban areas. This can lead to challenges such as overcrowding, inadequate housing, and strain on urban infrastructure and services. For instance, in China, economic readjustments and urbanization processes have contributed to significant internal migration, with millions of rural residents moving to cities in search of employment opportunities. It is estimated that the number of internal migrants in China reached around 281 million in 2020, according to data from the National Bureau of Statistics of China.

These challenges faced by individuals and communities during readjustment periods highlight the complexities and socio-economic impacts of such transitions. While economic readjustments can ultimately lead to long-term benefits, it is crucial to address these challenges through comprehensive social policies, safety nets, and targeted interventions to support affected individuals and communities, ensuring that the benefits of readjustments are shared equitably and that vulnerable populations are not left behind.

Real Based Examples:

1. Transition in Eastern Europe: The transition from centrally planned to market-oriented economies in Eastern European countries during the 1990s provides a significant case study. One example is the Czech Republic, where economic readjustments led to job losses and increased unemployment rates. According to data from the Czech Statistical Office, the unemployment rate in the Czech Republic rose from 2.2% in 1990 to a peak of 8.3% in 1998. Similarly, in Hungary, the unemployment rate increased from 2.3% in 1990 to 11.4% in 1993, as reported by the Hungarian Central Statistical Office. These figures demonstrate the challenges faced by individuals in finding employment during the transition period.

2. Structural Adjustment Programs in Sub-Saharan Africa: Structural adjustment programs (SAPs) implemented in several Sub-Saharan African countries during the 1980s and 1990s provide another case study. One example is Ghana, which underwent economic readjustments under the guidance of the International Monetary Fund (IMF) and World Bank. While these reforms aimed to promote economic growth and stability, they also led to short-term challenges. According to the World Bank, between 1983 and 1987, Ghana experienced a decline in real wages, increased inflation, and a decrease in social spending, resulting in heightened poverty levels. The poverty rate in Ghana rose from 28.5% in 1984 to 51.7% in 1992, as reported by the Ghana Statistical Service.

These case studies highlight the challenges faced by individuals and communities during readjustment periods, including job losses, increased unemployment rates, income inequalities, reduced access to social services, and heightened poverty levels. However, it is important to note that the impacts of readjustments can vary depending on the specific context, policy frameworks, and implementation of reforms. While these challenges are evident, it is also worth noting that in the long term, well-planned and inclusive readjustments can lead to economic growth, poverty reduction, and improved living standards.

17.4 Political Economy of Trade Policy

The political economy of trade policy refers to the study of the interrelationship between politics and economics in the formulation, implementation, and consequences of trade policies. It examines how political factors, including the interests, power dynamics, and institutions, influence the design and outcomes of trade policies. In this context, politics refers to the process of decision-making and resource allocation, driven by various actors, such as government officials, interest groups, and public opinion. Economics, on the other hand, refers to the principles and theories that govern the production, distribution, and consumption of goods and services. The significance of the political economy of trade policy lies in its ability to shed light on the complex dynamics that shape trade policy decisions. Trade policies have profound economic, social, and political implications, influencing factors such as economic growth, income distribution, employment, industry competitiveness, environmental sustainability, and international relations.

Understanding the political economy of trade policy is crucial for several reasons:

1. Policy Formulation: It helps explain why certain trade policies are adopted and the underlying motivations behind them. Political factors, such as the influence of interest groups or electoral considerations, play a significant role in shaping policy choices.

2. Policy Implementation: It highlights the challenges and opportunities in implementing trade policies, considering the interests and power dynamics among different stakeholders. Political factors can impact the effectiveness and efficiency of policy implementation.

3. Distributional Effects: It recognizes that trade policies can have winners and losers, affecting different industries, regions, and social groups in diverse ways. The political economy lens helps identify the distributional consequences of trade policies and understand the resulting social and economic impacts.

4. Policy Reforms: It provides insights into the political constraints and opportunities for trade policy reforms. Understanding the political economy dynamics helps identify strategies for managing resistance, building coalitions, and achieving consensus on policy changes.

5. Global Governance: It contributes to the understanding of global trade governance and negotiations. The political economy perspective helps explain the power dynamics among countries, the role of international institutions, and the influence of various actors in shaping global trade rules.

17.5 Factors Influencing Trade Policy Decisions

By examining the political economy of trade policy, policymakers, researchers, and stakeholders can gain a deeper understanding of the forces at play, make informed decisions, and design policies that are politically feasible, economically beneficial, and socially inclusive. Trade policy decisions are influenced by a variety of factors, ranging from economic considerations to political dynamics and societal pressures. Here are some key factors that influence trade policy decisions:

A.   Economic Factors:

A.1 Comparative advantage: Trade policy decisions are influenced by a country's assessment of its comparative advantage in specific industries or sectors, taking into account factors such as resource endowments, technological capabilities, and production efficiency.

A.2 Economic integration: The desire to promote regional or global economic integration through trade agreements and preferential trade arrangements can shape trade policy decisions.

A.3 Protection of domestic industries: Governments may implement trade policies to protect domestic industries from foreign competition, especially in sectors deemed strategic, sensitive, or important for national security.

B.   Political Factors:

B.1 Political ideologies and party platforms: Different political ideologies, such as free trade liberalism or protectionism, can influence trade policy decisions. Political parties may have specific stances on trade issues that guide their policymaking.

B.2 Public opinion and interest groups: Public sentiment and the influence of interest groups, including industry associations, labor unions, and environmental organizations, can shape trade policy decisions. Governments may respond to the demands and pressures of these groups to maintain political support or avoid social unrest.

B.3 Electoral considerations: Trade policy decisions can be influenced by electoral dynamics, with policymakers taking into account the potential impact of their decisions on voter preferences and electoral outcomes.

C.   International and Global Factors:

C.1 Bilateral and multilateral negotiations: Trade policy decisions are influenced by negotiations and agreements with other countries or groups of countries. Governments consider the benefits, costs, and trade-offs associated with these agreements when formulating trade policies.

C.2 Power dynamics: The influence of powerful countries or trading blocs in shaping global trade rules can impact trade policy decisions. The power dynamics in international trade negotiations can determine the extent to which a country can achieve its desired trade policy objectives.

C.3 International institutions: Trade policy decisions can be influenced by the rules and regulations set by international organizations such as the World Trade Organization (WTO) and regional trade blocs. These institutions provide frameworks and guidelines that shape the choices available to policymakers.

D.   Socio-cultural and Environmental Factors:

D.1 Social concerns: Trade policy decisions can be influenced by societal concerns related to labor rights, human rights, child labor, environmental sustainability, and cultural preservation. Governments may consider these factors when formulating trade policies to align with public values and expectations.

D.2 Public health and safety: Trade policy decisions related to food safety, product standards, and intellectual property rights can be influenced by considerations of public health and safety.

It is important to note that the relative importance of these factors varies across countries and over time. Trade policy decisions often involve a complex interplay of these factors, and policymakers must navigate multiple interests and trade-offs to develop trade policies that align with their national objectives and priorities.

Summary

In conclusion, the topics of trade, poverty, and readjustments are interconnected and have significant implications in the global context. Trade liberalization has the potential to drive economic growth and reduce poverty by expanding market access, increasing competitiveness, and promoting specialization. However, its impacts on poverty are complex and varied, with both positive and negative consequences depending on factors such as income distribution, sectoral dynamics, and social protection measures. Economic readjustments, such as structural reforms, can contribute to long-term growth and development but often entail short-term disruptions and challenges. These readjustments can lead to job losses, income inequalities, and social hardships, particularly for vulnerable individuals and communities. Effective policies and interventions are necessary to mitigate these negative effects and support affected individuals during transitional periods. The relationship between trade and poverty is influenced by various factors, including trade policies, market access, investment in human capital, and institutional frameworks. While trade can create opportunities for poverty reduction, it is crucial to address the specific needs of vulnerable groups, including small-scale farmers, informal sector workers, and marginalized communities, to ensure that they can fully participate and benefit from trade activities. The political economy of trade policy plays a pivotal role in shaping trade decisions. Political factors, such as the interests of stakeholders, public opinion, and electoral considerations, interact with economic considerations to shape trade policy outcomes. Effective policy formulation requires stakeholder engagement, transparency, and coherence with broader development objectives. Additionally, international cooperation and regional integration play significant roles in shaping global trade rules and influencing national trade policies. To address the challenges and harness the potential of trade, poverty, and readjustments, it is important to adopt comprehensive policy approaches. These include targeted social protection measures, investment in education and skill development, promotion of inclusive growth, formalization of the informal sector, and stakeholder engagement in the trade policy process. Moreover, policy coherence, transparency, and institutional strengthening are essential for managing the political economy of trade policy and achieving sustainable and inclusive development outcomes. By understanding and addressing the complex interplay of these factors, policymakers can design and implement trade and poverty reduction strategies that foster inclusive growth, alleviate poverty, and ensure that the benefits of trade are shared equitably among all segments of society.

Keywords

- Readjustments: Changes or adaptations made in response to new circumstances or challenges.
- Trade liberalization: The removal or reduction of barriers to international trade to promote free trade.
- Informal sector: Economic activities that are not regulated or protected by formal government structures.
- International trade agreements: Agreements between countries to facilitate and regulate trade, often including provisions on tariffs, quotas, and market access.
- Poverty reduction strategies: Policies and measures aimed at alleviating poverty and improving the well-being of disadvantaged individuals and communities.

Self Assessment

1. Trade liberalization is likely to have the most positive impact on welfare when:
A. It is accompanied by increased trade barriers
B. It is focused on protecting domestic industries
C. It promotes free and fair competition in the global market
D. It favors multinational corporations over small businesses

International Economics

2. The main mechanism through which trade liberalization can contribute to poverty reduction is by:
A. Creating more job opportunities in the informal sector
B. Reducing income inequality within a country
C. Increasing government expenditure on social welfare programs
D. Decreasing the overall level of international trade

3. Trade readjustments can lead to short-term challenges and disruptions, particularly for:
A. High-skilled workers in export-oriented industries
B. Domestic industries protected by trade barriers
C. Low-skilled workers in import-competing sectors
D. Multinational corporations operating in multiple markets

4. The impact of trade liberalization on poverty is likely to be more positive in countries that:
A. Have a high level of income inequality to begin with
B. Rely heavily on the informal sector for employment
C. Have strong social protection measures in place
D. Focus primarily on protecting domestic industries

5. Trade liberalization can lead to trade readjustments, which involve:
A. A temporary decrease in international trade flows
B. The reallocation of resources from declining industries to growing industries
C. A reduction in the overall level of foreign direct investment (FDI)
D. The elimination of competition in the domestic market

6. How does trade liberalization affect the informal sector?
A. It leads to formalization of informal businesses
B. It increases competition for informal sector workers
C. It reduces the overall size of the informal sector
D. It has no impact on the informal sector

7. Trade liberalization can contribute to poverty reduction in the informal sector by:
A. Providing access to new markets and opportunities
B. Increasing barriers to entry for informal businesses
C. Reducing informal sector employment opportunities
D. Encouraging informal businesses to transition into the formal sector

8. How does trade liberalization influence trade patterns?
A. It decreases the overall volume of international trade
B. It promotes import substitution and domestic production
C. It leads to an increase in imports and exports
D. It has no impact on trade patterns

9. The relationship between trade and poverty is influenced by:

A. The level of income inequality within a country

B. The geographical location of the country

C. The availability of natural resources in the country

D. The political stability of the country

10. Trade liberalization is most likely to benefit poverty reduction when combined with:

A. Protectionist measures to shield domestic industries

B. Investments in education and skill development

C. Reductions in social protection programs

D. Increased barriers to foreign direct investment (FDI)

11. The political economy of trade refers to the study of:

A. Economic theories and models related to international trade

B. The political factors and institutions that shape trade policies and outcomes

C. The impact of trade on economic growth and development

D. The role of multinational corporations in global trade

12. Which of the following factors influence trade policy decisions?

A. Public opinion and interest groups

B. Technological advancements in the global market

C. Currency exchange rates

D. Social welfare programs

13. What role do domestic industries play in shaping trade policy?

A. They have no influence on trade policy decisions

B. They often advocate for protectionist measures to safeguard their interests

C. They prioritize free trade agreements to expand their market access

D. They focus solely on domestic market expansion without considering international trade

14. The "infant industry" argument suggests that:

A. Established industries should receive trade protection to maintain their dominance

B. Developing industries require temporary trade protection to nurture their growth and competitiveness

C. Trade liberalization is always beneficial for infant industries

D. The growth of infant industries does not depend on trade policies

15. What is the relationship between trade policy and national sovereignty?

A. Trade policy decisions are solely determined by international organizations, limiting national sovereignty

B. Trade policy decisions are entirely determined by individual nations, ensuring full national sovereignty

C. Trade policy decisions involve a balance between international obligations and national interests, impacting national sovereignty

D. Trade policy decisions have no impact on national sovereignty

Answers for Self Assessment

l.	C	2.	B	3.	C	4.	C	5.	B
6.	B	7.	A	8.	C	9.	A	10.	B
11.	B	12.	A	13.	B	14.	B	15.	C

Review Questions

1. What are the potential advantages and disadvantages of trade liberalization on poverty reduction? How can policymakers maximize the benefits while minimizing the negative consequences?

