



ਜਗਤ ਗੁਰੂ ਨਾਨਕ ਦੇਵ
ਪੰਜਾਬ ਸਟੇਟ ਓਪਨ ਯੂਨੀਵਰਸਿਟੀ
ਪਟਿਆਲਾ

The Motto of Our University
(SEWA)

SKILL ENHANCEMENT

EMPLOYABILITY

WISDOM

ACCESSIBILITY

ਜਗਤ ਗੁਰੂ ਨਾਨਕ ਦੇਵ
ਪੰਜਾਬ ਸਟੇਟ ਓਪਨ ਯੂਨੀਵਰਸਿਟੀ, ਪਟਿਆਲਾ
JAGAT GURU NANAK DEV
PUNJAB STATE OPEN UNIVERSITY, PATIALA

JAGAT GURU NANAK DEV

PUNJAB STATE OPEN UNIVERSITY, PATIALA

(Established by Act No. 19 of 2019 of the Legislature of State of Punjab)

MASTER OF ARTS (ECONOMICS)

SEMESTER-I

MAEC24103T- INTERNATIONAL ECONOMICS

(Punjabi Medium)

Head Quarter: C/28, The Lower Mall, Patiala-147001

Website: www.psou.ac.in

SELF-INSTRUCTIONAL STUDY MATERIAL FOR JGND PSOU

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JAGAT GURU NANAK DEV PUNJAB STATE OPEN UNIVERSITY, PATIALA

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PREFACE

Jagat Guru Nanak Dev Punjab State Open University, Patiala was established in December 2019 by Act 19 of the Legislature of State of Punjab. It is the first and only Open University of the State, entrusted with the responsibility of making higher education accessible to all, especially to those sections of society who do not have the means, time or opportunity to pursue regular education.

In keeping with the nature of an Open University, this University provides a flexible education system to suit every need. The time given to complete a programme is double the duration of a regular mode programme. Well-designed study material has been prepared in consultation with experts in their respective fields.

The University offers programmes which have been designed to provide relevant, skill-based and employability-enhancing education. The study material provided in this booklet is self-instructional, with self-assessment exercises, and recommendations for further readings. The syllabus has been divided in sections, and provided as units for simplification.

The University has a network of 110 Learner Support Centres/Study Centres, to enable students to make use of reading facilities, and for curriculum-based counselling and practicals. We, at the University, welcome you to be a part of this institution of knowledge.

Dean Academic Affairs



MASTER OF ARTS (ECONOMICS)

SEMESTER-I

MAEC24103T- INTERNATIONAL ECONOMICS

MAX. MARKS:100

EXTERNAL:70

INTERNAL:30

PASS:40%

CREDITS:6

OBJECTIVE:

This course acquaints the students with the basic principles of Microeconomics and economic activities. It will help the students to understand the subject by applying it to their day to day experiences.

INSTRUCTIONS FOR THE PAPER SETTER/EXAMINER:

1. The syllabus prescribed should be strictly adhered to.
2. The question paper will consist of three sections: A, B, and C. Sections A and B will have four questions each from the respective sections of the syllabus and will carry 10 marks each. The candidates will attempt two questions from each section.
3. Section C will have fifteen short answer questions covering the entire syllabus. Each question will carry 3 marks. Candidates will attempt any 10 questions from this section.
4. The examiner shall give a clear instruction to the candidates to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.
5. The duration of each paper will be three hours.

INSTRUCTIONS FOR THE CANDIDATES:

Candidates are required to attempt any two questions each from the sections A, and B of the question paper, and any ten short answer questions from Section C. They have to attempt questions only at one place and only once. Second or subsequent attempts, unless the earlier ones have been crossed out, shall not be evaluated.

SECTION - A

Unit 1: Theories of International Trade: Nature, scope and importance of International Economics

Unit 2: Theories of Absolute Advantage, Comparative Advantage and Opportunity Costs. Heckscher- Ohlin Theory. Factor Price Equalisation. Gains from trade, their measurement and distribution.

Unit 3: Commercial Policy: The theory of tariffs, Optimum and effective rate of tariff, inter-relationship between trade, aid and economic development.

Unit 4: The theory of economic integration among nations; forms of economic integration. The theory of Customs Union.

SECTION – B

Unit 5: Balance of Payments, Exchange Rate and Trade Structure: The process of adjustment in the balance of payments. The concept of foreign trade multiplier. Fixed Vs. flexible exchange rates and their relative merits and demerits.

Unit 6: Structure of Trade: trade between developing and developed countries. Unequal Exchange and its impact on Balance of Payments. Current problems of trade and finance of developing countries.

Unit 7: International Monetary System: IMF and international monetary system Present international monetary system, problems of international liquidity. Proposals for international monetary reforms.

Unit 8: New International Economic Order: Role of common currency in regional blocs and common markets. Financial Globalization and Financial crises: Causes and case studies.

Suggested Readings:

- Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: 15 Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.

- Bo Sodersten: International Economics, IIInd Edition, Macmillan Press, London, Reprint 1990.
- C.P. Kindleberger: International Economics, Richard Irwin, Homewood, IIinois, Indian, Edition 1977

MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 1: INTERNATIONAL ECONOMICS: NATURE, SCOPE AND IMPORTANCE

STRUCTURE

1.0 Learning Objectives

1.1 Introduction

1.2 Meaning of International Economics

1.3 Internal and International Trade

1.4 Nature of International Trade

1.5 Subject matter of international Economics

1.6 Scope of International Economics

1.7 Importance of International Economics

1.8 Summary

1.9 Questions for Practice

1.10 Suggested Readings

1.0 Learning Objectives

After reading the lesson, students will be able to:

- Understand the meaning of International Economics
- Know subject matter of International Economics
- Describe nature & scope of International Economics
- Discuss the importance of international economics.

1.1 Introduction

In the words of British economist Alfred Marshall, *“Economics as a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the material requisites of well-being.”* Hence the science of economics is concerned with the optimum allocation of resources among the competing ends to satisfy unlimited wants. International Economics is that part of the study of economics which deals with the issue of adjustment between scarce resources and ends in a more specific way.

In the words of Miltiades Chacholiades, *“International Economics studies how a number of distinct economies interact with one another in the process of allocating scarce resources to satisfy human wants”*. International Economics is a special branch of economic science that deals with international trade and finance. In a closed, economic system, there may be severe constraints upon the optimization of production and welfare. The international exchange of goods and services can facilitate the optimum allocation of productive resources and not only in a case of a single country but also in the entire world. International economics is that branch of economics in general which deals with the international exchange of goods and services. The major question in international trade theory is to explain why nations trade with each other. In today’s world of unlimited wants, no nation is self-reliant in terms of domestic consumption. The factors of production are unequally distributed in the world. Countries differ in terms of natural resources, mineral resources, labour, capital, and entrepreneurial endowments and these differences decide the capacities of countries to produce goods and services. Due to different production capacities, countries can produce different goods efficiently and a single country can’t produce all goods efficiently. Just as individuals specialize in certain products as per their skills countries also specialize in the production of particular goods and services in which they have production efficiency over other countries. As individuals gain through trade similarly international trade generates gains from the exchange of goods and services among various nations. Hence the sole basis of international trade is gain from trade, if there is no gain there will be no trade.

1.2. Meaning of International Economic

International economics refers to the study of international forces that influence the domestic conditions of an economy and shape the economic relationship between countries. In other words, it studies the economic interdependence between countries and its effects on the economy.

According to Wasserman and Haltman, “*International Trade consists of transactions between residents of different countries.*”

Therefore, international economics is divided into two parts, namely, theoretical and descriptive. These two parts are discussed below:

1. Theoretical International Economics: It deals with the theoretical explanation of international economic transactions as they take place in different institutional environment, theoretical context of international trade is discussed in it. Theoretical international economics is further divided into two categories, which are as follows:

- **Pure Theory of International Economics:** Pure theory of international economics deals with trade patterns, the impact of trade on production, rate of consumption, and income distribution. It also involves the study of the effects of trade on the prices of goods and services and the rate of economic growth. It involves the microeconomic part of international economics.
- **Monetary Theory of International Economics:** Monetary theory of international economics is concerned with issues related to the balance of payments and the international monetary system. It studies causes of disequilibrium between payments and international monetary system and international liquidity. It involves the macroeconomic part of international economics.

2. Descriptive International Economics: It deals with the institutional environment in which international transactions take place between countries. Descriptive international economics also studies issues related to the international flow of goods and services and financial and other resources. It covers the study of various international economic institutions, such as IMF, WTO, World Bank, and UNCTAD.

International Economics deals basically with those economic principles which govern the exchange of goods and services between sovereign nations (more accurately, between their residents) and with special policy problems which arise because of this. It must be understood, however, that these general principles are the same as those which apply to trade between groups and individuals within a given country. This is so because the gains from trade, whether national or international, arise from specialization through division of labour which increases the productivity of factors. Specialization is, however, impossible without trade. Of course, a mutually beneficial exchange can arise even without production, when tastes differ between trading partners. This gain from pure exchange can be substantially increased when trade

makes it possible to reallocate productive resources based on comparative advantage. In brief we can say that International Economics is a specialized and dynamic branch of economic science which deals with nations and principles which govern international trade and try to inculcate understanding of present global economic problems and their potential solutions.

1.3 Internal and International Trade

The principle applies to international trade in goods and services are the same as applicable to internal trade because the same tools of analysis apply to all economic activity. However, controversy exists among economists if there is any difference between interregional and international trade. Hence it is important to make a distinction between internal and international trade because national boundaries essentially exercise some influence on the economic activities of countries. The exchange of goods and services among residents of the same country is called internal trade or inter-regional trade. International trade is trade between different countries or nations. Following factors may lead to this distinction:

- 1. Factor mobility:** It is considered that factors of production are perfectly mobile within a country. But in the international market, there are restrictions on the mobility of labour and capital from one nation to another. This distinction is also identified by classical economists, according to them; labour and capital were seen as mobile within a country but not between countries.
- 2. Different Currencies:** Within a nation, the monetary system is the same for all regions as there is a single currency unit used throughout the country. But this is not the case between countries. There is the use of different currencies like dollars, yen, pounds, marks, francs, rupee, and a thousand more currencies used in international trade. Further, a system of conversion of one currency into another currency is required which is called the exchange rate mechanism. This is very important because the rate of exchange affects not only the movement of goods between countries but also the mobility of capital.
- 3. Economic Environment:** Countries differ in the economic environment as economic, social-cultural and legal environment differs between nations. However, these systems and environments are similar within a nation. Government policies, production techniques, factor proportions and prices, infrastructure facilities, and market structures are nearly the same within a country. But between nations, they could vary differently.
- 4. Product Mobility:** The movement of goods and services within a nation is free and the only barrier is distance and cost of transportation. Whereas in the case of international

trade there are import and export duties and quotas, exchange controls, non-tariff barriers which put restrictions on the free movement of goods between nations. Increasing protectionism makes international trade more difficult to happen, however internal trade is relatively free to develop within a particular nation.

These differences between internal and international trade give an important and independent status to International Economics as a branch of Economic science. International trade plays an important role in the progress of a nation. Today no nation exists in isolation and international movement of products increases the economic interdependence among nations. It is clear from the previous paragraph that the economic activities between nations differ from activities within nations. For example, the factors of production are less mobile between countries due to various restrictions imposed by governments. Each branch of economics has specific groups of transactors so has international economics - residents of different nations. The impact of various government restrictions on production, trade, consumption, and distribution of income is covered in the study of international economics. Thus, it is important to study international economics as a special field of economics. The need for special treatment of international economics is that international trade takes place between sovereign nations, and therefore, it is possible and indeed likely, that in pursuance of conflicting national objectives they will adopt policies which will sometimes tend to diminish trade flows. In this context, the specific task of international trade theory would be to highlight the gains from free trade and to focus on the need for, and the possibility of, harmonies and conflicts in international economic relations. But there are certainly practical reasons which led to the evolution of international economics as a distinct branch of economics.

These reasons are as below:

1. International economics has over the years developed certain specific tools of analysis and has applied them to different problems encountered in international trade payments, foreign exchange markets, and economic policies.
2. There is the existence of independent sovereign states exercising their authority over a specific geographical area. During the recent decades the growth of regional economic groupings such as a European Union (EU), North American Free Trade Area (NAFTA), Organisation of Petroleum Exporting Countries (OPEC), Association of Southeast Asian Nations (ASEAN), South Asian Association for Regional Co-operation (SAARC), and the expanding activities of the powerful multinational corporations have caused some

erosion in the independent policymaking authority. But the concept of a nation-state is still quite powerful and the different countries adopted trade, payments, and other policies that are guided by enlightened self-interest even though these may be detrimental for the other countries. International economics has thus to deal with the several complex diversities in economic policies.

3. Within the same country, there can be some justification in assuming the constancy of demand and cost conditions. But there is no justification in assuming away the difference in demand patterns and cost conditions between the different countries. The theoretical methods employed by international economics are more suited to deal with these diversities.
4. The different countries of the world do not have that capitalistic laissez-faire economic system which is fundamental to economics in general. In the real world, various political-economic systems are ranging from capitalism to mix economies, communism, and authoritarianism exist. While in the capitalist system the economic activities are regulated by the free play of market forces, the other systems rely upon the government control regulations of different levels. The countries with alternative economic and political systems in nonetheless, are engaged in the exchange of goods and services. Only a specialized discipline like international economics can properly analyze their trade and payment interests.

Check Your Progress-I

Q1. What is International Trade?

Ans: -----

Q2. How one can differentiate between internal and international trade?

Ans:-----

1.4 Nature of International Economics

The nature of international economics can be easily understood by the following points:

- **It is An Art and as well as Science:** Art is the practical application of knowledge for achieving a definite aim. It is concerned with ‘doing’. And science is the systematic body of knowledge concerning the relationship between the causes and effects of a particular

phenomenon. International economics deals with international trade theory and trade policy. International trade theory and policy examine the reasons and effects of trade. So, international economics is both art and science as it works upon theoretical and empirical aspects.

- **It Critically Examines the Theories Related to International Economics:** International economics deals with many trade theories. Every theory has a different aspect and is applicable in some countries according to their economic conditions. So, international economics critically examines and evaluates the theories which are applicable to different countries in different conditions.
- **It is the Systematic Description of all the Aspects Related to International Economics:** International economics is a systematic description of all the aspects related to international economic issues like trade, poverty, fluctuations in the exchange rate, etc. firstly, it describes the problem and then provides the solution for it. It scientifically investigates such problems and also empirically verifies them.
- **Descriptive in Nature:** International economics describes issues related to the international flow of goods and services, financial and other resources. It also covers the study of various international institutions, such as IMF, WTO, and UNCTAD.
- **It is Dynamic:** International economics is dynamic, not static. It means changes its principles and rules when the economy needs it. Some changes are automatic and some are deliberate. So, we have to adopt the changes and it is also necessary for the development of international economics.

1.5 Subject matter of International Economics

The familiar breakdown of the entire corpus of economic theory into micro and macro domains has its parallel in international economics. International economics consists of two main branches:

1. **International Trade:** International trade deals with the long-run static equilibrium theory rely heavily on concepts of demand, supply, indifference curves, opportunity costs from microeconomics to explain why nations trade, how do they gain, and why do they resort to protectionism. It explains that if two nations trade with each other, it is for mutual benefit. International trade theory explains circumstances under which these gains are maximized. It explains how climate, availability of resources, and other such factors

decide items that are traded among nations. Countries, especially developing countries, are always worried about the possible ill effects of international competition on domestic growth and try to restrict free competition through economic barriers. International trade theory studies the pros and cons of such protectionist mechanisms and explores means of minimizing their effects to enhance gains from international trade. It analyses all aspects of the policy to examine how it can assist domestic growth and encourage free trade.

- 2. International Finance:** It is a macroeconomic theory that studies the monetary aspects of international economic relations. It deals with an international monetary system that permits the smooth working of the international economy operating on different currencies. One major issue it has to handle is that of the balance of payments. In their international operations, each nation has either surplus or deficit in foreign exchange payments. One method to manage this balance of payments is through the determination of the optimum exchange rate for its currency. One country's economic policy immediately affects the economy of other countries it is trading with. This calls for coordination of these sovereign economies to establish healthy harmony and the theory of international economics explores ways and means available for this purpose.

1.6 Scope of International Economics

International economics is a broader concept and includes many concepts like international trade, international finance, the balance of payment and globalization, etc. It has emerged as one of the most essential concepts for countries. Over the years, the field of international economics has developed drastically with various theoretical, empirical, and descriptive contributions.

- 1. Theory of International Trade:** It concentrates on the theoretical aspects of trade like reasons of trade, gains of trade, etc. Different schools of theories are absolute advantage theory, comparative advantage theory, and modern Heckscher-Ohlin theories, etc. The theory emphasizes the basis of trade or why international trade takes place. The entire structure of the theory of trade rests upon the classical principle and modern version. The modern theorists investigated more systematically and scientifically the issues related to terms of trade, gains from trade, and implications of international trade for growth and welfare.
- 2. Theory of Commercial Policy:** It deals with the international rules and regulations regarding the flow of transactions. It includes various trade restrictions like tariffs, quotas,

changes in exchange rates, etc. Many regulatory mechanisms and various international institutions for monitoring it have also come under it. This area of international economics analyses the reasons for and effects of tariff and non-tariff restrictions upon trade. A highly significant development in the post-war world economy has been the organization of regional economic groupings. The theory of customs union has attracted much attention from academicians and statesmen during the recent decades.

- 3. Theory of Foreign Exchange:** Since the international transactions take place through different currencies the rate of exchange among various currencies has to be determined. International economics studies these theories of determination of exchange rate, systems of exchange rates, conditions in the foreign exchange markets, and issues connected with the exchange control.
- 4. Balance of Payments:** With the progress of trade, nations have to make and receive payments. All these economic transactions of a nation with the rest of the world are systematically recorded in this account which is called balance of payments. The fluctuations in BOP and the associated policy regulations are also included. Balance of payments is a detailed account related to receipts from and payments to the rest of the world by a particular country on account of the transactions of goods or services and capital. International economics deals with the complete framework of a balance of payments accounts and the alternative mechanisms for correcting the balance of payments equilibrium (deficits and surpluses) under the different international monetary systems and examines the effects of payments disequilibrium upon economic performance and welfare of the people of a given country.
- 5. Balance of Payment Adjustments or Open-Economy Macroeconomics:** With the progress of transactions, sometimes either the credit or the debit may outweigh the other side. It will lead to imbalances in the BOP. This situation is normally coined BOP disequilibrium which demands correction either automatically or externally imposed by the governments. The external repercussions are also brought into the study. In open economy macroeconomics, the subject deals with principles that will help a nation to achieve internal balance (stability) and external balance(BOP equilibrium) simultaneously.
- 6. International Economic Institutions:** After the second world war, an institutional framework has been created at the international level to deal with problems like the stabilization of exchange rate, adjustment of international payments disequilibrium, and

meeting of shortage of international liquidity for financing of payments deficits and development. The prominent international institutions include the International Bank for reconstruction and development (IBRD) which is now-a-days called world bank, International Monetary Fund (IMF), International Development Association (IDA), International finance corporation (IFC), United Nations Commission on Trade and Development (UNCTAD), and World Trade Organization (WTO). International economics examines the working and policies of these international institutions.

- 7. Globalization:** It can be defined as an integration of economics all over the world. Globalization is the spread of products, technology, information, and jobs across national borders and cultures. In economic terms, it describes an interdependence of nations around the globe fostered through free trade. In nutshell international economics accommodate every topic associated with economic globalization.
- 8. International Political Economy:** It studies issues and impacts of international conflicts, international negotiations, and international sanctions. It is a sub-category of international relations.

Check Your Progress-II

Q1 International Economics is an art or science?

Ans: -----

Q2. Why International Economics is dynamic in nature?