2. How can trade policies be designed to ensure that the benefits of trade are more equitably distributed among different segments of society, including marginalized communities and the informal sector?

3. To what extent do economic readjustments, such as structural reforms, contribute to poverty alleviation in the long term? How can the negative short-term impacts on vulnerable individuals and communities be effectively addressed?

4. What are the main challenges faced by developing countries in harnessing the benefits of trade and managing the potential negative effects on poverty and inequality?

5. How do political factors, such as public opinion and interest group influence, shape trade policies and their impact on poverty? What measures can be taken to ensure that trade policies are driven by the broader development objectives and priorities of a country?

6. What role can international cooperation and collaboration play in addressing the trade-poverty nexus? How can countries work together to promote inclusive trade policies that prioritize poverty reduction and social welfare?

7. How can the political economy of trade policy be effectively managed to balance the interests of different stakeholders, including domestic industries, workers, and consumers, while ensuring poverty reduction objectives are met?

8. What are the potential implications of trade policy decisions on the informal sector, which often employs a large portion of the population in developing countries? How can trade policies be designed to promote formalization and improve the conditions of informal sector workers?

9. How can governments enhance social protection measures and safety nets to support individuals and communities during periods of economic readjustments and trade disruptions? What are the most effective approaches to ensure that vulnerable groups are not left behind?

10. How can policymakers address the environmental and sustainability aspects of trade, ensuring that economic growth and poverty reduction efforts are conducted in a way that is environmentally responsible and sustainable?

Further Readings

- "Development as Freedom" by Amartya Sen
- "The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics" by William Easterly
- "Trade, Growth, and Poverty" edited by Deepak Nayyar
- "The Shock Doctrine: The Rise of Disaster Capitalism" by Naomi Klein
- "The End of Poverty: Economic Possibilities for Our Time" by Jeffrey D. Sachs
- "Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty" by Abhijit Banerjee and Esther Duflo
- "Globalization and Poverty" by Ann Harrison

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Unit 18: International Trade and Development Paradigms

Objectives

- Understand the approaches of Post second World War.
- Understand importance of Post second World War in shaping the trade flows and protectionism policies.

Introduction

International trade and development are two intertwined concepts that have significant implications for global economic growth and welfare. International trade refers to the exchange of goods, services, and capital across national borders, while development refers to the process of improving human well-being and economic progress. The growth of international trade has been driven by advancements in transportation, communication, and technology, which have facilitated the movement of goods, services, and capital across borders. International trade has expanded rapidly over the past few decades, with developing countries playing an increasingly prominent role in global trade.

It really plays a crucial role in promoting economic growth and development. It can enhance productivity, generate employment, and increase access to goods and services. International trade allows countries to specialize in producing goods and services in which they have a comparative advantage, leading to increased efficiency and productivity. Further it promotes technology transfer and innovation, allowing developing countries to acquire new technologies and knowledge from developed countries. This can lead to the development of new industries, the upgrading of existing ones, and increased productivity. However, the benefits of international trade and development are not automatic or evenly distributed. Developing countries face challenges in integrating into the global economy due to lack of infrastructure, limited access to financing, and weak institutional capacity. Trade barriers, including tariffs and non-tariff measures, can also hinder access to global markets and limit the potential benefits of international trade. Policy frameworks play a critical role in facilitating the benefits of international trade and development. Effective policies can support the development of infrastructure, foster innovation and technology transfer, and promote institutional capacity building. Trade policies, such as trade agreements and investment promotion, can also enhance the benefits of international trade for economic development.

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18.1 Relation Between International Trade and Development

International trade plays a crucial role in driving economic development and growth for countries around the world. It involves the exchange of goods, services, and capital across national borders, connecting economies and creating opportunities for specialization, innovation, and resource allocation. Here are some key points highlighting the significance of international trade for economic development:

A. Market Expansion: International trade allows countries to access larger markets beyond their domestic borders. This expanded market potential provides opportunities for businesses to increase their customer base and sales, leading to increased production, economies of scale, and overall economic growth.

B. Comparative Advantage: International trade is based on the principle of comparative advantage, which states that countries should specialize in producing goods and services in which they have a lower opportunity cost. By focusing on their areas of comparative advantage, countries can achieve higher efficiency, productivity, and competitiveness, leading to improved economic performance.

C. Resource Allocation: International trade facilitates the efficient allocation of resources globally. Countries can specialize in the production of goods and services that make the most effective use of their available resources, whether it be labor, capital, natural resources, or technological expertise. This specialization enhances overall productivity and fosters economic development.

D. Technological Transfer and Innovation: International trade facilitates the transfer of technology and knowledge across borders. Through trade, countries can gain access to new technologies, advanced production methods, and managerial practices from trading partners. This exposure to innovation and technological advancements can fuel productivity growth, stimulate domestic industries, and promote overall economic development.

E. Foreign Direct Investment (FDI): International trade often goes hand in hand with foreign direct investment. FDI involves the establishment of businesses or investment in existing enterprises by foreign entities. FDI brings in capital, technology, and management expertise, contributing to job creation, infrastructure development, and knowledge spillovers. These inflows of FDI can significantly enhance economic development in recipient countries.

F. Poverty Reduction: International trade has the potential to reduce poverty and improve living standards. It can create employment opportunities, increase incomes, and alleviate poverty through its impact on economic growth. By participating in global trade, developing countries can tap into global value chains, enhance their competitiveness, and integrate into the global economy, leading to poverty reduction and improved livelihoods.

It is important to note that the benefits of international trade are not automatic or evenly distributed. Policy frameworks, infrastructure, institutional capacity, and access to markets all play significant roles in determining the extent to which countries can harness the benefits of international trade for their economic development.

18.2 Development Crisis

Development crises refer to significant challenges and obstacles that hinder the progress of a country or region in achieving sustainable economic growth, social well-being, and human development. These crises can manifest in various forms and are characterized by a combination of economic, social, political, and environmental factors. Here are some key points to consider in discussing development crises:

A. Economic Factors: Development crises often involve economic challenges such as poverty, income inequality, high unemployment rates, inflation, fiscal deficits, and external debt

burdens. These economic factors can create a cycle of underdevelopment, hinder investment, and impede economic growth.

B. Social Factors: Social issues such as inadequate access to education, healthcare, housing, and basic services contribute to development crises. Social exclusion, discrimination, and a lack of social safety nets can exacerbate poverty and inequality, leading to social unrest and instability.

C. Political Factors: Weak governance, political instability, corruption, and lack of effective institutions are significant contributors to development crises. Poor governance can undermine economic policies, discourage investment, and erode public trust, leading to political and social unrest.

D. Environmental Factors: Environmental degradation, natural disasters, and climate change can also trigger development crises. These factors can lead to resource depletion, loss of agricultural productivity, displacement of populations, and increased vulnerability to environmental risks.

E. Structural Issues: Development crises often stem from underlying structural issues within economies. These can include overdependence on a few primary commodities, lack of economic diversification, weak industrialization, and limited technological capabilities. Such structural constraints can hinder sustained economic growth and resilience.

F. External Factors: Global economic fluctuations, unequal trade relations, and geopolitical dynamics can exacerbate development crises. Vulnerable economies may face challenges in accessing international markets, attracting foreign direct investment, and securing favorable terms of trade.

Addressing development crises requires comprehensive strategies that encompass economic, social, political, and environmental dimensions. Key measures include promoting inclusive growth, investing in human capital, strengthening governance institutions, improving infrastructure, implementing sustainable development practices, and fostering international cooperation and partnerships. It is important to note that the specific causes and dynamics of development crises vary across countries and regions. Therefore, a thorough analysis of each context is necessary to understand the unique challenges and develop appropriate solutions.

18.3 Current Facts on Development Crisis

1. Poverty and Inequality: Development crises are often characterized by high levels of poverty and income inequality. According to the World Bank, as of 2020, about 9.2% of the global population (around 700 million people) lived in extreme poverty, surviving on less than $1.90 per day. Additionally, income inequality has been on the rise in many countries, exacerbating social and economic disparities.

2. Human Development Indicators: Development crises are reflected in low human development indicators, such as low life expectancy, high infant mortality rates, and limited access to education and healthcare. For example, the United Nations Development Programme's Human Development Index (HDI) measures countries' average achievements in these areas. Countries facing development crises often rank low on the HDI scale.

3. Unemployment and Informal Economy: Development crises are often associated with high unemployment rates and a large informal economy. Lack of employment opportunities and decent work can lead to social instability and hinder economic growth. According to the International Labour Organization, global unemployment reached 8.8% in 2020, with an estimated 255 million people unemployed.

4. Debt Burden: Many developing countries face significant debt burdens, which can contribute to development crises. Debt servicing obligations can divert resources away from essential social investments, exacerbating poverty and hindering development. The total external debt of developing countries reached $11.3 trillion in 2020, according to the World Bank.

5. Environmental Degradation: Development crises are intertwined with environmental challenges. Deforestation, pollution, climate change, and natural disasters can have devastating impacts on economies and societies. For example, the Intergovernmental Panel on Climate Change (IPCC) warns that the consequences of global warming pose significant risks to food security, water resources, and human settlements.

6. Conflict and Political Instability: Development crises often occur in regions affected by conflict and political instability. These factors disrupt economic activities, displace populations, and hinder development efforts. According to the Institute for Economics and Peace, in 2020, there were 45 active armed conflicts worldwide, contributing to significant humanitarian and developmental challenges.

7. Aid and Development Assistance: International aid and development assistance play a crucial role in addressing development crises. Donor countries and international organizations provide financial and technical support to help countries overcome challenges and achieve sustainable development. In 2020, official development assistance (ODA) amounted to $161.2 billion, according to the Organisation for Economic Co-operation and Development (OECD).

These facts highlight some of the key aspects and dimensions of development crises. However, it is important to note that the specific context and characteristics of each crisis may vary, and comprehensive analysis is needed to understand the unique challenges faced by different countries and regions.

18.4 Globalization Strategies to combat Development Crisis

a. Universal Development Strategy

A universal development strategy refers to an approach aimed at addressing common global challenges and promoting sustainable development across countries and regions, regardless of their specific circumstances or levels of development. It recognizes the interconnectedness of the world and the need for collective efforts to achieve shared prosperity and well-being for all. The significance of a universal development strategy lies in its recognition that many global challenges, such as poverty, inequality, climate change, and economic instability, transcend national boundaries and require comprehensive and coordinated solutions. It emphasizes the importance of inclusive growth, social welfare, environmental sustainability, and international cooperation. At its core, a universal development strategy seeks to foster economic growth that is sustainable, equitable, and inclusive. It promotes policies and initiatives that aim to enhance productivity, create jobs, and improve living standards. This involves investing in human capital development, promoting innovation and technological advancements, and supporting entrepreneurship and small and medium-sized enterprises (SMEs). Trade and investment play a crucial role in a universal development strategy. It recognizes the benefits of open and fair trade, which can promote economic integration, expand markets, and create opportunities for countries to specialize in areas where they have a comparative advantage. This involves reducing trade barriers, facilitating the flow of goods, services, and investments, and promoting a rules-based international trading system. Secondly, Social welfare is another key aspect of a universal development strategy. It emphasizes the importance of reducing poverty, addressing inequality, and ensuring access to basic services such as education, healthcare, and social protection. It recognizes that inclusive growth is not just about economic indicators but also about social well-being, human rights, and social cohesion. It involves implementing policies that promote social inclusion, gender equality, and the empowerment of marginalized groups. Thirdly, Environmental sustainability is a critical pillar of a universal development strategy. It acknowledges the need to address climate change, protect

natural resources, and promote sustainable consumption and production patterns. This involves adopting renewable energy sources, promoting energy efficiency, mitigating greenhouse gas emissions, and investing in climate-resilient infrastructure. It recognizes that economic development cannot be achieved at the expense of environmental degradation and that a sustainable future requires a balance between economic growth and environmental stewardship. Fourthly, International cooperation and partnerships are fundamental to a universal development strategy. It recognizes that no single country or actor can tackle global challenges alone. It calls for collaboration between governments, international organizations, civil society, and the private sector to share knowledge, expertise, and resources. This involves supporting developing countries through development assistance, technology transfer, capacity building, and debt relief. It also entails promoting global governance mechanisms that are inclusive, transparent, and accountable. Thus, a universal development strategy is an approach that recognizes the interconnectedness of global challenges and the need for collective action to address them. It emphasizes inclusive and sustainable economic growth, social welfare, environmental sustainability, and international cooperation. By adopting such a strategy, countries can work together towards achieving the Sustainable Development Goals and creating a better future for all.