Ans:-----

1.7 Importance of International Economics

International Economics is growing in importance as a field of study because of the rapid integration of international economic markets. Increasingly, businesses, consumers, and governments realize that their lives are affected not only by what goes on in their town, state, or country but also by what is happening around the world. Perhaps the most important reason to study international economics is that the world's news is more and more driven by interdependence between nations. The importance of international economics can easily be understood with the help of the following points:

- 1. To understand Importance of International Trade:** International trade and investment have come to occupy a central place in overall studies of economic growth and development of nations. Traditionally international trade has always been given an important place in the economic progress of nations. Foreign trade is also considered an engine of economic growth. International Economics will help to understand this importance through various theories of international trade.
- 2. To Manage Exchange Rate Fluctuations:** In International economics, we are dealing in multiple currencies, whose values fluctuate continuously; hence, the need to understand exchange rates (the price of one currency in terms of another), and what cause them to change. The growing volatility of exchange rates affects investment, growth, employment, and other indicators of a country's well-being.
- 3. To Adopt Appropriate Commercial Policy:** There normally are no commercial policies in existence within a nation. However, countries have commercial policies (tariffs, quotas, voluntary export restraints, subsidies, exchange controls, and the like) that directly or indirectly impact international trade, investment, and money flows/values, and therefore directly impact domestic economic well-being. We want to understand what those policies are and what their impact is.
- 4. Impact of Factor Mobility** Factors of production are mobile within a country but are not as mobile internationally, though capital and to a lesser but growing extent labour is becoming increasingly more mobile from country to country. The growing international mobility of factors of production is affecting the comparative advantage of nations. For example, capital flows to Asia changed the comparative advantage of that region of the world. We will want to understand what impact the increasing mobility of the factors of production has on comparative advantage.
- 5. Importance of Economic Integration** We need to be aware of the continuing trade bloc revolution such as NAFTA (North American Free Trade Agreement), SAFTA, European Union. The theory of custom union has immense importance in the discipline of international economics.
- 6. The upsurge of MNCs and International Organizations:** After the second world II periods there is an upsurge in economic globalization in terms of rising trade and investment. MNCs show a great source of this progress This new form of MNCs-led trade generated considerable challenges for the developing countries. Similarly, the birth of

IMF and World Bank, GATT, WTO, and regional grouping like the European Union created further importance of International Economics as a discipline to understand the impact of these new economic orders on the world economy.

7. To Solve International Economic Problems: Due to increasing integration of world economy the economic problems also become global in nature. Problems arise in any country will take global form too soon as we have seen in the case of financial crisis started in US economy in the year 2008. Through international economics students will be able to understand repercussion effect of economic problem of a country on world economy.

Check Your Progress-III

Q1 What is the scope of International Economics?

Ans: -----

Q2. Why International Economics is Important?

Ans:-----

1.8 Summary

To sum up, International Economics is the study of economic interactions between countries. Broadly speaking, the field is split between the study of International Trade, which extends microeconomics to open economies, and International Finance, which employs macroeconomic analysis. International Trade describes and predicts patterns of production, trade, and investment across countries. International trade is different from inter-regional trade that's why a different independent discipline of international economics is needed. It may be stated that trade can be an engine of growth, provided there is a mutuality of interests and spirit of accommodation and co-operation among the trading countries and that trade and aid policies are not employed as the vicious instruments of exploitation and deprivation of the poor countries of the third world. This discipline accommodates students to understand the importance of international trade and finance in the contemporary scenario and they will be able to understand and solve various economic problems of the present-day world. All this makes it clear that study of international economics is important for students of modern economics both in developed and developing countries of the world.

1.9 Questions for Practice

A. Short Answer Type Questions

- Q1. What is the meaning of International Economics?
- Q2. What is the nature of International Economics?
- Q3. What do you understand by International Economics?
- Q4. Explain the importance of International Economics?
- Q5. Mention two reasons to justify a separate study of International Economics?

B. Long Answer Type Questions

- Q1. Differentiate between inter-regional and international trade. Write the advantages and disadvantages of International Trade.
- Q2. What is the meaning of international economics? Explain its nature in detail.
- Q3. Discuss the scope and importance of International Economics?
- Q4. Why does the study of International Economics very important to understand the issues in international economic relations?

1.10 Suggested Readings

- Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9thedition, 2012.
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10thedition, 2011.
- Rana & Verma, International Economics, Vishal Publishing Co.
- Appleyard D., Field A. and S. Cobb (AFC), International Economics, 6th edition, 2008
- Sodersten B., Reed G. (SR) International Economics, 3rdedition. Macmillan, 1994.
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MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 2: THEORIES OF ABSOLUTE ADVANTAGE, COMPARATIVE ADVANTAGE

2.0 Learning Objectives

2.1 Introduction

2.2 Theory of Absolute Advantage

2.2.1 Assumptions of the Theory

2.2.2 Explanation of the Theory

2.2.3 Criticisms

2.3 Theory of Comparative Advantage

2.3.1 Assumptions of the Theory

2.3.2 Explanation of the Theory

2.3.3 Criticisms

2.4 Opportunity Cost

2.4.1 Constant Opportunity Cost and International Trade

2.4.2 Increasing Opportunity Cost and International Trade

2.4.3 Decreasing Opportunity Cost and International Trade

2.5 Heckscher-Ohlin Theory of International Theory

2.5.1 Assumptions of the Theory

2.5.2 Explanation of the Theory

2.5.3 Criticisms

2.6 Factor Price Equalisation Theory

2.6.1 Samuelson's Analysis of Factor-Price Equalisation Theorem

2.6.2 Hicksian Analysis of Factor Price Equalisation Theorem

2.6.3 Lerner's Analysis of Factor Price Equalisation Theorem

2.6.4 Soderston's Analysis of Factor Price Equalisation Theorem

2.6.5 Kindleberger's Analysis of Factor Price Equalisation Theorem

2.6.6 Obstacles to Equalisation of Factor Prices

2.7 Gains from Trade: Meaning

2.7.1 Factors Affecting Gains from Trade

2.7.2 Static and Dynamic Terms of Trade

2.8 Summary

2.9 Questions for Practice

2.10 Suggested Readings

2.0 Learning Objectives

After reading this unit, learner will be able to:

- Understand the concept of Absolute Advantage and Comparative Advantage
- Describe opportunity cost
- Know about Heckscher-Ohlin theory
- Analyze factor price Equalisation theory
- Examine the Gains from trade and its measurement

2.1 Introduction

The trade theory that first indicated importance of specialization in production and division of labour is based on the idea of theory of absolute advantage, which is developed first by Adam Smith in his famous book, *The Wealth of Nations* published in 1776. Later on, David Ricardo in his book titled *On the Principles of Political Economy* published in 1819 extended it to incorporate theory of comparative advantage and showed that it is the basis, why nations need to trade and why trade is mutually beneficial to countries. If a country or individual is absolutely more efficient at production of a good than another country or individual, then we say that she has absolute advantage in the production of that good. If a country or individual is relatively more efficient in the production of a good than another country or individual then we

say that she has comparative advantage in production of that good. Comparative advantage measures efficiency in terms of relative magnitudes. Comparative advantage and opportunity cost leads to gains from international trade.

2.2 Theory of Absolute Advantage

Though the Mercantilists, an early school of Economists, were the first to advocate a series of measures to regulate international trade, it was Adam Smith who provided the basic principles which influenced thinking on the subject for a long time. His method was to apply the benefits of specialisation to the international economy on the assumption that international trade was no different from internal trade of a country, if trade barriers were done away with. He wrote in “Wealth of Nations”, “It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. All of them find it in their interest to employ their whole industry in a way in which they have some advantage over their neighbours and to purchase with a part of it whatever else they have occasion for. What is prudence in the conduct of every private family can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy of them with some part of the produce of our country employed in a way we have some advantage.”

Adam Smith thus argued that relative advantage resulting from absolute differences in costs are the basis for international trade.

2.2.1 Assumptions of the Theory

1. Factors of production cannot move between countries.
2. No barriers to trade in goods.
3. Exports must be equal to imports. This assumption means that we exclude trade imbalances, trade deficits or surpluses
4. Labour is the only relevant factor of production.
5. Production exhibits constant returns to scale.

2.2.2 Explanation of the Theory

According to Adam Smith trade between two nations is based on absolute advantage. The absolute advantage means the greater efficiency the one nation may have over another in the production of a commodity. This was the basis for trade between two nations for Adam Smith. Smith argued that with free trade one nation could specialize in the production of that commodity in which it is more efficient (or has an absolute advantage) than the other nation.

This nation should export this (absolute advantage) commodity and import that commodity in which it is less efficient (absolute disadvantage) than the other nation. By this process, a nation behaves like an individual, he produces only that commodity that he can produce most efficiently and then exchanges part of his output for the other commodity in which he is less efficient (absolute disadvantage). This way total output and the welfare of all individuals are maximized.

- In India 1 hour of labour time produces 8 kgs of wheat.
- In Sri Lanka 1 hour of labour time produces 1 bushels of wheat.
- In India 1 hour of labour time produces 3 yards of cloth.
- In Sri Lanka 1 hour of labour time produces 7 yards of cloth.

Table 1: Absolute Advantage

	India	Sri Lanka
Wheat	8	1
Cloth	3	7

From above explanation it is clear that India is more efficient than, or has an absolute advantage over Sri Lanka in production of wheat, while Sri Lanka is more efficient than, or has an absolute advantage over India in production of cloth.

With trade, India would specialize in production of wheat and export part of it with Sri Lanka cloth. With trade, Sri Lanka would specialize in production of cloth and export part of it with India wheat. What happens if India exchanges 8 bushels of wheat (8W) for eight yards of Sri Lanka cloth (8C):

1. India gains 5C (since India can only exchange 8W for 3C domestically). With trade India gain is equal to 5C (i.e., 8C - 3C) or India could save 1.7 man-hour or more than half an hour of labour time.
2. Sri Lanka receives 8W from India, which would require 8 man-hours of labour time to produce in Sri Lanka (since in Sri Lanka 1 man-hours of labour time required to produce 1W). These same 8 man-hours can produce 56 cloths (56C) in Sri Lanka. In Sri Lanka 1 man-hours of labour time produce 7C. Therefore, 8 hours of labour time can produce 56C (8hours times 7C).