In the context of combating the crisis in Europe and the USA, a universal development strategy can indeed play a vital role. Here are some detailed explanations, supported by relevant facts and figures:

    a.   Economic Resilience:

A universal development strategy can help countries in Europe and the USA build economic resilience by diversifying their economies and reducing dependency on specific sectors. This can be achieved through promoting innovation, technological advancements, and entrepreneurship. According to the European Commission, the EU's economic resilience strategy includes initiatives to support the digital transition, green transformation, and enhance competitiveness, with a focus on investing in research and innovation. In the USA, the National Bureau of Economic Research highlights that fostering entrepreneurship and innovation can lead to job creation and economic growth, particularly during times of crisis.

    b.   Trade and Investment:

A universal development strategy encourages countries to engage in international trade and attract foreign direct investment (FDI) to stimulate economic growth and create employment opportunities. In Europe, trade is a crucial driver of economic activity. The European Commission reports that in 2020, the EU was the world's largest exporter of goods and services, accounting for 15.4% of global exports. Similarly, the USA is a major player in international trade. The U.S. Department of Commerce states that exports of goods and services supported an estimated 11.7 million jobs in the country in 2020. By promoting trade openness and facilitating investment flows, a universal development strategy can enhance economic recovery and competitiveness.

    c.   Social Welfare:

A universal development strategy recognizes the importance of inclusive growth and social welfare. It aims to reduce poverty, address income inequality, and improve access to education, healthcare, and social protection. In Europe, social protection systems play a critical role in mitigating the impact of economic crises. The European Commission highlights that social protection spending accounted for 28.7% of GDP in the EU-27 in 2019. In the USA, social safety nets, such as Medicaid and the Supplemental Nutrition Assistance Program (SNAP), help support vulnerable populations. According to the U.S. Census Bureau, government transfer payments reduced the poverty rate from 22.4% to 11.8% in 2020. A universal development strategy can strengthen social safety nets, enhance access to quality education and healthcare, and promote inclusive policies that uplift marginalized communities.

    d.   Environmental Sustainability:

A universal development strategy recognizes the importance of addressing climate change and promoting environmental sustainability. In Europe, the European Green Deal is a central element of the EU's recovery strategy. It aims to make the EU the world's first climate-neutral continent by 2050 and mobilize significant investments in green technologies and sustainable infrastructure. In the USA, the Biden administration has set ambitious climate goals, such as achieving a net-zero emissions economy by 2050. The American Jobs Plan includes significant investments in renewable energy, electric vehicles, and infrastructure upgrades to promote sustainability. A universal

development strategy can facilitate the transition to a low-carbon economy, create green jobs, and contribute to mitigating the environmental crisis.

e. International Cooperation:

A universal development strategy emphasizes the importance of international cooperation and partnerships to address global challenges effectively. In Europe, the European Union has established mechanisms for cooperation and support among member states. The EU Recovery and Resilience Facility, with a budget of €672.5 billion, aims to foster economic recovery and resilience. In the USA, international cooperation is crucial in addressing common challenges. The country has reengaged with international institutions and initiatives, such as rejoining the Paris Agreement on climate change. Through international cooperation, countries can share knowledge, expertise, and resources to combat the crisis in Europe and the USA effectively. This includes sharing best practices, coordinating policy responses, and mobilizing financial resources to support recovery efforts. International cooperation also enables joint research and development initiatives, technology transfers, and capacity-building programs that can contribute to overcoming the crisis and achieving sustainable development goals.

In summary, a universal development strategy can significantly contribute to combating the crisis in Europe and the USA by fostering economic resilience, promoting trade and investment, enhancing social welfare, addressing environmental sustainability, and fostering international cooperation. By implementing such a strategy, countries can work together to overcome the challenges they face, build back stronger and more sustainably, and ensure a resilient and inclusive future for their citizens.

b. Export Pessimism and Inward-Looking Development Strategy

Export pessimism refers to the belief that relying heavily on exports and international trade can make a country vulnerable to external shocks and economic instability. In contrast, an inward-looking development strategy focuses on domestic production and consumption, aiming to reduce dependency on foreign markets. Let's delve into these concepts in more detail, supported by relevant facts at the global level.

Export Pessimism:

Export pessimism arises from concerns about the risks associated with over-reliance on exports, such as fluctuations in global demand, volatility in commodity prices, and vulnerability to external economic shocks. Some key points to consider include:

1. Economic Vulnerability: Countries heavily dependent on exports may experience significant economic downturns during global recessions or when demand for their export goods and services declines. For example: During the global financial crisis in 2008-2009, many export-oriented economies experienced sharp contractions in their GDP growth rates due to reduced demand for their exports. The COVID-19 pandemic highlighted the vulnerability of export-dependent sectors, with disruptions in global supply chains and reduced international trade impacting economies worldwide.

2. Exposure to Price Volatility: Commodity-exporting countries, in particular, are susceptible to price fluctuations. Changes in global commodity prices can significantly affect their export revenues and economic stability. For instance: Oil-exporting countries experienced significant economic challenges when global oil prices plummeted in 2014-2016, leading to budget deficits, reduced investment, and economic slowdowns. Agricultural economies may face price volatility due to factors like weather conditions, market speculation, and changes in global trade policies, affecting their export earnings and agricultural sectors.

3. External Shocks and Dependence: Relying heavily on exports makes a country more susceptible to external shocks, including geopolitical conflicts, trade disputes, and changes in global economic conditions. For instance: Trade tensions between major economies, such as the USA and China, have led to increased uncertainties and disruptions in global supply chains, affecting export-oriented countries. Changes in trade policies, such as the

imposition of tariffs or trade barriers, can have adverse effects on countries heavily reliant on exports.

Inward-Looking Development Strategy:

An inward-looking development strategy focuses on domestic production and consumption as a means to reduce dependency on international trade. It seeks to protect domestic industries, foster self-sufficiency, and promote national interests. Here are some key points to understand:

1. Import Substitution: An inward-looking strategy often involves implementing policies to substitute imports with domestically produced goods. This can be achieved through protective measures such as tariffs, import quotas, or subsidies to shield domestic industries from foreign competition. Some countries have successfully pursued import substitution policies in specific sectors to nurture domestic industries and foster economic growth.

2. Diversification of Domestic Industries: An inward-looking approach encourages the development of a diverse range of domestic industries to reduce dependency on specific sectors or products. By fostering a broad-based industrial base, countries can enhance their economic resilience and reduce vulnerability to external shocks.

3. Promoting Domestic Consumption: Emphasizing domestic consumption can help stimulate economic growth and reduce reliance on external markets. Policies that promote income redistribution, social welfare programs, and investment in infrastructure can enhance domestic demand and drive economic expansion.

4. Technological Advancement and Innovation: An inward-looking strategy often prioritizes investment in research and development, education, and technological innovation to enhance domestic productivity and competitiveness. By developing advanced technologies domestically, countries can reduce their reliance on foreign technology and strengthen their industrial capabilities.

While there may be merits to an inward-looking strategy in certain contexts, it is important to note that excessive protectionism and isolation can limit access to international markets, inhibit technological advancements, and hinder the potential benefits of global trade and collaboration. In conclusion, export pessimism reflects concerns about the risks associated with over-reliance on exports, while an inward-looking development strategy emphasizes domestic production and consumption to reduce dependency on international trade. While these strategies may offer short-term benefits in certain circumstances, it is important to strike a balance between domestic focus and engagement with the global economy. The dynamic nature of the globalized world necessitates a nuanced approach that leverages the advantages of international trade, fosters domestic resilience, promotes technological advancements, and encourages sustainable development to navigate the complexities of the global economic landscape effectively.

European Scenario

Export pessimism and an inward-looking development strategy have contributed to Europe's efforts in combating development crises by addressing economic vulnerabilities and fostering domestic resilience. Firstly, export pessimism has driven European countries to diversify their export markets, reducing their reliance on specific regions and industries. For instance, European Union exports to non-EU countries grew by 61% between 2000 and 2019, diversifying their export destinations and reducing vulnerability to economic downturns in specific markets. Secondly, an inward-looking development strategy has promoted industrial diversification, enabling European countries to mitigate risks associated with sector-specific downturns. For example, Germany's focus on advanced manufacturing and innovation has helped it maintain a competitive edge and navigate economic challenges. Additionally, social welfare measures and inclusive growth policies have been prioritized, reducing inequality and addressing social challenges arising from development crises. For instance, Scandinavian countries, known for their inclusive welfare systems, have demonstrated resilience during economic downturns by providing support to vulnerable populations. By leveraging both export pessimism and an inward-looking development

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strategy, Europe has fostered economic resilience, enhanced competitiveness, and promoted social well-being in its efforts to combat development crises.

In addition to the aforementioned points, export pessimism and an inward-looking development strategy have provided Europe with several other benefits in combating development crises. Export pessimism has compelled European countries to focus on innovation and technological advancements, enabling them to enhance their competitiveness in global markets. For instance, countries like Sweden and Finland have invested significantly in research and development, leading to the emergence of successful high-tech industries and fostering economic growth. Moreover, the diversification of export markets has allowed European countries to tap into emerging economies and take advantage of their growing consumer bases. This has helped mitigate the negative impacts of economic downturns in traditional export destinations. For example, the European Union's trade with China has witnessed substantial growth, providing new opportunities for European exporters.

On the other hand, an inward-looking development strategy has promoted domestic job creation and reduced unemployment rates. By prioritizing domestic industries and implementing "Buy European" initiatives, European countries have aimed to stimulate economic growth and bolster their labor markets. This has had a positive impact on employment levels, supporting individuals and families during times of crisis. Furthermore, an inward-looking approach has allowed European countries to maintain greater control over their economic policies and reduce dependence on external factors. This has provided them with more flexibility in implementing measures to address specific development challenges and protect their domestic industries. Overall, the combination of export pessimism and an inward-looking development strategy has helped Europe combat development crises by fostering economic diversification, innovation, job creation, and greater economic autonomy. These approaches have provided European countries with the tools to navigate economic uncertainties, protect their industries, and promote sustainable growth even in the face of global challenges.

USA Scenario

In the context of the USA, export pessimism and an inward-looking development strategy have also played a role in addressing development crises. Here's a closer look at how these strategies have benefited the USA:

Export Pessimism in the USA:

Export pessimism in the USA has driven the country to diversify its export markets, reducing its reliance on specific trading partners. According to data from the U.S. Census Bureau, between 2000 and 2020, the share of U.S. goods exports to the top five trading partners, including Canada, Mexico, China, Japan, and Germany, decreased from 62% to 53%. This shift indicates a deliberate effort to explore new trade opportunities and reduce vulnerability to economic shocks in specific markets. The USA has actively pursued trade agreements with other countries and regions to expand its export reach. For example, the United States-Mexico-Canada Agreement (USMCA) replaced the North American Free Trade Agreement (NAFTA) and aimed to modernize and diversify trade relationships within North America. Additionally, the USA has been actively seeking trade agreements with countries in Southeast Asia, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), to access new markets and reduce dependence on any single region. These efforts reflect the USA's commitment to diversifying export markets and addressing export pessimism by broadening its trade relationships on a global scale.

Inward-Looking Development Strategy in the USA:

An inward-looking development strategy in the USA has emphasized domestic job creation and the strengthening of domestic industries. Here are some facts and figures that highlight the impact of this strategy:

1. "Buy American" Initiatives: The USA has implemented various "Buy American" initiatives, which prioritize domestic goods and services in government procurement. For example, the Buy American Act requires federal agencies to give preference to domestically

produced goods for government projects. This approach aims to stimulate domestic industries and create job opportunities for American workers.

2. Infrastructure Investment: The USA has recognized the importance of investing in infrastructure to drive economic growth and job creation. In 2021, the American Jobs Plan proposed investing $2.3 trillion in infrastructure over an eight-year period. This investment aims to modernize transportation networks, upgrade water systems, improve broadband connectivity, and enhance energy infrastructure. Such investments not only create jobs in the construction sector but also have long-term economic benefits by boosting productivity and competitiveness.

3. Reshoring Initiatives: In recent years, there has been a growing trend of reshoring, which refers to the return of manufacturing operations to the USA from overseas locations. According to the Reshoring Initiative, the USA saw a significant increase in reshoring activity, with over 1,400 companies bringing back manufacturing operations between 2010 and 2020. This shift is driven by factors such as rising overseas production costs, concerns about supply chain resilience, and a desire to support domestic manufacturing and job creation.

4. Job Creation: The focus on an inward-looking strategy in the USA is aimed at stimulating domestic job creation. According to the U.S. Bureau of Labor Statistics, the country added 1.9 million jobs in 2021, reflecting efforts to recover from the economic impact of the COVID-19 pandemic. Many of these job opportunities have been in sectors such as construction, manufacturing, and infrastructure-related industries, aligning with the objectives of the inward-looking development strategy.

By implementing "Buy American" initiatives, making significant infrastructure investments, promoting reshoring, and creating jobs, the inward-looking development strategy in the USA aims to revitalize domestic industries, strengthen the labor market, and promote sustainable economic growth. These measures not only address immediate development challenges but also contribute to long-term economic resilience and competitiveness.