3. Out of 56C Sri Lanka exchanges 8C with the India. Sri Lanka gains 48C (56C-8C) or saves 6.85 man-hour of labour time.

It is clear from the above explanation that Sri Lanka gains much more than India but this does not matter here. This theory explains that international trade between two nations is possible without making other nation worse off, if both nations are more efficient (absolute advantage) in production of one of the two commodities.

2.2.3 Criticism of the Theory

This theory only tells us that both nations would gain from production and trade. This theory does not explain how the gains from trade are divided among the trading nations. This theory also fails to determine the rate at which commodities will be exchange between two nations.

2.3 Theory of Comparative Advantage: David Ricardo

If a country or individual is relatively more efficient in the production of a Good than another country or individual then we say that she has comparative advantage in production of that Good. Comparative advantage measures efficiency in terms of relative magnitudes. Since countries have limited resources and level of technology, they tend to produce Goods or services in which they have a comparative advantage.

According to Adam Smith, mutually beneficial trade between two nations is based on absolute advantage. Law of comparative advantage, developed by David Ricardo, postulates that even if one nation is less efficient than (absolute disadvantage) the other nation in production of both commodities, there is still a basis for mutually beneficial trade, unless the absolute disadvantage is in the same proportion. The less efficient nation (absolute disadvantageous nation) should specialize in the production and export the commodity in which its absolute disadvantaged is less. This is the commodity in which less efficient nation has comparative advantage. On the other hand, the less efficient nation should import the commodity in which its absolute disadvantage is greater (comparative disadvantage). This is the commodity of comparative disadvantage of less efficient nation.

One must note that if one nation has comparative advantage in one commodity, then the other nation must necessarily have comparative advantage in production of the other commodity.

2.3.1 Assumptions of Law of Comparative Advantage

Ricardo based his law of comparative advantage on following assumptions:

1. There will be two nations and two commodities

2. Free international trade
3. Perfect mobility of labour within each nation but immobility between the two nations
4. Constant cost of production
5. No transport cost
6. No technical change
7. Labour is homogeneous
8. Cost or price of a commodity inferred exclusively from its labour content

2.3.2 Explanation of the Theory

Ricardo based his law of comparative advantage under the labour theory of value. According to the labour theory of value, the value or price of a commodity depends exclusively on the amount of labour going into the production of the commodity. Besides, labour is used in the same fixed proportion in the production of all commodities. Law of comparative advantage is criticized basically, for its labour theory of value. It is assumed that labour is homogeneous but labour is not homogeneous, it may vary greatly in training, qualification, productivity, and wages. It was Haberler, who came to “rescue” by explaining the law of comparative advantage in terms of opportunity cost of theory, as reflected in production possibility frontiers or transformation curves. In this form, law of comparative advantage is sometimes, referred to as the law of comparative cost. A country’s comparative advantage is the Good that it can produce relatively cheaply; that is at lower opportunity cost than its trading partner.

Table 2: Comparative Advantage

Produce	India	Sri Lanka
Wheat	8	1
Cloth	3	2

The only difference between the two Table 1 and Table 2 is that Sri Lanka now produces only 2 yards of cloth per man-hour (2C) instead of 7C. Thus, India has an absolute advantage in the production of both wheat and cloth. According to Adam Smith’s Absolute Advantage Theory in this type of situation trade between two nation is not possible since Sri Lanka has an absolute disadvantage in production of both commodities i.e., wheat and cloth with respect to the India.

Though Sri Lanka has an absolute disadvantage in production of both wheat and cloth but her absolute disadvantage is less in cloth since Sri Lanka labour is 1.5 times ($3 \div 2$) less productive

in cloth and 8 times ($8 \div 1$) less productive in wheat with respect to India. Thus, Sri Lanka absolute disadvantage is less in production of cloth with respect to the production of wheat. Thus, Sri Lanka has comparative advantage in production of cloth. India has an absolute advantage in production of both wheat and cloth with respect to Sri Lanka, but since its absolute advantage is greater in wheat (8:1) than in cloth (3:2). The India has a comparative advantage in production of wheat.

The comparative advantage depends on opportunity cost of a commodity in a nation. For example, in Table 2 in Sri Lanka, one worker can produce one units of wheat (W) or 2 units of cloth (C). Thus, the opportunity cost of 1W in Sri Lanka is 2C. In India one worker can produce 8unit of wheat or 3 units of cloth. Thus, the opportunity cost of 1W in U.S. is therefore $= 3/8 = 0.37$ units of clothing. (Notice how we calculate this opportunity cost by taking the ratio of the figures in the India. column, just as we calculated the cost in Sri Lanka $2/1$). In point 4 we have seen that the opportunity cost of 1W in the India is 0.37, which is less than the opportunity cost of wheat in Sri Lanka. Thus, the India has comparative advantage in producing wheat.

The opportunity cost of cloth in Sri Lanka is 0.5 ($1W/2C$) and in India is 2.6 ($8/3$). Since the opportunity cost of cloth in Sri Lanka is less than in the India, Sri Lanka has a comparative advantage in cloth and specialises in this Good. With trade, India exchanges wheat with Sri Lanka cloth. Sri Lanka export cloth to India and import wheat from India. However, this is not the only rate of exchange at which mutually beneficial trade can take place. India exchanges 8W for 3C domestically for both requires 1 man-hours to produce. India would gain if it could exchange 8W for more than 3C from Sri Lanka. Sri Lanka exchange 8W for 16C since both requires 8 man-hours to produce. Sri Lanka would gain if it could give up anything less than 16C to obtain 8W from the India

To summarize, India would gain if it receives more than 3C for 8W from Sri Lanka, and Sri Lanka would gain if it can give up less than 16C for 8W. Thus, the range for mutually advantageous trade is $3C < 8W < 16C$. The spread between 3C and 16C is 13C, which represents total gains from trade available to be shared by the two nations by trading 8W.

It has been seen that by exchanging 8W for 8C, India gains 5C, and Sri Lanka gains 8C ($16C-8C$) There may be another exchange ratio for example, if India exchanges 8W for 13C. India would gain 10C (since India. exchanges 8W for 3C domestically) and Sri Lanka would gain 3C. So far, the gains from specialization in production and trade have been measured in terms of cloth. Up to this point, all we have to prove is that mutually beneficial trade between two nations is

possible even if one nation is less efficient (absolute disadvantage) in production in both commodities.

2.3.3 Criticisms of the Theory

1. According to the comparative advantage theory the assumption was wrong that the wages between industries do not vary. The workers of retail industry are often paid less as compared to the workers of construction and manufacturing industries. Although, workers of the same industries may get the different wages in the different sectors of economy.
2. The nature and structure of specific commercial ventures might be such that the advantages from exchange may gather just to not very many labourers though the greater part of specialists may really be more awful off in spite of total increases from exchange. The welfare results of exchange for the majority of the general population in such an economy will be negative.
3. The elasticity of demand is varying according to the goods. When any country is passing through the tough times, and global demand is decreasing. If the nation is specializing in producing jewellery, for instance, may find it difficult to trade its products to raise enough money to import food.

Check Your Progress-I

Q1 What is the difference of absolute advantage and comparative advantage?

Ans: -----

Q2 Explain Comparative Advantage theory of International Trade.

Ans: -----

2.4 Opportunity Cost

One of the main drawbacks of the Ricardian comparative cost theory was that it was based on the labour theory of value, which stated that the price of a Good was equal to the amount of labour time going into the production of the Good. Gottfried Haberler gave new life to the comparative cost theory by restating the theory in terms of opportunity costs in 1933. The opportunity cost of a Good is the amount of a second Good that must be given-up in order to release just enough factors of production or resources to be able to produce one additional unit of the first Good. For example, supposing that the resources required to produce one unit of

Good X are equivalent to the resources required to produce two units of Good Y. Then, the opportunity cost of one unit of Good X is two units of Good Y. Haberler made use of opportunity cost curve to express the opportunity cost of one Good in term of the other. The opportunity cost curve can be called as the ‘transformation curve’ or ‘production possibility curve’. According to the opportunity cost theory, a country with a lower opportunity cost for a Good has a comparative advantage in that Good and a comparative disadvantage in other Good.

Assumptions:

1. There are only two countries.
2. There are only two commodities in both the countries.
3. There are only two factors of production such as labour and capital.
4. There is perfect competition in both the factor and good markets.
5. Price of each Good equals its marginal cost.
6. Price of each factor equals its marginal productivity.
7. Supply of each factor is fixed.
8. In each country, there is full employment.
9. No change in technology.
10. Factors are not mobile between two countries. But within countries, factors are totally mobile.
11. There is free and unrestricted trade between the two countries

On the basis of above assumptions, production possibility curve indicates the different combinations of two commodities that a country can produce with the given factor endowments and technology. The slope of production possibility curve or opportunity cost curve is determined by marginal rate of transformation (MRT). MRT is a rate at which marginal unit of Good X is substituted for certain units of Good Y.

The opportunity cost curve may be a straight line, convex to the origin or concave to the origin, depending on whether MRT between X and Y Goods is constant, increasing or decreasing respectively as shown in Figure 1.