Summary

In conclusion, the development crisis is a complex phenomenon that requires careful consideration and strategic approaches to overcome. Globalization, as a universal development strategy, has been instrumental in promoting economic integration and growth worldwide. It has facilitated the exchange of goods, services, and knowledge, leading to increased productivity and prosperity in many regions. However, the benefits of globalization have not been evenly distributed, and certain countries and regions have faced challenges and crises. This has necessitated the adoption of specific strategies to address these issues. Export pessimism and an inward-looking development strategy have played important roles in combating the crisis in Europe and the USA. In Europe, export pessimism has driven countries to diversify their export markets, reducing their vulnerability to economic downturns in specific regions. This diversification has not only expanded their reach but also fostered technological innovation and competitiveness. Additionally, an inward-looking development strategy has promoted industrial diversification, job creation, and the implementation of social welfare measures, resulting in more inclusive growth and resilience during crises. Similarly, in the USA, export pessimism has prompted a revaluation of export strategies and a focus on diversifying export markets. This has allowed the country to reduce its reliance on specific trading partners and enhance its global competitiveness. The inward-looking development strategy in the USA has prioritized domestic job creation, infrastructure investment, and reshoring initiatives. These measures have stimulated economic growth, supported industries, and created employment opportunities, contributing to the country's resilience in times of crisis. By leveraging both export pessimism and an inward-looking development strategy, Europe and the USA have been able to address the development crisis more effectively. These strategies have not only provided economic benefits but also promoted social well-being, inclusivity, and greater control over their economic policies. It is important to note that while these strategies have shown positive outcomes, a balanced approach is necessary. Striking a balance between engaging in

international trade and fostering domestic resilience is crucial for sustainable and inclusive development. By harnessing the potential of globalization while implementing targeted measures to address specific challenges, countries can navigate development crises and pave the way for long-term prosperity and stability.

Keywords

1. Development crisis: A complex phenomenon involving challenges and crises in economic and social development.
2. Globalization: The process of increased interconnectedness and integration of economies, societies, and cultures worldwide.
3. Universal development strategy: A broad approach aimed at promoting economic development and well-being on a global scale.
4. Export pessimism: A mindset of reduced confidence in exporting due to various factors, leading to a revaluation of export strategies.
5. Inward-looking development strategy: A focus on domestic industries, job creation, and self-sufficiency to stimulate economic growth.
6. Economic integration: The process of merging economic activities and policies among countries or regions to promote trade and cooperation.

Self Assessment

1. What is export pessimism?

A. The belief that exports can lead to economic growth and development.

B. The belief that imports can lead to economic growth and development.

C. The belief that exports can hinder economic growth and development.

D. The belief that imports can hinder economic growth and development

2. What is an inward-looking development strategy?

A. A strategy that focuses on exporting goods and services.

B. A strategy that focuses on importing goods and services.

C. A strategy that focuses on developing domestic industries and reducing reliance on imports.

D. A strategy that focuses on reducing exports to protect domestic industries

3. What is the main challenge in combating the crisis in Europe and the USA?

A. Lack of political will.

B. Lack of financial resources.

C. Lack of technological advancements.

D. Lack of natural resources

4. What is the main criticism of globalization as a universal development strategy?

A. It promotes economic growth and development in all countries.

B. It promotes economic growth and development only in developed countries.

C. It hinders economic growth and development in developing countries.

D. It has no impact on economic growth and development.

5.   What is the role of international organizations in combating the development crisis?

A. They provide financial assistance to developing countries.

B. They promote globalization as a universal development strategy.

C. They promote inward-looking development strategies.

D. They have no role in combating the development crisis

6.   What is the role of international organizations in promoting globalization as a universal development strategy?

A. They provide financial assistance to developed countries.

B. They promote inward-looking development strategies.

C. They promote globalization as a universal development strategy.

D. They have no role in promoting globalization as a universal development strategy

7.   What is the main challenge faced by developing countries in adopting a universal development strategy based on globalization?

A. The inability to attract foreign investment and capital.

B. The negative effects of globalization on local industries and workers.

C. The lack of support from developed countries and international organizations.

D. The high levels of corruption and political instability in developing countries

8.   What is the role of financial flows in the development crisis?

A. Financial flows promote economic development by increasing investment and capital.

B. Financial flows have no impact on economic development.

C. Financial flows hinder economic development by increasing national debt.

D. Financial flows hinder economic development by reducing government spending

9.   What is the role of international trade in globalization as a universal development strategy?

A. International trade promotes economic growth and development only in developed countries.

B. International trade has no impact on economic growth and development.

C. International trade promotes economic growth and development in all countries.

D. International trade promotes economic growth and development only in developing countries.

10. What was India's economic policy in the 1950s and 1960s?

A. Export-oriented development strategy.

B. Import substitution and inward-looking development strategy.

C. Liberalization and globalization strategy.

D. Privatization and deregulation strategy.

11. What was the main objective of Japan's inward-looking development strategy?

A. To promote exports and reduce trade deficits

B. To protect domestic industries and promote import substitution

C. To increase foreign investment and capital inflows

D. To reduce government intervention and promote private enterprise

12. What was the impact of the structural adjustment programs on the economies of Europe and the USA?

A. They led to high rates of economic growth and development

B. They had no impact on economic growth and development

C. They led to low rates of economic growth and development

D. They led to negative rates of economic growth and development

13. What is a key challenge facing India in its pursuit of a universal development strategy?

A. Balancing economic growth with social and environmental concerns

B. Attracting enough foreign investment and promoting exports

C. Reducing government intervention in the economy

D. Protecting domestic industries and reducing imports

14. What is the main policy response to the development crisis in Europe and the USA?

A. Increase foreign aid and investment to promote economic growth and development

B. Promote import substitution and protectionism to protect domestic industries

C. Rely on exports and trade liberalization to promote economic growth and development D. Increase government spending and investment in infrastructure and education

15. What is the main cause of the development crisis in Europe and the USA?

A. Rapid population growth

B. Economic recession and high unemployment rates

C. Political instability and conflict

D. Lack of natural resources

Answers for Self Assessment

1.	C	2.	C	3.	B	4.	C	5.	A
6.	C	7.	B	8.	C	9.	C	10.	B
11.	B	12.	C	13.	A	14.	D	15.	B

Review Questions

1. How has globalization impacted the development crisis worldwide, and what challenges has it presented?

2. Discuss the potential benefits and drawbacks of a universal development strategy in addressing the development crisis.

3. How does export pessimism affect a country's economic resilience and diversification of markets?

4. Assess the effectiveness of inward-looking development strategies in promoting domestic job creation and economic growth.

5. Compare and contrast the approaches taken by Europe and the USA in combating the development crisis through export pessimism and inward-looking strategies.

6. Discuss the role of technological innovation in mitigating the effects of the development crisis and fostering competitiveness.

7. Critically evaluate the balance between engaging in international trade and promoting domestic resilience as a strategy to address the development crisis.

Further Readings

- "Globalization and Its Discontents" by Joseph E. Stiglitz
- "The Retreat of Western Liberalism" by Edward Luce
- "The Great Convergence: Information Technology and the New Globalization" by Richard Baldwin
- "Globalization and Its Critics: Perspectives from Political Economy" edited by David Held and Anthony McGrew
- "The New Development Economics: Post Washington Consensus Neoliberalism" by Ben Fine and Jomo Kwame Sundaram
- "The End of Poverty: Economic Possibilities for Our Time" by Jeffrey D. Sachs

Unit 19: 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 to 1914 are regarded as the classical gold standard period. London was the center of international trade and finance, and the major currencies, led by the British pound, were convertible into gold at specified parities. During this time, there were no major currency crises, and no major currencies had to be discounted or revalued. International trade and finance proceeded without incident; goods and factors moved freely across national borders. Although trade restrictions were not unheard of, they were not typically utilized for the sake of balance of payments adjustments. Deficits and surpluses were to be addressed by deflation and inflation within the economy.

During this time, international liquidity consisted of gold, and the British pound served as the reserve currency. The British pound was a significant contributor to international liquidity, and it was regularly utilized to meet balance of payments commitments. The time was marked by currency rates that were largely stable. On the eve of World War I, this was the condition of the global monetary system. World War I ended all of this.

The interwar years were marked by worldwide monetary and exchange rate disorder. The gold standard was abandoned, trade and tariff limitations gained significance, exchange rates ceased to be stable, and competitive exchange rate movements and beggar-my-neighbor policies became the norm. It was deemed necessary to put an end to all of this and establish a system of international monetary arrangements in which countries could pursue full employment and stable prices without causing issues for others.

The Bretton Woods System was supported by two pillars: the preservation of stable currency rates and an IMF-instituted global credit system. In order to ensure orderly exchange rate adjustments, the framers of the Bretton Woods Agreement required IMF clearance for exchange rate changes above 10 percent. The Fund would only authorize modifications more than 10 percent if it was

convinced that a "fundamental imbalance" existed in the balance of payments of the member country. The second pillar of the system was the international liquidity arrangement.

There was to be a pool of member countries' currencies, donated on the basis of the fixed quota system for member countries, allowing the Fund to function as a "lender of last resort."

The Bretton Woods System never operated as anticipated by its creators. Specifically, the Bretton Woods System was threatened by two changes: (a) the increased role of the U.S. dollar as a worldwide currency and a widely acknowledged asset, and (b) the exchange rate rigidity that grew over time. Please explain briefly these two problem areas.

At the end of World War II, the United States possessed more than three-quarters of the world's monetary gold and fifty percent of the world's gross national product. For these reasons, the US dollar became the international currency. The world's countries began to retain their official reserves in US dollars. Dollar holdings (as reserves) earned interest, whereas gold holdings (as reserves) did not. Therefore, the US dollar was superior to gold. After 1958, the US balance of payments deficits kept the global monetary system liquid. The increasing accumulation of US dollars by foreign nations, particularly Europe, constituted a danger to the dollar's status as the international reserve currency.

The second threat to the Bretton Woods System's stability was the reality-based rigidity of exchange rates. Despite initial exchange rate changes in the early 1950s, by the 1960s the global monetary system had established a system defined by continuous deficits and surpluses. The Bretton Woods System failed to achieve exchange rate stability in equilibrium.

The accumulation of US dollars by foreign central banks was directly attributable to the large and chronic US payments deficits. Even as early as 1964, the foreign countries' dollar holdings were equal to the United States' total gold reserves. This excessive buildup of US dollars in foreign countries resulted in foreign central banks' reluctance to maintain US dollars as currency reserves. After 1968, the dollars' worth began to decline, and the price of gold began to skyrocket. In March 1968, at the request of the United States, the United States and European nations agreed to establish the so-called Two-tier Gold Market. This measure isolated the private gold market from the official gold market on which central banks traded gold. On the private market, the price of gold may climb above $35 per ounce, but the central banks continued to trade gold at a fixed price of $35 per ounce. Since the passage of the Gold Reserve Act in 1934, the U.S. government has committed to buying or selling limitless quantities of gold at a set price of $35 per ounce. The European nations decided not to exert pressure on the United States to exchange its dollar reserves into gold. In 1968, the US currency became nearly unconvertible to gold.

19.1 Meaning of International Monetary System

The international monetary system is the mechanism prevalent on global foreign currency markets that finances international trade and capital flows and determines exchange rates. Following is a discussion of the worldwide financial system since the end of World War II.

19.2 The Bretton Woods System

During the years preceding World War I, nearly all major national currencies were pegged to the international gold standard with fixed exchange values. During World War I, this technique was discontinued. From the end of the war till 1925, there were shifting exchange rates. In 1925, efforts were made to return to the gold standard. However, it fell as a result of the Great Depression. Numerous nations resorted to protectionism and competitive devaluations, so reducing international trade by virtually half. However, depression eliminated entirely during World War II.

In July 1944, the allies gathered at Bretton Woods, in the United States, to escape the rigidity of the gold standard and the instability of the 1930s in international trade and finance, and to promote free trade. The current International Monetary Fund (IMF) devised an adjustable peg system as the new system.

Under the Bretton Woods system, exchange rates between nations were established or tied at $ 35 per ounce of gold or the US dollar. This referred to a fixed exchange rate system with fluctuations in the exchange rate within a band or range of 1% above to 1% below par. But these modifications were unavailable to the United States, which was required to maintain the dollar's gold value. If the exchange rate reached either band, the monetary authorities were required to buy or sell dollars

against their respective currencies. Where there was "fundamental disequilibrium" (i.e. persistent and huge deficits or surpluses) in BOP, large adjustments might be made with the permission of the IMF and other countries. With the exception of a transitional period, member states were prohibited from imposing limitations on payments and commerce. They were permitted to store a portion of their foreign reserves in gold and the remainder in dollars. These reserves were intended to allow member nations to incur short deficits or surpluses while maintaining stable exchange rates. In the event of a BOP deficit, dollar sales resulted in a reserve outflow, while dollar purchases resulted in a reserve inflow.

Under the Bretton Woods arrangement, reserve outflows were a source of concern. To fix the BOP deficit, the IMF insisted on expenditure reduction strategies and devaluation. In addition, temporary BOP deficits were covered by borrowing from the Fund for a period of three to five years. A country's ability to borrow from the Fund would depend on the size of its quota. The IMF loans were issued in convertible currencies.

The first 25% of its allotment was automatically allocated to the gold tranche, while the remaining 75% was allocated to credit tranches with high interest rates. The World Bank (or IBRD) was established in 1946 to provide long-term loans, followed by the International Finance Corporation (IFC) in 1956 and the International Development Association (IDA) in 1960. In January 1948, the General Agreement on Tariffs and Trade (GATT) went into effect to eliminate trade restrictions. In order to supplement its resources and meet the objectives of the International monetary system, the and began borrowing from the eleven industrialized countries under General Agreements to Borrow (GAB) in October 1962. In addition, it established Special Drawing Rights (SDRs) in January 1970 to bolster foreign reserves and meet its members' liquidity needs. From the 1950s to the mid-1960s, the Bretton Woods system ran smoothly. During this time period, global output increased, and with the GATT's decrease of tariffs, global commerce also increased.

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 led to its eventual collapse. It had an adjustable peg system that was within plus or minus 1% of $35 par value. In the event of fundamental disequilibrium, a nation may discount its currency with IMF agreement. However, nations were hesitant to weaken their currencies since they needed to sell more goods to pay for more expensive imports from other nations. This prompted nations to rely on deflation to remedy BOP imbalances via expenditure-cutting monetary-fiscal policies. The United Kingdom frequently returned to deflation, as in 1949, 1957, and 1967.

2. The Triffin Dilemma : Since the dollar operated as a means of exchange, a unit of account, and a store of value within the IMF system, every country desired to raise its dollar reserves, resulting in an excess of dollar holdings. As a result, the U.S. gold stock and balance of payments continued to decrease. In 1960, Robert Triffin cautioned that the demand for global liquidity was outpacing the supply since the incremental supply of gold was growing slowly. As a result of the dollar's convertibility into gold, the supply of US dollars would fall short of countries' liquidity requirements. This would compel the United States to forsake its pledge to convert currencies to gold. This is the Triffin Dilemma, which precipitated the breakdown 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 trade, BOP deficits (and surpluses) of countries increased. This required the availability of gold and the dollar. However, gold production in Africa was barely increasing. This increased the dollar's demand and holdings. Additionally, countries desired to store more dollars because they earned interest. As the dollar supply was insufficient relative to the

liquidity requirements of countries, the United States produced extra dollars to pay for its deficits, which other nations took as reserves.

4. Mistakes in US Policies : In the 1960s, the BOP deficits of the United States grew substantially worse. The policies adopted by the U.S. administration in response to global crises eventually contributed to their escalation. In the 1960s, rising US government spending on the Vietnam War, the US space programme, and the "Great Society" (social welfare) programme resulted in a significant cash outflow from the country. However, the Federal Reserve did not devalue the currency. Instead, monetary and fiscal measures were implemented to reduce the BOP deficit.

5. Destabilizing Speculation : Since countries with "fundamental disequilibrium" in BOP were unwilling to lower their currencies and need time to obtain IMF permission, speculators were able to engage in dollar speculation. When devaluations were implemented, they occurred in greater quantities than had been anticipated. This was attributable to destabilizing speculation, which rendered monetary-fiscal measures ineffective for controlling capital flows. This was the direct cause for the 1967 devaluation of the British pound.

6. Crisis of Confidence and Collapse : The immediate cause of the breakdown of the Bretton Woods System was the emergence of a dollar confidence crisis. The British pound was devalued in November 1967. With the emergence of a separate price on the open market, the global gold market was no longer under control. The direct cause of the breakdown of the Bretton Woods System was the March 1971 rumour that the United States would devalue the dollar. This caused a massive capital flight from the United States. When certain small European central banks attempted to convert their dollar holdings into gold at the US on August 15, 1971, the US blocked the conversion of dollars into gold. It refused to intervene in foreign exchange markets to ensure stable exchange rates and imposed a 10 percent import surcharge. Thus, the breakdown of the Bretton Woods System was mostly due to liquidity, adjustment, and confidence issues. The increase in liquidity (foreign reserves) resulted from the United States' BOP deficits. As a result of the United States' inability to reduce its deficits and the accumulation of superfluous dollars in foreign nations, there was a crisis of trust in the dollar, and the Bretton Woods System collapsed.

Thus, the main points of the post-war system evolving from the Bretton Woods Conference were as follows:

1. A new institution, the International Monetary Fund (IMF), would be established in Washington DC. Its purpose would be to lend foreign exchange to any member whose supply of foreign exchange had become scarce. This lending would not be automatic but would be conditional on the member's pursuit of economic policies consistent with the other points of the agreement, a determination that would be made by IMF.

2. The US dollar (and, de facto, the British pound) would be designated as reserve currencies, and other nations would maintain their foreign exchange reserves principally in the form of dollars or pounds.

3. Each Fund member would establish a par value for its currency and maintain the exchange rate for its currency within one per cent of par value. In practice, since the principle reserve currency would be the US dollar, this meant that other countries would peg their currencies to the US dollar, and, once convertibility was restored, would buy and sell US dollars to keep market exchange rates within the 1 per cent band around par value.

The United States, meanwhile, separately agreed to buy gold from or sell gold to foreign official monetary authorities at $35 per ounce settlement of international financial transactions. The US dollar was thus pegged to gold and any other currency pegged to the dollar was indirectly pegged to gold at a price determined by its par value.

4. A Fund member could change its par value only with Fund approval and only if the country's balance of payments was in "fundamental disequilibrium." The meaning of fundamental disequilibrium was left unspecified but everyone understood that par value changes were not to be used as a matter of course to adjust economic imbalances.

5. After a post-war transition period, currencies were to become convertible. That meant, to anyone who was not a lawyer, that currencies could be freely bought and sold for other foreign currencies. Restrictions were to be removed and, hopefully, eliminated. So, in order to keep market exchange rates within 1 per cent of par value, central banks and exchange authorities would have to build up a stock of dollar reserves with which to intervene in the foreign exchange market

6. The Fund would get gold and currencies to lend through "subscription." That is, countries would have to make a payment (subscription) of gold and currency to the IMF in order to become a member. Subscription quotas were assigned according to a member's size and resources. Payment of the quota normally was 25 per cent in gold and 75 per cent in the member's own currency. Those with bigger quotas had to pay more but also got more voting rights regarding Fund decisions.

The Bretton Woods System worked without major changes from 1947 till 1971. During this period, the fixed exchange rates were maintained by official intervention in the foreign exchange markets. International trade expanded in real terms at a faster rate than world output and currencies of many nations, particularly those of developed countries, became convertible. The stability of exchange rates removed a great deal of uncertainty from international trade and business transactions thus helping the countries to grow. Also, the working of the system imposed a degree of discipline on the economic and financial policies of the participating nations. During the 1950s and 1960s, the IMF also expanded and improved its operation to preserve the Bretton Woods System. The system, however, suffered from a number of inherent structural problems. In the first place, there was much imbalance in the roles and responsibilities of the surplus and deficits nations. Countries with persistent deficits in their balance of payments had to undergo tight and stringent economic policy measures if they wanted to take help from the IMF and stop the drain on their reserves. However, countries with surplus positions in their balance of payments were not bound by such immediate compulsions. Although sustained increases in their international resources meant that they might have to put up with some inflationary consequences, these options were much more reasonable than those for the deficit nations. The basic problem here was the rigid approach adopted by the IMF to the balance of payments disequilibria situation. The controversy mainly centres around the 'conditionality issue,' which refers to a set of rules and policies that a member country is required to pursue as a prerequisite to using the IMF's resources. These policies mainly try and ensure that the use of resources by concerned members is appropriate and temporary. The IMF distinguishes between two levels of conditionality – low conditionality where a member needs funds only for a short period and high conditionality where the member country wants a large access to the Fund's resources. This involves the formulation of a formal financial programme containing specific measures designed to eliminate the country's balance of payments disequilibrium. Use of IMF resources, under these circumstances, requires IMF's willingness that the stabilization programme is adequate for the achievement of its objectives and an understanding by the member to implement it.

19.3 **The Present International Monetary System**

Beginning in March 1973, India, Canada, Japan, Switzerland, the United Kingdom, and a number of smaller nations utilized floating exchange rates. However, the "joint float" of the EEC countries remained after March 1973 and was now known as the "snake in the lake" due to the absence of a band within which EEC currencies might fluctuate relative to other currencies. In March 1979, the

European Monetary System (EMS) was established, resulting in the creation of the European Currency Unit (ECU), a "basket" currency comprised of the major European currencies. The EMS restricts the internal exchange rate fluctuations of its member nations to no more than 2.25 percent from the "central rates," with the exception of Italy, whose lira is permitted to fluctuate up to 6 percent.

In the meantime, the Jamaica Agreement of January 1976 (ratified in April 1978) formalized 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 saw a precipitous depreciation that, by late 1978, had reached such dangerous proportions that the United States government adopted a strategy of major intervention to keep the dollar's value from falling further" By 1978, the managed floating exchange rate arrangement had become permanent. By 1978's Second Amendment to the IMF Charter, members are no longer required to maintain and establish par values with gold or the dollar. The Fund has no control over the member countries' exchange rate adjustment programmes. However, it conducts international "monitoring" of its members' exchange rate policy. .

The Second Amendment has diminished gold's role in the global monetary system by (a) abolishing the official price of gold; (b) delinking it from the dollar in exchange arrangements; (c) eliminating the Fund's and its members' obligations to transfer or receive gold; and (d) selling a portion of the 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 current international monetary system of floating exchange rates is one of "controlled floating" rather than freely flexible exchange rates. It has seldom operated independently of government involvement. Periodic government interference has led to the system being referred to as a "managed" or "dirty" floating system. In 1977, when the intervention was extremely weighty, it was referred to as a "filthy" float. When governments do not intervene, the float is "clean." However, the likelihood of a clean float is quite low. Thus, a system of managed floating exchange rates is forming in which central banks attempt to limit variations of exchange rates around "normal" rates, despite the fact that the Fund's Second Amendment makes no reference of normal rates.

"The current international monetary system has also evolved in a number of significant ways, including the new allocation of SDRs, the increased nations' quota in the IMF, the renewal of the General Agreements to Borrow (GAB), the elimination of the official gold price, and the formation of the European Monetary System (EMS) and the Euro Currency."

The United States is the most influential nation on the global monetary system. It has let the dollar to float relative to other currencies, with sporadic interventions when the currency has reached extreme highs or lows. By the September 1985 Plaza Accord, the G-5 (United States, United Kingdom, Germany, Japan, and France) agreed to intervene to lower the dollar when it was extremely high (appreciating). Subsequently, the dollar declined significantly against the yen, by more than 50 percent. By early 1987, the dollar had become undervalued, and in accordance with the Louvre Accord, the G-7 (G-5 plus Canada and Italy) countries committed to cooperate in maintaining their currency rates close to their then-current levels. The Louvre Accord stabilized exchange rates for the remainder of the year. Since then, there appears to be a consensus that exchange rates should be mostly stabilized, but there is little overt collaboration between nations."

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.

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 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.

Establishing Target Zones: Williamson advocated for the establishment of goal zones within which volatility in the exchange rates of major currencies may be tolerated. According to him, the equilibrium exchange rate should be determined by the forces of demand and supply. The top target zone should be 10 percent above the equilibrium exchange rate, while the lower target zone should be 10 percent below the equilibrium exchange rate. Through state intervention, the currency rate should not be permitted to fluctuate outside of the two goal zones. In February 1987, the five largest developed nations agreed, under the Louvre Agreement, to establish target zones for the stability of their currencies' exchange rates. Despite official action by these nations, exchange rates continued to fluctuate within wider ranges than those agreed upon at the Louvre. Since then, Williamson's concept has been dismissed as impractical. .

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.

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. Richard Cooper proposes a worldwide central bank with a global currency that would function as a global lender of last resort. Jaffrey Sachs suggests the establishment of an international bankruptcy court with jurisdiction over nations. George Soros believes that the IMF should establish external financial ceilings for each country, above which private capital access need not be guaranteed. However, mandated insurance should be provided by an international credit insurance business. Paul Krugman advocates the reinstatement of capital controls as the "least terrible solution" to a global economic crisis.

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.

Summary

As opposed to developmental capital, international liquidity is the total of official foreign reserves held by the world's governments and the IMF. International liquidity is a notion related to countries' balance of payments, but not their economic development. However, there will be an indirect relationship between international liquidity and economic development, as the latter is directly tied to the balance of payments position of the countries, particularly the so-called Third World's undeveloped nations.

It is vital to maintain a particular level of international liquidity for international trade and monetary transactions to flow smoothly. A lack of international liquidity impedes the progress of international trade, whereas an excess of international liquidity would result in monetary expansion and a global inflationary wave. Today's globe is defined by insufficiency rather than excess of international liquidity.

The international liquidity crisis can be resolved by increasing international reserves such as gold and reserve assets, especially SDRs, through international agreements. This has its own limitations, which are typically related to supply constraints. The only long-term solution to the international liquidity problem, especially for Third World countries with enormous balance of payments deficits, lies in the willingness of surplus countries in the developed world to implement policy

steps to lower their balance of payments surpluses. Additionally, this will make the world less protectionist.

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 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. As a measure of international reserves and exchange rates, the SDR is increasingly replacing gold, the US dollar, and other reserve assets. The Bretton Woods System no longer exists, and no replacement has been established.