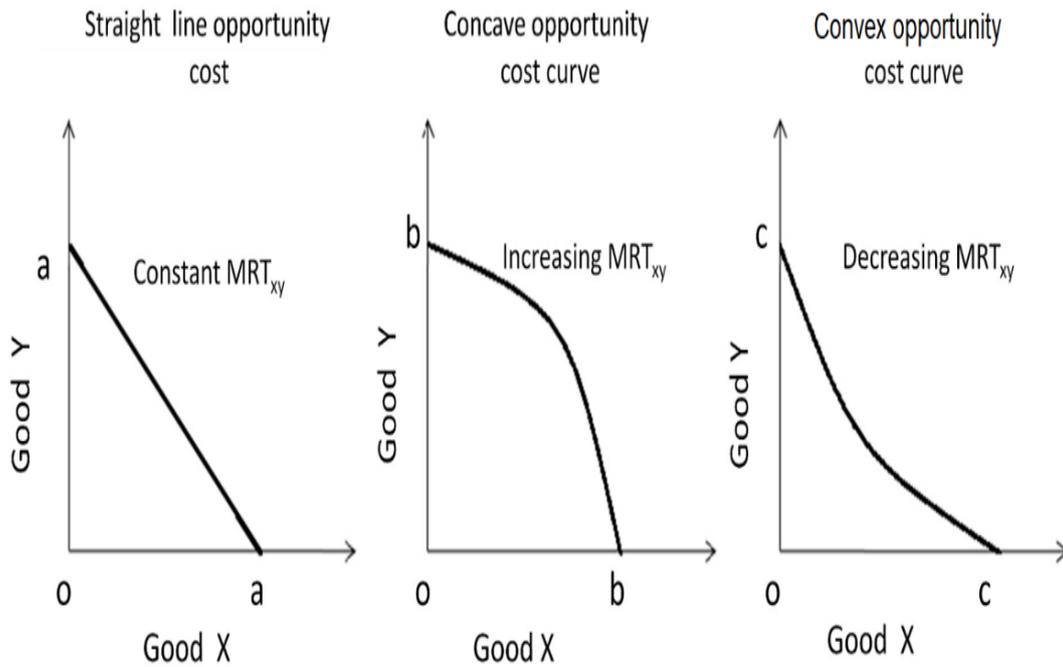


Figure 1

International trade between two countries can be analysed under various types of production possibility curves or opportunity cost curves.

2.4.1 Constant Opportunity Cost and International Trade

When MRT between X and Y Goods remains constant then opportunity cost curve will be a falling straight line. If the slopes of opportunity cost curves in two countries are the same, so that the opportunity cost curves are parallel to each other (as shown in Figure 2), no trade can be possible. It is because of the fact that in such cases the cost ratios of two Goods in both the countries are equal.



Figure 2

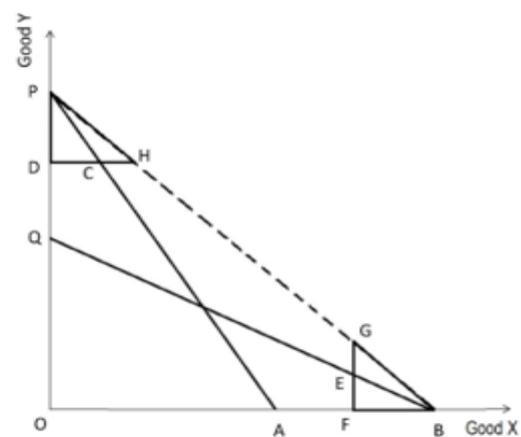


Figure 3

The trade is possible only when the slopes of the opportunity cost curves are different. In Figure 3, PA and QB are the opportunity cost curves of country A and country B respectively. Under the situation of autarky, if country A produce and consume at point C at its opportunity cost curve, i.e., PA line then it will have DO quantity of Good Y and DC quantity of Good X. However, if country B produce and consume at point E at its opportunity cost curve, i.e., QB line then it will have FO quantity of Good X and EF quantity of Good Y. However, the relatively greater steepness of PA line shows that country A has a comparative advantage in the production of Good Y, whereas the relatively greater flatter of QB line reveals that country B has comparative advantage of Good X. Therefore, country A will specialise in the production of Good Y and country B will specialise in the production of Good X. If country A produce only Good Y then it can produce maximum OP quantity of Good Y at its opportunity cost line PA. Similarly, country B can produce maximum OB quantity of Good X if country B produce only Good X at its opportunity cost line QB. Both countries will exchange Goods in the ratio indicated by the dotted international commodity-price line PB.

Suppose country A want to consume both commodities at point H. At this point, the country A will export PD quantity of Good Y and import DH quantity of Good X. After international trade, country A can consume more quantity of Good X, i.e., $CH = (DH-DC)$. Similarly, if country B want to consume both commodities at point G then it will export BF quantity of Good X and import FG quantity of Good Y. Therefore, the gain from trade for country B will be $GE = (GF-EF)$ quantity of Good Y.

2.4.2 Increasing Opportunity Cost and International Trade

If MRT between X and Y Goods goes on increasing, then opportunity cost curve or production possibility curve will be convex to the origin. In Figure 4, AA represents the production possibility curve of country A and BB in Figure 5, is the production possibility curve of country B. The comparison of the shape of the production possibility curves of both countries makes it clear that opportunity cost of Good X, in terms of Good Y, is lower in country A and higher in country B. In other words, country A is better suited for the production of Good X and country B for the production of Good Y.

In the case of country, A under the absence of international trade the country is in equilibrium at E, where the production possibility curve AA tangents to the country' indifference curve, i.e, II curve. At this point, country A is producing and consuming OX quantity of Good X and OY quantity of Good Y. The slope of the production possibility curve AA at point E is denoted

by P_aP_a line. Similarly, country B will be in equilibrium at E_1 under the absence of international trade as shown in Figure 5 where the production possibility curve BB tangents to the country's indifference curve, i.e., I_1I_1 curve.

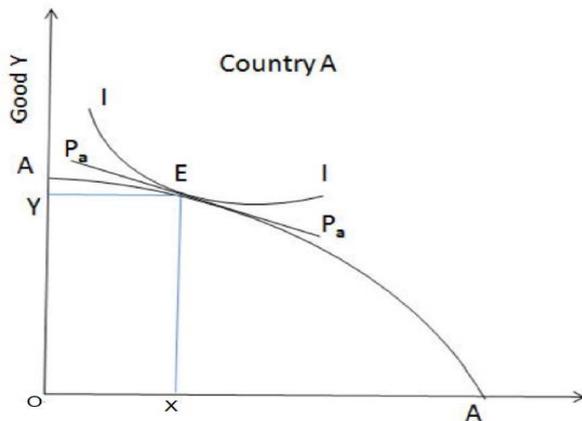


Figure 4

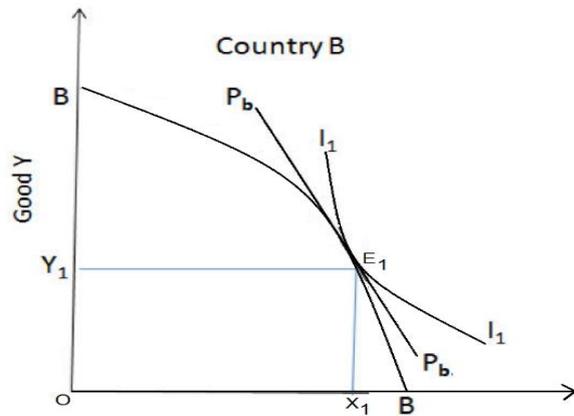


Figure 5

At this point, country B is producing and consuming OX_1 quantity of Good X and OY_1 quantity of Good Y. The slope of the production possibility curve BB at point E_1 is denoted by P_bP_b line. The slope of P_aP_a line is relatively flatter than that of P_bP_b line. This indicates that Good X is cheaper in country A and Good Y is in country B. If both the countries enter into trade with each other, the international price ratio is most likely to be somewhere in between the pre-trade ratios in both the countries. In other words, the international price line would neither be as flat as price line P_aP_a of country A, nor be steep as the price line P_bP_b in country B. The slope of the international price line would be somewhere in between the price lines of both the countries. In Figure 6 and Figure 7, P_iP_i represents a possible international price line. If P_iP_i represents international price line, country A will produce at point N where its production possibility curve AA tangents to international price line P_iP_i . At this point it will produce more quantity of Good X at the cost of Good Y. Country A will expand the output of Good X by MN by contracting the output of Good Y by EM . If country A wishes to maintain consumption of Good X at the old level of OX , it can now export MN quantity of Good X and get in exchange ME_2 quantity of Good Y. Hence, the gain from trade to country A is equivalent to EE_2 of Good Y. the country A is now able to be at a higher equilibrium point E_2 on its indifference curve I_2I_2 . In the absence of trade, this point cannot be reached by country A as it is beyond its production possibility curve.

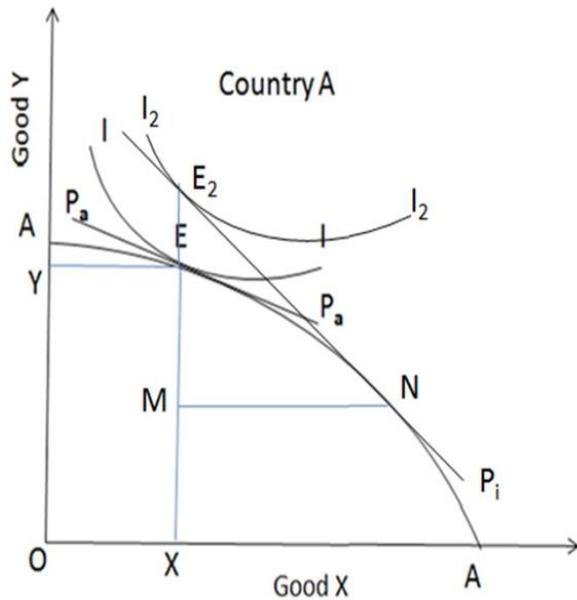


Figure 6

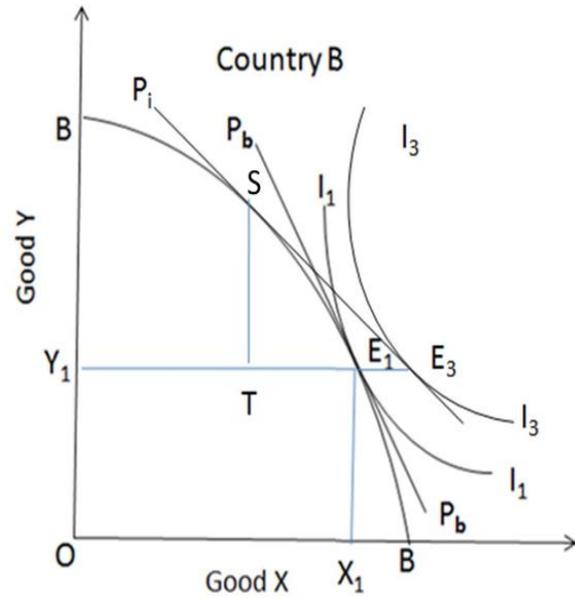


Figure 7

Similarly, under trade, country B would expand production +of Good Y by TS by contracting Good X output by TE₁. If it would like to maintain pre-trade level of consumption of Good Y, it can export TS quantity of Good Y and obtain TE₃ quantity of Good X and attain equilibrium at point E₃ which cannot be reached under the absence of international trade. The gain to country B will be equivalent to E₁E₃ of Good X.

In the above analysis, it is assumed that the country A would wish to maintain the pre-trade level of consumption of Good X and the country B the pre-trade consumption of Good Y. But the real situation may be different. Consumption of these commodities by the respective countries may be less or more than under the absence of international trade so that community welfare could be maximized.

2.4.3 Decreasing Opportunity Cost and International Trade

If MRT between X and Y Goods goes on decreasing, then opportunity cost curve or production possibility curve will be concave to the origin.

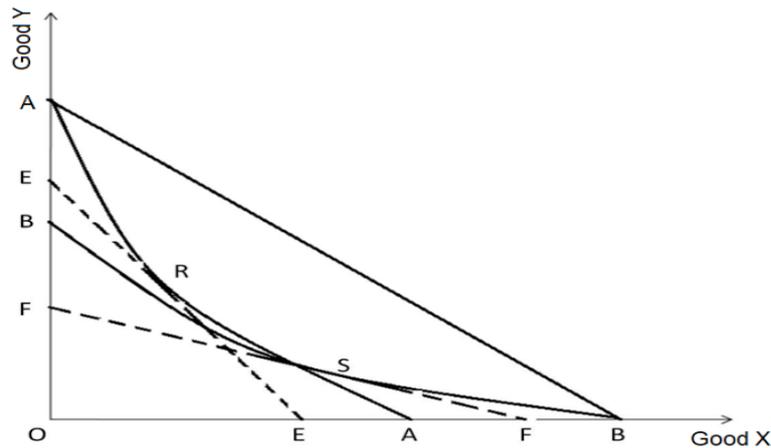


Figure 8

In Figure 8, AA and BB are the production possibility curves for country A and country B respectively. In the situation of autarky, production equilibrium of country A is determined at R point, where its domestic price line EE tangents to its production possibility curve AA. Similarly, the production equilibrium of country B is at S point. Under the situation of international trade, the international price ratio is depicted by AB line. The relatively greater steepness of EE line to international price line AB shows that country A will specialize in the production of Good Y. On the other hand, the relatively greater steepness of international price line AB than FF line indicates that country B will specialize in the production of Good X. In other words, country A will export Good Y and import Good X; whereas country B will export Good X and import Good Y. The equilibrium point for both the countries, determined by tangency between community indifference curve and international price line will lie somewhere on AB line. Such point will indicate a higher level of satisfaction than either at R or S, signifying the gain from trade to the both countries.

Haberler's opportunity cost theory can be discussed under two heads namely

A. Superiority over Comparative Cost Theory: Haberler's opportunity cost theory is regarded as superior to the comparative cost theory of international trade formulated by the classical economists like Adam Smith and David Ricardo. The arguments put for the superiority are summarized below:

- 1. Dispenses with the Unrealistic Assumption of Labour Theory of Value:** The classical theory is based on the unrealistic assumption of labour theory of value. But Haberler's opportunity cost theory dispenses with such unrealistic assumption and is more realistic.
- 2. Analyses the Pre-trade and post-trade situations Completely:** The opportunity cost theory analyses pre-trade and post-trade situations under constant, increasing and

decreasing opportunity costs, whereas the comparative cost theory is based on the constant cost of production within the country with comparative advantage and disadvantage between the two countries. Hence, Haberler's opportunity cost theory is considered to be more realistic over the classical theory.

- 3. Highlights the Importance of Factor Substitution:** The opportunity cost theory highlights the importance of factor substitution in trade theory. It is vital in the production process especially for a growing economy.
 - 4. Facilitates the Easy Measurement of Opportunity Cost:** The opportunity cost can be measured easily.
 - 5. Explains the time, reason etc. about Trade:** The opportunity cost theory explains why trade takes place or when it should take place, showing how the gains shared between the countries etc.
 - 6. Explain about the Complete Specialization:** It explains when complete specialization is possible and when it is not possible etc.
- B. Criticisms:** Haberler's opportunity cost theory is also not free from criticisms. It has been vehemently criticized by Jacob Viner in his —Studies in the Theory of International Trade (1937). Some of the important criticisms are listed below:
- 1. Inferior as a Tool of Welfare Evaluation:** Jacob Viner says that opportunity cost approach is inferior as a tool of welfare analysis when compared to classical real cost approach. Further he says that the doctrine of opportunity cost fails to measure real costs in the form of Sacrifices or Disutilities.
 - 2. Fails to consider Changes in Factor Supplies:** Viner further criticizes that the production possibility curve or opportunity cost theory do not consider changes in the factor supplies.
 - 3. Fails to consider Preferences for Leisure against Income:** Viner also criticizes the opportunity costs theory on the ground that the production possibility curve does not take into account the preference for leisure against income.
 - 4. Unrealistic Assumptions:** Haberler's opportunity cost theory is based on many assumptions like two countries, two commodities, two factors, perfect competition, perfect factor market, full employment, no technical change etc. All these assumptions are unrealistic because they do not hold in the real world.

Check Your Progress -II

Q1. Briefly explain Constant opportunity cost and international trade.

Ans: -----

Q2. Given any two criticisms of Haberler's theory of opportunity cost.

Ans: -----

2.5 Heckscher-Ohlin theory of International Trade

In the preceding sections, we have discussed the comparative cost basis of trade between countries. No mention was made therein of factor endowments, which affect comparative cost differences. The theory sought to explain how comparative cost differences made trade mutually advantageous to the trading partners but did not offer any hypothesis as to how the pre-trade cost ratios differ between countries. The modern theory, on the other hand, goes behind these pre-trade cost ratios and seeks to predict the pattern to trade on the basis of the characteristics of pre-trade equilibria. Thus, modern theory (Heckscher Ohlin) begins where the neo-classical (opportunity cost) theory of comparative advantage leaves off.

In 1919 Eli Heckscher published a paper on, "The Effects of Foreign Trade on the Distribution of Income" in which he explained how factor endowments affect comparative cost differences. Unlike the classical theory, which make these differences dependent on the productivity of only one factor viz. labour, Heckscher's theory, which has been subsequently developed considerably by Bertil, Ohlin takes a multiplicity of factors into account. It makes the possibilities and pattern of trade dependent on these quantitative differences and the degrees of intensity with which the factors of production are used. However, Ohlin is of the view that even if two countries are equally endowed, profitable trade may still be possible between them, because differences in demand patterns could give rise to differences in prices of the products.

2.5.1 Assumptions

The assumptions of the Heckscher-Ohlin (H-O) theory are enumerated below:

1. Two by Two by Two Model
2. Perfect Competition in Both Commodities and Factor Markets in Both Nations
3. Tastes and Preferences of Consumers are Identical in Both Nations
4. Production Functions of the Two Commodities have Different Factor Intensities
5. Both Nations use the Same Technology
6. Incomplete Specialization in Both Nations

7. Constant Returns to Scale

8. Perfect Mobility of Factors of Production within nation but no International Factor Mobility

2.5.2 Explanation of the Theory

Differences in demand can be due to different patterns of income distribution, or the organisation of production activity as well as other institutional factors. A distinction, must, therefore, be made between physical abundance of a factor and its cheapness. The latter depends upon a balance between demand and supply, in which the former, when it outweighs the latter, can make the balance of comparative advantage against the abundant factor and in favour of the relatively scarce one. Also, where factor-substitution at the margin is possible, change in relative factor prices, e.g., a rise in wage rates may convert the labour-intensive Goods into capital intensive ones.

Furthermore, factor endowments are affected by inter-regional and international trade. Thus, there is a two- way interaction between trade and economic structure of a country and also the distribution of income which effects the pattern of demand. Heckscher was of the view that free trade tends to equalize relative return of factors of production.

On the face of it, the theory seems to be quite reasonable and pragmatic. It suggests that countries which have an abundance of a factor (e.g. labour) should specialize in the production of those products in which labour intensive technology may be more efficient, because abundance would make wage rates and wage costs lower and thus give it a comparative advantage in labour intensive products. It can then export these products and import capital intensive product from those countries which have an abundance of capital relative to labour. Similarly, it could import land intensive products from those countries which have an abundance of land relative to labour or capital. Thus, each country will end to specialize in the products which utilize the factor of which it has an abundant supply.

Another significant aspect of international trade highlighted by Heckscher-Ohlin's factor endowment approach to international trade is in respect of distribution of incomes, which results in shifts in production. International trade leads to specialization by each country in one of the specific type of Goods, such as capital intensive or labour intensive. As a result, there is transference of resources and changes in capital/labour ratios in the production of both commodities in both the countries. If factor prices reflect the marginal productivities of factors, then in the capital abundant country real wages will tend to fall and will tend to be redistributed

in favour of capital and against the working classes. The impact in labour abundant country will be the opposite.

A treatment of international economics shall be incomplete until we deal with the demand side also, because it is the interaction between demand and supply which determines the equilibrium of the economy. This can be demonstrated with the help of the following diagrams, referring to two countries, which we assume, have identical factor endowments, technologies, production functions and therefore, identical production possibility (substitution/ transformation) curves. But tastes and preferences and, therefore, demand curves (Community indifference curves) are different.

AB curves represents the identical production possibilities of the countries. Pre-trade price ratios (terms of trade) are represented by tangent lines P_1 (Country A) and P_3 (Country B) which have different shapes. The difference is not due to supply functions, but demand functions which are represented by the curves D_1 (Country A) and D_3 (Country B). These provide the basis for gains from trade. As trade begins price ratios (terms of trade) change and equalize along P_2 curve. In country A production and consumption are given by the coordinates of point S_1 in the pre-trade period. But as price ratios change to P_2 line, production shifts to the coordinates of point T_1 with consumption rising to point R_1 on the higher indifference curve D_2 . The country will be importing a a_1 equivalent from country B and exporting $b^1 b^2$ of the commodity.