SDRs are a new source of international liquidity, comparable to the discovery of new gold mines. The IMF remains the primary source of international money.

Changes in the International Monetary System have been driven largely by the rapid growth of private international capital flows, which first overwhelmed the Bretton Woods fixed exchange rate system, and, since the 1980s, have had especially strong effects on the emerging market countries.

Increasingly the discretion of national policymakers is constrained by international capital markets, which magnify the rewards for good policies and the penalties for bad policies. But markets may, on occasion, overreact by responding late and excessively to change in underlying conditions.

The International Monetary System has had to adapt to the increasing role of private capital flows. That process was evident in the shift towards flexible exchange rates among the major currencies three decades ago, and it continues today, as we absorb and react to the lessons of the emerging market crises of the last decade.

The gold standard worked well until World War I interrupted trade flows and disturbed the stability of exchange rate for currencies. The inter-war years from 1914-1944 were characterized by political instabilities and financial crisis.

The Bretton Woods System, which played a major emphasis on the stability of exchange rates, worked from 1945–1972. However, it came under mounting pressure as the post-war growth of international trade was complemented by an even more dramatic expansion of cross-border capital flows. These starkly revealed the difficulty of fixed exchange rate, an open capital account, and a monetary policy dedicated to domestic economic goals. With the leading countries unwilling to subordinate domestic policies to maintenance of the exchange rate, the fixed exchange rate regime among the major economies gave way.

Keywords

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

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.

Self Assessment

1. The international monetary system can be defined as the institutional framework within which
   A. International payments are made
   B. Movement of capital is accommodated.
   C. Exchange rates among currencies are determined.
   D. All of above

2. Gresham's Law in economics relates to
   A. Supply and Demand
   B. Circulation of currency
   C. Consumption and supply
   D. Distribution of goods and services

3. The international monetary system went through several distinct stages of evolution. These stages are summarized, in alphabetic order, as follows:

i.   Bimetallism
ii. Bretton woods system
iii. Classical gold standard
iv. Flexible exchange rate regime
v.   Interwar period

A. (iii), (i), (iv), (ii), (v)
B. (i), (iii), (v), (ii), (iv)
C. (v), (i), (iii), (ii), (iv)
D. (v), (iii), (iv), (ii), (i)

4. What are the requirements of good international monetary system (IMS)
A. A good system must be able to adjust imbalances in balance of payments quickly and at a relatively lower cost
B. the system must be able to keep exchange rates relatively fixed and people must have confidence in the stability of the system
C. The system must be able to provide enough reserve assets for a nation to correct its balance of payments deficits without making the nation run into deflation or inflation
D. All of the above

5. During the period of the classical gold standard (1875-1914) there were
A. Highly volatile exchange rates.
B. Volatile exchange rates.
C. Moderately volatile exchange rates.
D. Stable exchange rates.

6. Which of the following is not the goal of the Bretton Woods conference?
A. Intended to govern currency regulations and establish legal obligations
B. Promote investment of capital
C. Set a standard for exchange rates
D. Establish international monetary cooperation

7. What was the desire behind the Bretton Woods Agreement?
A. A desire to put an end to the Second World War
B. A desire to eradicate the causes that led to the Second World War
C. A desire for creating a system of fluctuating currencies
D. A desire for the abolition of different currencies

8. What was the agreement for Bretton Woods System?
A. Fixed Exchange Rate
B. US Dollar as reserve currency
C. US dollar was pegged to gold at $35 an ounce
D. All of the above

9. Which were the two institutions that were instituted during the Bretton Woods System era?
A. World Trade Organization and World Bank
B. International Monetary Fund and World Bank
C. World Trade Organization and United Nations
D. International Monetary Fund and World Trade Organization

10. When Bretton Woods System was created?
A. 1955
B. 1944
C. 1956
D. 1942

11. Choose the false statement among the following statements:
A. The Bretton Woods Conference was held in 1944 in Canada
B. Silver supplemented gold introducing 'bimetallism'

   C. Gold standard was the epitome of the fixed exchange rate system

   D. The Gold Standard: 1870 to the outbreak of the First World War in 1914

12. The Smithsonian Agreement of 1971 is related to?

A. Moving from fixed to floating exchange rate

B. Widening the permissible band of the exchange rates to 2.5 per cent above or below the new 'central rates'

C. Tackle shortage of liquidity during the Great Depression

D. Bop crisis faced by countries after fall of the Bretton Woods System

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C. Gold standard was the epitome of the fixed exchange rate system

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B. Widening the permissible band of the exchange rates to 2.5 per cent above or below the new 'central rates'

C. Tackle shortage of liquidity during the Great Depression

D. Bop crisis faced by countries after fall of the Bretton Woods System

15. In the formation of the European Monetary System, an attempt was made to allow for the problems of particular countries by allowing:

A. Members freely to choose to join in the broad band of the system

B. Marginal intervention in support of currencies

C. Some member currencies to float

D. Some members to join in the broad band

Answer for Self Assessment

1.	D	2.	D	3.	B	4.	D	5.	D
6.	B	7.	B	8.	D	9.	B	10.	B
11.	A	12.	B	13.	A	14.	B	15.	D

Review Questions

1. What do you mean by the monetary system? Discuss the international monetary system.

2. Write a short note on Bretton Wood System.

3. What are the causes of the breakdown of the Bretton Wood System? Discuss.

4. What are the components of the international monetary system?

5. Why do nations need international monetary systems?

Further Readings

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Unit 20: Emerging International Monetary Systems with Special Reference to Post

Objectives

- Know how the present international monetary system works
- Identify the major international economic problems facing the world today

Introduction

An international monetary system (sometimes referred to as an international monetary order or regime) refers to the rules, customs, instruments, facilities, and organizations for effecting international payments. International monetary systems can be classified according to the way in which exchange rates are determined or according to the form that international reserve assets take. Under the exchange rate classification, we can have a fixed exchange rate system with a narrow band of fluctuation about a par value, a fixed exchange rate system with a wide band of fluctuation, an adjustable peg system, a crawling peg system, a managed floating exchange rate system, or a freely floating exchange rate system. Under the international reserve classification, we can have a gold standard (with gold as the only international reserve asset), a pure fiduciary standard (such as a pure dollar or exchange standard without any connection with gold), or a gold-exchange standard (a combination of the previous two).

The various classifications can be combined in various ways. For example, the gold standard is a fixed exchange rate system. However, we can also have a fixed exchange rate system without any connection with gold, but with international reserves comprised of some national currency, such as the U.S. dollar, that is no longer backed by gold. Similarly, we can have an adjustable peg system or a managed float with gold and foreign exchange or with only foreign exchange as international

reserves. Under a freely floating exchange rate system, there is theoretically no need for reserves since exchange rate changes automatically and immediately correct any balance-of-payments disequilibrium as it develops. Throughout the period of our analysis, most of the international monetary systems possible were in operation at one time or another or for some nations, as described in this chapter.

A good international monetary system is one that maximizes the flow of international trade and investments and leads to an "equitable" distribution of the gains from trade among the nations of the world. An international monetary system can be evaluated in terms of adjustment, liquidity, and confidence. Adjustment refers to the process by which balance-of-payments disequilibria are corrected. A good international monetary system is one that minimizes the cost of and the time required for adjustment. Liquidity refers to the amount of international reserve assets available to settle temporary balance-of-payments disequilibria. A good international monetary system is one that provides adequate international reserves so that nations can correct balance-of-payments deficits without deflating their own economies or being inflationary for the world as a whole. Confidence refers to the knowledge that the adjustment mechanism is working adequately and that international reserves will retain their absolute and relative values

We examine the gold standard as it operated from about 1880 to 1914 and the experience between World War I and World War II. The gold standard was a fixed exchange rate system with gold as the only international reserve asset. The interwar period was characterized first by a system of flexible exchange rates and subsequently by the attempt to reestablish the gold standard—an attempt doomed to failure. Sections 21.3, 21.4, and 21.5 examine the establishment, operation, and collapse of the Bretton Woods system, the fixed or adjustable peg gold-exchange standard that operated from the end of World War II until August 1971. From then through March 1973, an adjustable peg dollar standard prevailed. Section 21.6 examines the operation of and the problems facing the present managed floating exchange rate system. Finally, the appendix presents the composition and value of international reserves from 1950 to 2011.

20.1 Reforms of the International Monetary systems

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 characterized 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 stabilizing exchange rates for the rest of the year. Since then there seems to have been a consensus that exchange rates should be broadly stabilized, 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.

Suggestions to Reform The Present 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

- 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 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.

- 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.

- 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.

- 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.

- Richard Cooper suggests a global central bank with a global currency which should be a global lender of last resort.

- Jaffrey Sachs proposes the creation of an international bankruptcy court which should deal with countries.

- 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.

- Paul Krugman suggests reintroduction of capital controls as a "least bad response" to an international crisis.

- 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.

20.2 Portfolio and Foreign Direct Investments

Foreign direct investment (FDI) refers to investment in a foreign country where the investor retains control over the investment. It typically takes the form of starting a subsidiary, acquiring a stake in an existing firm or starting a joint venture in the foreign country. Direct investment and management of the firms concerned normally go together. If the investor has only a sort of property interest in investing the capital in buying equities, bonds, or other securities abroad, it is referred to as portfolio investment. That is, in the case of portfolio investments, the investor uses his capital in order to get a return on it, but has no much control over the use of the capital. Foreign portfolio investment (FPI), thus, is investment by individuals, firms, or public bodies (like governments or government organisations) in financial instruments (such as stocks and government bonds).

FDI may take the form of:

1. Green-field investment, i.e. establishing an entirely new enterprise in the foreign market.

2. M&A, i.e. merging or acquiring an existing firm in the foreign country. In recent years, cross-border M&A has been the major driver of FDI.

UNCTAD s World Investment Report defines foreign direct investment (FDI) as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate), FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the

initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities.

The ownership level required in order for a direct investment to exist is 10 per cent of the voting shares.

There are two related but different measures of FDI: FDI flows and FDI stock. FDI flows refer to the new FDI during a specified period while the FDI stock measures the total amount of FDI exists at a point in time. These stocks are the sums of past flows of FDI.

Flows of FDI comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to an FDI enterprise, or capital received from an FDI enterprise by a foreign direct investor. FDI has three components: equity capital, reinvested earnings and intra-company loans.

According to the World Bank, foreign direct investment is net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, re-investment of earnings, other long-term capital, and short-term capital, as shown in the balance of payments.

FDIs are governed by long term considerations because these investments cannot be easily liquidated. Hence factors like long term political stability, government policy, industrial and economic prospects etc. influence the FDI decision, However, portfolio investments, which can be liquidated fairly easily, are influenced by short term gains. Portfolio investments are generally much more sensitive than FDIs. Direct investors have direct responsibility with the promotion and management of the enterprise. Portfolio investors do not have such direct involvement with the promotion and management.

There are mainly two routes of portfolio investments in India, viz., by Foreign Institutional Investors (FIIs) like mutual funds and through Global Depository Receipts (GDRs), American Depository Receipts (ADRs) and Foreign Currency Convertible Bonds (FCCBs).

GDRs/ADRs and FCCBs are instruments issued by Indian companies in the foreign markets for mobilising foreign capital by facilitating portfolio investment by foreigners in Indian securities. Since 1992, Indian companies, satisfying certain conditions, are allowed to access foreign capital markets by Euro issues.

20.3 International Debt Crisis

The problem of external debt of LDCs is a serious one because they depend heavily on inflows of capital from abroad to finance their development needs. LDCs being poor countries, their rates of domestic savings and investment are low. They woefully lack in economic and social overhead capital and basic and key industries. To accelerate the rate of economic development, they borrow to import capital goods, components, raw materials, technical know-how, etc. Besides, they also borrow to finance consumer goods to meet the requirements of the growing population. Their exports being limited to a few primary products, they borrow to supplement and increase their domestic resources. These lead to huge current account balance of payments (BOP) deficits. A current account BOP deficit means that the country is borrowing from abroad. To finance its BOP deficit, the LDC borrows by selling bonds abroad, from commercial banks abroad, from international financial institutions like the IMF, World Bank, IFC, etc., and from private foreign firms. In all such cases, the country accumulates external debt which it has to repay abroad in the future in the form of interest and principal.

Causes of the Debt Crisis

The following have been the causes of the international debt crisis:

1. Oil-Price Shocks. The principal cause of the international debt crisis of the 1970s and 1980s was the increase in oil prices in 1973 and 1979. The first oil shock to the international economy was an increase in oil prices by more than four-fold and the second doubled them. This caused a large increase in the import bills of non-oil producing LDCs. Simultaneously, their export earnings fell due the recession in the developed countries. Consequently, the current account BOP deficit of oil

importing LDCs increased much. Their ratio of debt to GNP rose from 15.4% in 1974 to 37.6% in 1986.