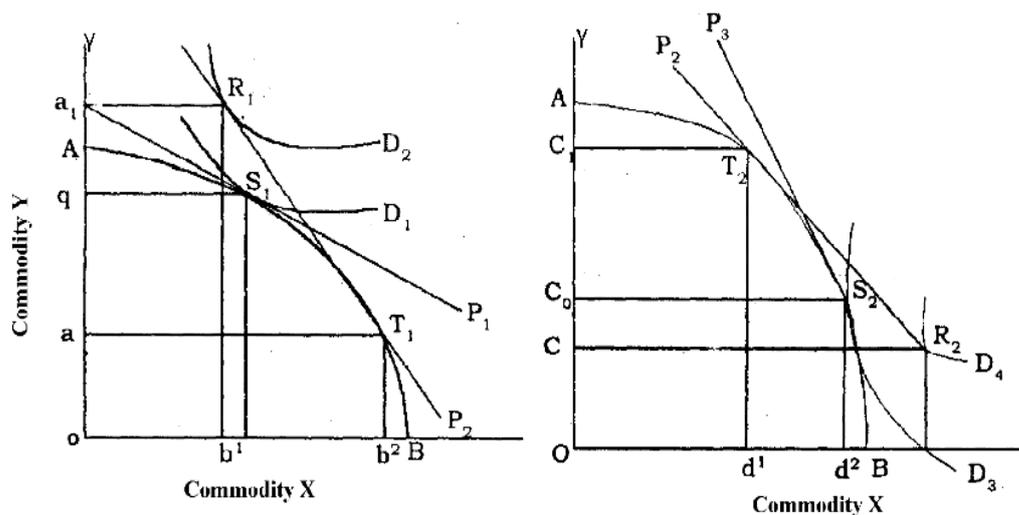


Figure 9

Similarly, in country B, with price ratios shifting from P_3 to P_2 line, production of the two commodities will shift from the coordinates of S_2 to those of point T_2 and consumption will

advance to point R_2 on the indifference curve D_4 . The country B will now import d^1d^2 amount of commodity X and export c_0c_1 amount of commodity Y.

Thus, the structure of production and consumption are simultaneously transformed as a result of differences in consumer preferences, and both countries gain in economic welfare resulting from specialization, improvements in economic efficiency and increased consumption.

2.5.3 Criticisms

Despite the above merits of Heckscher-Ohlin theory, it has some shortcomings which are briefly discussed below:

1. Tastes are largely similar between countries and, therefore, demand factors are homogeneous and identical. Thus, community indifference curves become possible and differences in pre-trade price ratios are then attributed to differences in production possibilities frontiers of the countries involved in trade. At the same time production possibilities frontiers become a function of its factor endowments and the production functions of the various commodities which are assumed to be linear homogeneous since the production functions are further postulated to be identical in the two countries. Therefore, any differences in the shape of production possibilities frontiers can be due only to differences in factor endowments. With a single technique of production for commodity X, and a single technique for commodity Y, the two commodities can always be classified unambiguously into labour-intensive or land-intensive relative to the one or the other commodity. The only exception to this rule would be the case where the expansion paths of the two commodities coalesce over the entire range. But this would then become akin to a single commodity case from our point of view, and, therefore, outside the purview of the present discussion. Therefore, in this particular case, an unequal classification of commodities by factor intensity is possible. In such cases, known as factor-reversal, Heckscher-Ohlin theorem becomes very difficult to follow since it is based on the implicit assumption that commodities can indeed be classified a priori, in terms of factor intensity. When this implicit assumption is not met, the structure of trade need not coincide with the pattern implicit in Heckscher-Ohlin theorem. Similarly, when the ranking of commodities is contradictory between countries, the logic of Heckscher-Ohlin theorem breaks down because it is impossible for both countries, to export the commodity which uses more intensively their abundant factor.

2. **Leontief Paradox:** In the Heckscher-Ohlin theory it has been assumed that relative factor prices reflect the relative supplies of factors. That is, a factor which is found in abundance in a country will have a lower price and vice versa. This means that in the determination of factor-prices supply outweighs demand. But if demand for factors prevails over supply, then factor prices so determined would not conform to the supplies of factors. Thus, if in a country there is abundance of capital and scarcity of labour in physical terms but there is relatively much greater demand for capital, then the price of capital would be relatively higher to that of labour. Then, under these circumstances, contrary to its factor-endowments, the country may export labour-intensive Goods and import capital-intensive Goods. Perhaps it is this which lies behind the empirical findings by Leontief that though America is a capital abundant and labour-scarce country, in the structure of its imports capital-intensive Goods are relatively greater whereas in the structure of its exports labour-intensive Goods are relatively greater. As this is contrary to the popularly held view, this is known as Leontief Paradox

3. **Difference in Preferences or Demands for Goods:** Against Heckscher-Ohlin theorem, it has also been pointed out that differences in tastes and preferences for Goods or, to put it in other words, differences in pattern of demand also give rise to trade between the countries. This is because under differences in demand or preferences for Goods, the commodity price ratios would not conform to the cost-ratios based on factor endowments. Let us take an extreme example. Suppose there are two countries A and B with same factor-endowments. According to Heckscher-Ohlin theorem, with same factor endowments cost-ratio of producing the two commodities and hence the commodity price ratio would be the same. Hence there is no possibility of trade between the two countries on the basis of Heckscher-Ohlin theorem. However, trade between the two countries is possible if the demand pattern or preferences of the people of the two countries for wheat and rice greatly differ.

Check Your Progress-III

Q1. Critically examine Heckscher-Ohlin theory of international trade.

Ans: -----

Q2. What is Leontief Paradox?

Ans: -----

2.6 Factor Price Equalisation

The factor price equalisation theory is an important corollary of the H-O theory of trade. If there is a free international movement of factors, the prices of the factors of production undisputably get equalised. However, the classical theorists as well as Heckscher and Ohlin had assumed an international immobility of factors. This led to the crucial question of how the international trade would affect the prices of the factors of production) Heckscher, on the one hand, suggested that international trade in commodities would act as a substitute for the international mobility of factors leading to a complete equalisation of the costs or factor prices. Ohlin, on the other hand, recognised that the international trade might result in only an incomplete or partial equalisation of prices of factors. The writers like Samuelson (1948) and Lerner (1953) discussed the possibility of a complete equalisation of factor prices.

The factor price equalisation picks up the argument that the labour-abundant country specialises in the export of the labour-intensive commodity because labour is a relatively cheaper factor compared with capital. On the other hand, the capital-abundant country specialises in the export of capital-intensive commodity on account of capital being a relatively cheaper factor there. The pressure of international demand renders the abundant factor scarce and its price starts rising. At the same time, the import of the commodities that require more input of scarce factor relieves the domestic pressure of demand for that factor, resulting in a fall in its price. This process of change in prices of factors will ultimately bring about an equality in the prices of factors. It is in this sense that free international trade in commodities acts as a substitute for the international mobility of factors.

2.6.1 Samuelson's Analysis of Factor-Price Equalisation Theorem

Samuelson's analysis of the factor-price equalisation is based upon the following assumptions:

1. There are two countries, say A and B.
2. These countries produce two commodities, say X and Y.
3. The production of these commodities requires only two factors of production—labour and capital.
4. There is free competition in the product and labour markets.
5. There is an absence of tariff and transport costs.

6. The production function related to each commodity is identical and homogeneous of degree first. It implies the production is governed by constant return to scale.
7. The factor-intensities are different for the two commodities. For instance, the commodity X is labour-intensive, while commodity Y is capital-intensive. It means there is an absence of reversal of factor intensity.
8. Capital and labour are qualitatively identical in the two countries.
9. The availability of factors is quantitatively different in the two countries. The country A is supposed to be labour-abundant whereas country B is capital-abundant.
10. There is absence of complete specialisation. It means both the countries continue to produce both the commodities even after trade takes place between them.
11. The factor supply is fixed in the two countries.
12. There is full employment of both the factors.
13. There is no mobility of factors between the countries.
14. The marginal physical product of each factor is diminishing. (xv) The tastes are identical in the two countries.

Before trade, there is low capital-labour ratio in country A and a high capital-labour ratio in country B. As trade commences, the labour-abundant country A exports the labour-intensive commodity X and country B exports the capital-intensive commodity Y. The export of labour-intensive commodity X by A creates relative scarcity of labour and consequent rise in wage rate. It also leads to a rise in capital-labour ratio. On the opposite, the export of capital-intensive commodity by country B will result in its scarcity there. It will cause a rise in the price of capital (rate of interest) and a consequent fall in the capital-labour ratio. These relative changes in K-L ratio will continue until the K-L ratios in both the countries become exactly equal. Along with it, the prices of the two factors also undergo changes (rise in wage rate in country A and rise in interest rate in country B) in such a manner that there is ultimate equalisation of prices of two factors in both the countries.

2.6.2 Hicksian Analysis of Factor Price Equalisation Theorem

J.R. Hicks attempted to provide a proof for the *absolute* factor price equalisation. He retained all the assumptions taken by Samuelson, It is assumed that price of labour is low in the capital-abundant country while it is higher in country B which is capital-abundant. On the contrary, the price of capital is high in country A but it is low in country B. After trade, country A exports labour-intensive commodity X and B exports capital-intensive commodity Y. l_x and l_y are the labour co-efficients for X and Y commodities and k_x and k_y are the capital co-efficients. w_a and

w_b are the wage rates in the two countries. r_a and r_b are the rates of interest in these two countries. It is assumed that the unit cost of producing X and Y commodities becomes equal in the two countries after the determination of trade equilibrium.