2. Bad Macro-economic Management. To cope with the problem of BOP deficit, the LDCs began macro-economic management of their economies. They continued to expand their expenditures to meet demand for their economic development. This led them to adopt expansionary fiscal and monetary measures and to large borrowings from abroad. This resulted in inflation and external debt. As the Bretton Woods System of fixed exchange rates had collapsed in 1973, the LDCs adopted new exchange rate strategies like the crawling peg and managed floating in order to avoid real appreciation of their currencies in the face of rising inflation. They aimed at a declining rate of depreciation against the dollar. For this, they adopted trade reform measures to boost exports, and encouraged the inflow of private capital through international banks. These further increased their external debt.

3. Policies of Developed Countries and their Banks. The policies adopted by the developed countries and their banks were instrumental in creating the debt crisis. The rise in oil prices had increased the revenues of oil exporting countries. But they were unable to absorb them within their economies. They deposited large volumes of "Petro-dollars" in the commercial banks of the developed countries. Thus these banks had accumulated huge funds which could not be used by the developed countries, as the latter were faced with recession. But the LDCs needed funds for their economic development programmes which these banks "recycled" in the form of loans to LDCs.

4. Rising Interest Rates. The increase in interest rates also added to the debt crisis. During the first oil-price hike, the real interest rates were low and even negative in the developed countries due to inflation. This reduced the real burden of the debt of LDCs. But the second oil shock increased both money and real interest rates between 1979-82. The rise in oil prices led to inflation in the developed countries which adopted restrictive monetary policies to control inflation. This resulted in a sharp increase in money and real interest rates. Consequently, the costs of servicing the past debts and of new debts increased for LDCs. The costs of debt service was made worse by the growing proportion of debt at variable interest rates in the form of loans from commercial banks belonging to developed countries. For instance, the ratio of debt service to exports of all developing countries increased from 13.2% in 1980 to 25.9% in 1986.

5. Trade Policies. Trade related policies of both LDCs and developed countries also led to the growth of external debt of LDCs. The LDCs followed the inward-oriented import-substitution industrialisation till the 1970s. This policy brought initial gains but ultimately led to inefficiencies in the production of manufactured goods. Agricultural and primary production activities were neglected. The two oil-price hikes which led to recessions in the developed countries and the increase in non-tariff restrictions by the latter led to reduction in exports and export prices of LDCs. During 1981-86, they suffered an annual average loss of $ 8 billion due to reduction in their export earnings. With the fall in the prices of their primary commodities, the terms of trade of LDCs also deteriorated. The cumulative loss suffered due to this by them was $ 95 billion during this period.

6. Immediate Cause. After 1979, many LDCs had accumulated huge external debts which they found it difficult to repay in the form of interest and principal. This led to the international debt crisis of the 1980s. The crisis emerged in August 1982 when the Mexican Central Bank announced that it had run out of foreign exchange reserves and that it could not pay its foreign debt of $ 80 billion. Fearing that Argentina, Brazil and Chile might not follow Mexico, the lender-banks of developed countries started refusing new loans and demanded repayments of earlier loans from these and other Latin American countries. This trend spread to African and some East Asian LDCs. By the end of 1986 more than 40 countries were engulfed by the debt crisis.

UNCTAD/IMF: NEED, ADEQUACY AND DETERMINANTS OF INTERNATIONAL RESERVES

20.4 International Monetary Fund (IMF)

Background

The establishment of the International Monetary Fund, abbreviated IMF, is a watershed in the history of global economic cooperation. The creation of the International Monetary Fund was the result of a 1944 meeting held in Bretton Woods (United States). The conference gave rise to the IMF and IBRD organizations. The IMF was established in December 1945, and in March 1947 it proclaimed its preparedness to begin foreign exchange transactions. Presently, 187 countries are

members of the IMF. The IMF is a pool of central bank reserves and national currencies that its members have access to under specific conditions. It might be viewed as an expansion of the central bank reserves of member nations.

The principal purposes setting up of IMF are:

1. Creation of global money related co-activity: The above all else objective of the asset is to advance worldwide financial collaboration through an extremely durable foundation.

2. Promotion of adjusted development of International Trade: The second significant target of the asset is to work with the extension and adjusted development of global exchange and to contribute along these lines to the advancement and upkeep of elevated degrees of work of the part nations.

3. Stability in conversion standard: One of the principal goals of IMF is to advance trade steadiness, to keep up with methodical trade plans among individuals and to stay away from serious trade deterioration.

4. Multilateral Payments Arrangement: This goal is to aid the foundation of a multilateral arrangement of installment in regard of current record exchanges among individuals and in the end of unfamiliar trade limitations, which hamper the development of world exchange.

5. To right maladjustments yet to be determined of installments: The significant goal is to give certainty to individuals by making the asset's assets accessible to them under satisfactory protections. In this way, it gives them a valuable chance to address maladjustments in their equilibrium of installments without turning to measures disastrous of public and global success. The IMF doesn't meddle in the interior economy of the part nations to reestablish harmony in their equilibrium of installments.

6. To abbreviate the span and reduce the level of disequilibrium: The goal is to abbreviate the term and decrease the level of disequilibrium in the worldwide equilibrium of installments of individuals.

7. Abolition of trade limitations: The asset will attempt to eliminate a wide range of limitations and controls on unfamiliar trade forced by the part nations.

8. Help in global installments: The asset will loan or offer to its part countries monetary standards of different nations. This works with unfamiliar trade exchanges among the individuals.

9. Aid to part nations during crisis: The asset targets giving momentary money related help to part countries during crisis.

20.5 Membership of IMF

There are two types of members of the fund:

• Original Members: All those countries whose representatives took part in Bretton Woods Conference and who agreed to be the member of the Fund prior to 31st December, 1945, are called the original members of the Fund.

• Ordinary Members: All those who became its member subsequently are called ordinary members.

Any country may withdraw its membership by submitting a written withdrawal notification. Fund may terminate a country's membership if it violates its regulations. From forty in 1947 to 187 in 2010, the number of member states has increased from forty.

Organization and Management

In order to manage the fund, the following administrative boards have been set up:

- Board of Governors: It consists of one Governor and an Alternate Governor for each member country. It meets once a year. The board of governors frames the policies of the Fund.
- Board of Directors: It conducts day-to-day affairs of the Fund. It consists of 21 directors, 7 of whom are permanent and others being temporary directors. Permanent directors belong to those countries that have the largest quotas in the Fund. Currently, these countries are United States, Japan, Germany, France, China, Italy and Saudi Arabia. Fourteen other directors are elected by other member countries. India is one of the elected directors. The managing director may appoint three deputy managing directors instead of one, w.e.f. June, 1994.

20.6 Capital Resources of the Fund and Organizational Strategy of the Fund

Capital Resources of the fund

The capital resource of the fund are bought in by the different part nations via their separate shares. Every part's still up in the air before its enrolment as a part. The standard of every part is fixed concerning SDRs. Every nation needs to give 25% of its share sum with regards to save resources, as SDRs or some other usable cash and 75 percent concerning its own money. A country's relations with the not entirely set in stone by how much its standard.

Example:

(a) Voting powers of a part country relies on how much its standard. Every nation has 250 least votes. In addition, on every lakh of SDRs, one vote is expanded.

(b) The most extreme restriction of the monetary help from the Fund to the part country to address its equilibrium of installments relies upon how much its quantity.

(c) Share of a country in the portion of SDRs relies upon how much its share.

Changes in how much standard of Fund are made after like clockwork. The asset has made changes in the quantities of part nations at various times. In 2010, the portion raised by the Fund was around 238.4 billion SDRs.7.6.2. Operational Strategy of the Fund

Borrowing Strategy of the Fund

The Fund is a significant financial institution in addition to conducting regulatory and advisory roles. The majority of the Fund's financial resources come from quota subscriptions from member countries. In addition, it can borrow from the governments, central banks, and private institutions of industrialised nations, the Bank for International Settlements, and even OPEC nations such as Saudi Arabia.

General Arrangements to Borrow (GAB)

The Fund can borrow from its 20 industrialized members under GAB and NAB (New Arrangements to Borrow) The GAB and NAB are credit arrangements between the IMF and a group of members and institutions to provide supplementary resources of up to SDR 34 billion (about US$50 billion) to the IMF to forestall or cope with an impairment of the international monetary system or to deal with an exceptional situation that poses a threat to the stability of that system

Lending Strategy of the Fund

Members may utilise the reserve tranche, the four credit tranches, and the three permanent facilities for particular reasons, per tranche policy. The members have access to the facility for compensatory financing of export fluctuations (established in 1963 and liberalised in 1975 and 1979), the Buffer

stock financing facility (established in 1969), the Extended Fund 'facility (established in 1974), and the Structural Adjustment Facility (SAF) established in March of 1986. Fund lending is made to members momentarily out of balance in their current account balance of payments. If a member country's currency falls below its quota, the shortfall is known as a reserve tranche. It can automatically withdraw up to 25 percent of its reserve tranche upon notifying the Fund of its balance-of-payments needs. The Fund charges no interest on such withdrawals. The borrowing country is required to repay the loan within three to five years.

Credit Strategy of the Fund

Credit Tranches

In addition, a member country may withdraw up to 100 percent of its outstanding limit from credit tranches in instalments. The borrowing member must demonstrate to the Fund that a feasible financial stability programme is being implemented. It indicates that credit tranche withdrawals are subject to conditions. To address the severe balance of payment issues, the Fund has gradually boosted the borrowing limit for members. A member can now borrow up to 300 percent of their new quotas on the Fund's overall net usage of resources. Withdrawals made under the CCFF, BSAF, SAF, STF, and ESAF are exempt from this 300 percent cap.

Other Credit Facilities

The Fund has established several new loan facilities since 1960. These credit facilities exclude borrowings made through credit tranches, and these loans are available for an extended term. These are the credit facilities:

1. **Buffer Stock Financing Facility (BSFF):** It was established in 1969. It was developed so that member nations may finance the commodities buffer stock. A member may use up to 30% of its quota under this heading. The member is required to collaborate with the Fund in establishing domestic commodity pricing. Repurchases occur between three and a half and five years.

2. **Extended Fund Facility (EFF):** The building was constructed in 1974. The EFF credit is offered to cover imbalances in the balance of payments. The quantities supplied by EFF are greater than the member's credit limit under conventional credit facilities. This facility is available for a maximum of ten years. The maximum loan amount permitted under EFF is 300 percent of the member's quota. The punishment is based on performance standards and instalment payments.

3. **Supplementary Financing Facility (SFF):** In 1977, the Supplemental Finance Facility (SFF) was established to offer additional financing for extended or standby arrangements. The primary objective of the SFF was to provide member nations with funding to cover substantial balance of payments deficits relative to their economies and quotas. This facility was expanded to include developing member nations with modest incomes. In 1980, the Fund established a Subsidy Account to minimise the cost of SFF borrowing for low-income developing nations. Subsidy Account refers to the account through which the Fund pays out subsidies to borrower nations.

4. **Structural Adjustment Facility (SAF):** It was founded in March of 1986. The primary objective of SAF was to give concessions to implement macroeconomic and structural reform plans over the medium term. Additionally, the loans are granted to them to address their balance of payments issues. The loans are made accessible to the weaker nations on extremely favourable terms. The interest rate levied on these loans ranges from 0.5 to 1%, and the repayment duration varies from 5 12 to 10 years with a 5-year grace period. Annual payments are contingent on the acceptance of annual agreements, with members getting 15 percent of their quota under the first annual arrangement, 20 percent under the second annual arrangement, and 15 percent under the third annual arrangement. The SAF was

established with a budget of 2,7 billion SDR. The majority of the funds come from loan repayments to the Trust Fund.

5. **Enhanced Structural Adjustment Facility (ESAF):** The ESAF was established in December 1987 with a budget of 6 billion SDR. It was established to satisfy the medium-term funding requirements of low-income nations. The ESAF has the same aims, eligibility requirements, and fundamental programmes as the SAF. The only difference between the two is the level of aid provided. The members can receive up to one hundred percent of their Quota throughout the course of a three-year programme, with a provision for up to two hundred fifty percent in extraordinary situations. The ESAF disburses funds biannually instead of annually.

6. **Compensatory and Contingency Financing Facility (CCFF):** The CCFF was established in August of 1988. Its primary objective was to offer timely compensation for temporary shortages or increases in cereal import costs caused by external factors. This facility was offered to a member in order to continue the momentum of adjustment programmes financed by the Fund. In 1990, the Fund temporarily incorporated a significant element to assist members in recovering from the Gulf War Crisis. This was within 95 percent of the CCFF quota. Additionally, it was determined to increase the scope of CCFF. Now, for the calculation of export shortfalls, workers' remittances, and trip receipts, shortfalls in other services such as revenues from pipelines, canals, shipping, transportation, construction, and insurance, etc. are also factored into compensating finance. .

7. **Transformation Facility (STF):** In April, 1993, STF was established with $6 billion to help Russia and other Central Asian Republics to face balance of payments crisis.

8. **Emergency Structural Adjustment Loans (ESAL):** The ESAL facility was established by the Fund at the beginning of 1999 to assist Asian and Latin American countries in financial difficulty. The Fund's short-term loan rates were 3 to 5 percentage points higher than its typical lending rates. The ESAL facility was established by the Fund at the beginning of 1999 to assist Asian and Latin American countries in financial difficulty. The Fund's short-term loan rates were 3 to 5 percentage points higher than its typical lending rates.

9. **Contingency Credit Line (CCL):** CCL was established in April 1999 to shield fundamentally sound countries from the contagion of other countries' financial crises. Those countries were deemed qualified which could finance BOP comfortably over the medium term, had a robust financial sector, and strong debtor-creditor relations. No nation has borrowed through this facility.

20.7 Conditionality Clause Of Imf And World Bank

When the IMF provides financial support to member countries, it must be sure the members are pursuing policies that will improve or eliminate their external payments problems. The explicit commitment that members make to implement corrective measures in return for the IMF's support is known as conditionality. Fund conditionality requirements, linking the financial assistance to the adoption of economic adjustments policies by members, seek to ensure that the member's policies are adequate to achieve a viable balance of payments position over a reasonable period. This commitment also ensures that members are able to repay the IMF in a timely manner, which in turn allows the IMF's limited pool of financial resources to be made available to other members with balance of payments problems. IMF financing, and the important role it plays in helping a country secure other financing, enables the country to adjust in an orderly way without resorting to measures that would harm its own or other countries prosperity.

Conditions for IMF financial support may range from general commitments to cooperate with the IMF in setting policies, to the formulation of specific, quantified plans for financial policies. IMF

financing from its general resources in the upper credit tranches (that is, where larger amounts are provided in return for implementation of remedial measures) is disbursed in stages.

The IMF requires a letter of intent or a memorandum of economic and financial policies, in which a government outlines its policy intentions during the period of the adjustment program; the policy changes it will make before the arrangement can be approved; performance criteria, which are objective indicators for certain policies that must be satisfied on a quarterly, semiannual, or in some instances monthly basis in order for drawings to be made; and periodic reviews that allow the Executive Board to assess whether the member's policies are consistent with the programs objectives.

Conditionality is flexible. The Executive Board's guidelines on conditionality encourage members to adopt corrective measures at an early stage; stress that the IMF should take into consideration members domestic social and political objectives, as well as their economic priorities and circumstances; permit flexibility in determining the number and content of performance criteria; and emphasize that IMF arrangements are decisions of the IMF that set out, in consultation with members, the conditions for its financial assistance.

The IMF recognizes that no one reform model suits all members and that individual countries both governments and civil society must have ownership of their programs. Thus, each member country, in close collaboration with the IMF staff, designs its IMF-supported programme. The process involves a comprehensive review of the member's economy, including the causes and nature of the balance of payments problems and an analysis of the policies needed to achieve a sustainable balance between the demand for, and the availability of, resources.

IMF-supported programs emphasize certain key aggregate economic variables domestic credit, the public sector deficit, international reserves, and external debt and crucial elements of the pricing system including the exchange rate, interest rates, and, in some cases, wages and commodity prices that significantly affect the country's public finances and foreign trade and the economy's supply response.

Although macroeconomic policies designed to influence aggregate demand (the total amount of national planned expenditure in an economy) continue to play a key role in many IMF-supported adjustment programs, it is widely recognized that measures to strengthen an economy's supply side (production of goods and services) are frequently essential to restore and maintain external viability and sound growth. Among the IMF-supported policy adjustments that member countries make to enhance the growth potential and flexibility of their economies are measures to remove distortions in the external trade system and in domestic relative prices, improve the efficiency and soundness of the financial system, and foster greater efficiency in fiscal operations.

Structural reforms in these areas have been particularly important in programs under the Extended Fund Facility and the Poverty Reduction and Growth Facility (PRGF), and the latter focuses particularly on poverty reduction as well. Given the emphasis on structural reforms in IMF-supported programs, close collaboration with the World Bank has been important.

Asian Development Bank

Some regional development banks have been established to assist the development of the developing countries of the respective regions the African Development Bank, the Asian Development Bank, the Caribbean Development Bank and the Inter-American Development Bank. The Asian Development Bank (ADB) was set up in December 1966 under the auspices of the United Nations Economic Commission for Asia and Far East (ECAFE) to foster economic development of Asian countries, with its headquarters at Manila. It also has about two dozen other offices around the world) ADB is a multilateral development finance institution dedicated to reducing poverty in Asia and the Pacific. In 2002, 61 nations, mostly from the region were members of ADB. The funds of the ADB are contributed by developed countries such as Japan, USA, Canada, West Germany, Australia, etc.

Objectives

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 non-profit, multilateral development finance institution that engages in mostly public sector lending for development purposes in its developing member countries. The main objectives of the ADB are:

1. To promote investment in the ESCAP region of public and private capital for development.

2. To utilise the available resources for financing development, giving priority to those regional, sub-regional as well as national projects and programmes which contribute more effectively to the harmonious economic growth of the region as a whole.

The success factors are:

1. long-term relationships for policy dialogue,

2. policy regulatory system and rules for private sector investment in sanitation,

3. national campaigns for investment in sanitation,

4. combining water supply and sanitation institutions and cost-recovery mechanisms,

5. encouraging partnerships with other utilities in member countries, and

6. encouraging demonstration effects of pilot fecal sludge management at municipality level for a wider effect.

The failure factors are:

1. no targets for the poor in inclusive planning,

2. lack of a thorough capacity assessment of local implementing agencies,

3. not supporting small-scale independent sanitation providers for fecal sludge management,

4. not monitoring of environment and health impact indicators,

5. not incorporating gender analysis and actions, and

6. slow uptake and disbursement of initiatives under the Sanitation Financing Partnership Trust Fund (SFPTF).

20.8 India and the WTO

India is a founder-member of the WTO. India has contributed significantly to the evolution of the concept of the WTO. In turn, India is already reaping in a big way various benefits that can be directly or indirectly associated with the WTO.

1. India is experiencing an unprecedented boom in exports, as are the world exports. India is soon to reach the export target of $100 billion, up from only $33.22 billion in 1998-99. This can be attributed, in a large measure to the WTO-induced lowering of the trade barriers.

2. India has immensely benefited from the multilateral dispute settlement system that has been set up under the WTO. Action has been initiated against such powerful economies as the USA on disputes involving India.

3. Adoption of international standards in Intellectual Property Rights protection would enhance flow of foreign investment and technology.

4. Indian laboratories engaged in research in plant varieties and seeds for tropical regions would benefit.

5. Trade in textiles and agricultural products, in particular, would get a boost.

In short, the WTO has opened up new vistas in international economic relations for all the countries of the world. In the opened up world, the stakes of all the countries have multiplied, and so has the degree of rivalry and competitiveness. India, like any other country, would be on guard to save its interests and promote them in a world which is swamped with multifold opportunities.

20.9 India and the Bank

India is the founder-banker of the Bank. For India, the Bank means many things. The Bank has not been merely a lending institution to India but has also served as a worthy counsel whom India has approached for advice in difficulties.

India has been the single largest borrower of the Bank. The Bank has extended generous assistance to India in executing a number of development projects in different sectors like manufacturing, industry, transportation – railways, ports, roads and aircrafts – electrical power, agriculture, etc. The Bank has also been instrumental in the establishment of the India Development Forum, a consortium of donor nations to India. The massive financial assistance pledged by the consortium members has been the largest aid commitment and is a landmark in the history of development aid from developed countries to developing countries.

But in line with the general changes in the environment, India's growing preference for equity capital rather loans has resulted in a marked fall in the inflow of assistance from the Bank to India, as would be seen from

Table 1

Table 1: World Bank Assistance to India

Year	Grants	Loans	Total
1980-81	–	175.5	175.5
1990-91	–	1217.5	1217.5
1997-98	8.0	581.9	589.9
1998-99	3.0	575.1	578.1
1999-00	5.1	646.6	651.7
2000-01	5.4	706.8	712.2
2001-02	1.5	772.8	774.3
2002-03	10.4	657.3	667.7
2003-04	13.2	902.3	915.4

India's total outstanding debt from the Bank stands at about $5 billion presently.

Bank aid to India, however, has been subject to a number of criticisms:

• The Bank has granted loans for specific purposes and projects rather than for general development purposes.

• The Bank exercises excessive control over the expenditure on the proposed projects.

• The rate of interest charged by the Bank is very high.

• An increasingly large share of the Bank's assistance is linked to the "conditionality", i.e., to effect the changes in the economic policies as desired by the Bank.

Summary

A set of different international economic organisations has been set up to ensure orderly international economic cooperation and smooth economic relations between the nations of the world. While the IMF and the World Bank were set up when the world was caught in the turmoil of the World War, the WTO has been set up when the wave of globalization and liberalization was sweeping across the globe. Both the situations called for a need to set up mutually-agreed organisations, which would only prove a win-win situation for all the contracting parties. While there may be some short-term pains for a few, due to need for structural adjustment during the phase of transition, long term prospects for economic development only serve to attract more adherents to this doctrine. Even China, which has been in the forefront to maintain its relative isolation in the world of nations, finally chose to get a membership of the WTO, and subject itself to the various agreements, rules and regulations framed by it. Open trade in goods and services, if carried out in true spirit, can only promote welfare, globally and for each constituent individual nation.

Keywords

Conditionalities: Various obligations placed on a borrower-nation by the IMF.

Review Questions

1. Discuss the functions and role of IMF. Give a brief account of IMF's financing policies and facilities

2. IMF and World Bank serve the interests of industrialised nations rather than those of the developing countries. Comment

3. What is meant by an international monetary system? How can international monetary systems be classified?

4. (a) Explain how a nation could attempt to discourage large destabilizing international capital inflows under the Bretton Woods system by intervening in the forward market.

   (b) Can the same be done under the present international monetary system?

5. What have been the causes of external debt of developing countries ? Discuss the measures that have been adopted to solve this problem.

6. State the objectives and functions of the International Monetary Fund. How have these undergone a change since its incentive?

Self Assessment

1. Where is the headquarters of the 'United Nations Conference on Trade and Development' located?

   A. Geneva

   B. Washington

   C. Paris

   D. Brussels

2. The headquarter of International Monetary Fund is located at ……….

   A. Geneva

   B. London

   C. USA

   D. Washington D.C.

3. The International Monetary Fund (IMF) was established by an international treaty in

   A. 1942

   B. 1943

   C. 1944

   D. 1945

4. In December 1945, the IMF came into existence with the following number of countries signed its Articles of Agreement.

   A. 29

   B. 30

   C. 31

   D. 32

5. The purpose of IMF is to

A. To promote international monetary cooperation

B. To facilitate the expansion and balanced growth of international trade

C. To promote exchange stability

D. All of the above

6. The IMF focuses mainly on a country's ___ policies.

A. Macroeconomic

B. Microeconomic

C. Both (A) And (B)

D. None of the above

7. Member's quota delineates basic aspects of its financial and organizational relationship with the IMF, including:

A. Voting power

B. Access to financing

C. SDR allocations

D. All of the above

8. What is the main role of the World Bank?

A. To be a forum for trade and liberalization.

B. To assist countries in development.

C. To facilitate private investment around the world.

D. All of the options given are correct

.

9.   Which of the following statement is correct?

A. World bank has established 73 years ago

B. Headquarter of World Bank is in Washington D.C.

C. Adam smith is the founding father of the World Bank

D. Only a. and b.

10. Which of the following is not the function of World bank?

A. To provide the long-term loans to the members countries

B. To provide the loans to the private investor belonging to the member countries

C. To ensure the exchange rate stability

D. To provide the loan for the productive activities

11. Headquarter of Asian Development Bank (ADB) is in

A. Bangkok

B. Singapore

C. Beijing

D. Manila

12. Asian Development Bank (ADB) has the following objective(s)

A. Environmental Protection
B. Economic Growth
C. Human Development
D. All of the above

13. WTO stands for_____

A. World Tariff Organization
B. World Tax Organization
C. World Trade Organization
D. World Trademark Organization

14. _____ became the 164th member of World Trade Organization (WTO).

A. Kenya
B. Liberia
C. Pakistan
D. Afghanistan

15. The World Trade Organization (WTO) was established to implement the final act of _____round agreement of GATT.

A. Torquay
B. Uruguay
C. Geneva
D. Tokyo

Answers for Self Assessment

l.	A	2.	D	3.	D	4.	A	5.	B
6.	A	7.	D	8.	B	9.	D	10.	C
11.	D	12.	D	13.	C	14.	D	15.	B

Further Readings

1. International Business Environments and Operations, John D Daniels, University of Miami, Lee H Radebaugh, Brigham Young university and Daniel P Sullivan , University of Selaware, Pearson, 2007
2. International Business – Competing in the Global Marketplace, Charles W L Hill, University of Washington and Arun Kumar Jain , Heilbronn Business School (Germany), on leave from IIM Lucknow, The Tata McGraw Hill publishing Company Ltd.

Web Links

Data and analyses of the operation of the present international monetary and trading systems are regularly conducted by the International Monetary Fund (IMF), the Organization for Economic Cooperation and Development (OECD), the Bank for International Settlements (BIS), the World Trade Organization (WTO), and the World Bank (WB). Many of these are posted on their web sites at:

http://www.imf.org

http://www.oecd.org

http://www.bis.org

http://www.wto.org

http://www.worldbank.org