Unit cost of commodity X

$$l_x w_a + k_x r_a = l_x w_b + k_x r_b$$

Dividing both sides by k_x

$$(l_x/k_x) w_a + r_a = (l_x/k_x) w_b + r_b \quad r_a - r_b = (l_x/k_x) w_b - (l_x/k_x) w_a$$

$$r_a - r_b = (l_x/k_x) [(w_b - w_a)] \quad (i)$$

Unit cost of commodity Y

$$l_y w_a + k_y r_a = l_y w_b + k_y r_b$$

Dividing both sides by k_y

$$(l_y/k_y) w_a + r_a = (l_y/k_y) w_b + r_b \quad r_a - r_b = (l_y/k_y) w_b - (l_y/k_y) w_a$$

$$r_a - r_b = (l_y/k_y) (w_b - w_a) \quad (ii)$$

From (i and ii)

$$r_a - r_b = (l_x/k_x) (w_b - w_a) = (l_y/k_y) (w_b - w_a)$$

If trade results in the equalisation of factor-intensity in the two products X and Y and $r_a = r_b$, there will also be $w_a = w_b$. It shows that after-trade equilibrium results in the equalisation of factor prices.

2.6.3 Lerner's Analysis of Factor Price Equalisation Theorem

Lerner has attempted an analysis about the factor price theorem on the basis of a series of assumptions.

1. There are two countries A and B.
2. Each country can produce two Goods X and Y, given the factor endowments and techniques of production.
3. There are two factors of production-labour and capital.
4. The production functions are linear homogeneous in both the countries. (v) Country A is labour-abundant and B is capital-abundant.
5. There are the conditions of perfect competition in both the countries.
6. There is absence of transport costs.

7. Commodity X is labour-intensive while commodity Y is capital-intensive.
8. There is no factor-intensity reversal.

In the labour-abundant country A, originally price of labour is lower relative to that of capital. On the opposite, the price of capital is lower in country B than that of labour. Consequently, country A will produce and export labour-intensive commodity X. As there will be greater substitution of labour for capital, the price of labour will rise and that of capital will decline resulting in equalisation of factor prices. Similarly, the capital-abundant country B will specialise in production and export of capital-intensive commodity Y. The substitution of capital in place of labour will increase the price of capital in this country. Ultimately the factor prices ratio in this country will also get equalised.

However, if there is *factor-intensity reversal* i.e., X is labour-intensive in country A but capital-intensive in country B, both the countries will produce it through different techniques. But as they cannot export the same product to each other, the factor price equalisation will fail to take place.

2.6.4 Kindelberger's Analysis of Factor Price Equalisation

Kindelberger has explained the factor price, equalisation by involving factor proportions, product prices and factor prices. In this regard, he has relied upon the figure given below.

In Fig. 10 (upper portion of the figure, i.e., part-i), wages and interest are measured along the horizontal scale and capital-labour ratio (K/L) is measured along the vertical scale. The horizontal lines AA' and BB', measure factor proportions in the capital-abundant country A and labour-abundant country B respectively. SS, is the schedule related to capital-intensive Good steel and CC is the schedule related to labour-intensive Good cloth. In the Fig. 10 (Lower portion of the figure i.e. part-ii), relative price of cloth is measured along the vertical scale. The curve PP, measures relative price of cloth.

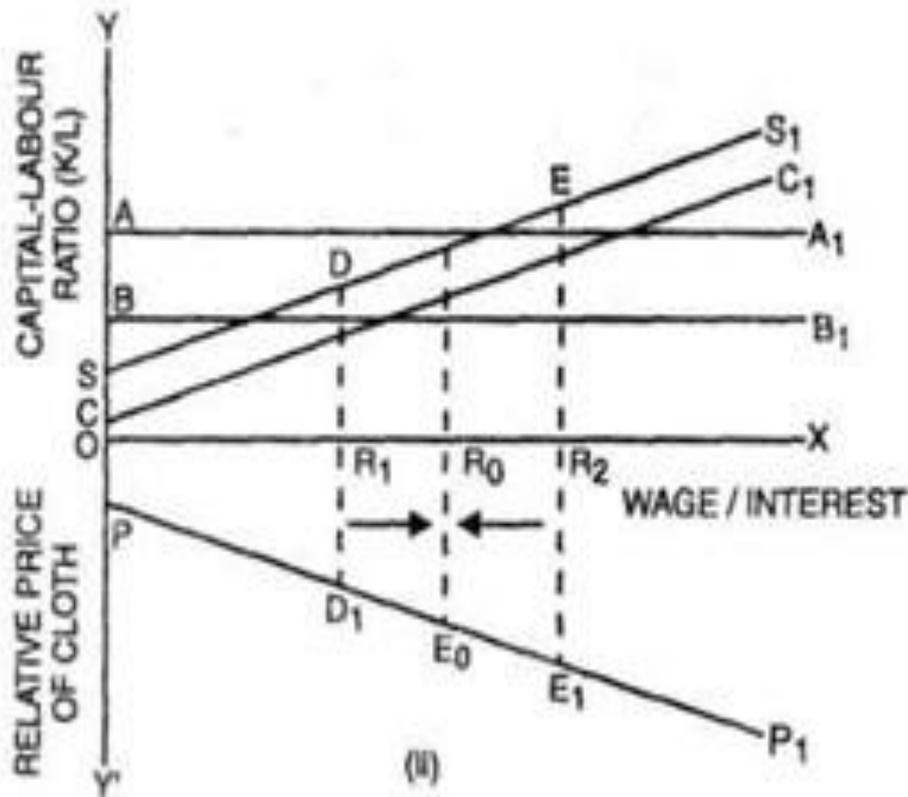


Figure 10

The domestic demand conditions determine the production of steel and cloth before trade. Wage rate is lower in country A than in country B, whereas the rate of interest is higher in A than in B. The relative price of cloth in A is R_1D_1 and it is R_2E in country B. As trade takes place, the wage rate will rise in country A and fall in country B. The interest rate, on the other hand, will fall in country A but rise in country B. The relative price of cloth in both the countries will tend to approximate to R_0E_0 , when wage-interest ratio becomes equal at R_0 .

2.6.5 Sodersten's Analysis of Factor Price Equalisation Theorem

Bo Sodersten recognises that the free trade can lead to the equalisation of *relative* factor prices in two countries if neither country specialises completely. It can be explained through Fig. 11. In this figure, factor price ratio (w/r) is measured along the horizontal scale. In Part (i) of the Fig. 11, the commodity price ratio (P_x/P_y) is measured along the vertical scale. In part (ii) of the Fig. 11, the factor intensity (K/L) is measured along the vertical scale. Given that there is absence of complete specialisation in both countries A and B, the line OR in Part (i) of Fig. 11 shows a common factor price ratio $(w/r)_0$ and a common commodity price ratio $(P_x/P_y)_0$. In Part (ii) of Fig. 11., the lines X and Y represent the capital-intensity of X and Y commodities respectively.

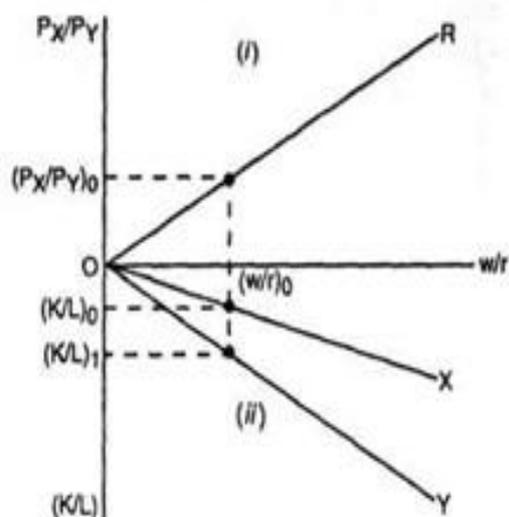


Figure 11

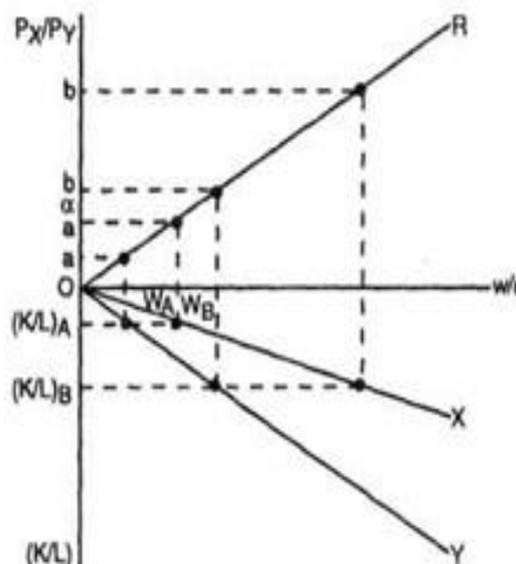


Figure 12

The commodity Y has greater capital-intensity (K/L) than the commodity X, in case of which the capital-intensity is low at (K/L).

If there is complete specialisation in one or both the countries, there cannot be equalisation of absolute or relative factor prices. It can be shown through Fig. 12.

Under autarchy, the range of relative commodity prices for country A when both countries specialise completely is indicated by aa . In case of country B, the range of relative commodity prices is denoted by bb . These two ranges do not overlap, therefore at least one of the two countries must specialise completely. As both countries specialise completely, the free trade commodity price ratio is α which lies outside the autarchy price ranges. The relative wage rate in country A cannot rise above w_A , whereas that of country B cannot fall below w_B . In such condition, there cannot be relative factor price equalisation. So there cannot also be absolute factor price equalisation.

2.6.6 Obstacles to Equalisation of Factor Prices

The factor price equalisation theory developed by Samuelson has been found to be deficient by several economists including Meade and Ellsworth. They raised serious doubts about the validity of this theory on account of highly restrictive and unrealistic assumptions. They believe that there can only be partial equalisation of factor prices.

1. Tariff and Non-tariff Barriers: This theory rests upon the assumption that there are no tariff and non-tariff barriers to trade. In actual reality, such barriers do exist. It was on

account of them that Ohlin ruled out the possibility of complete equalisation of factor prices.

2. **Transport Costs:** The factor price equalisation theory takes another unrealistic assumption that transport costs are absent. In fact, the import and export of commodities do involve transport costs which not only have restrictive effect on the product mobility but may also affect the comparative advantages of the trading countries. The existence of transport costs are likely to prevent the equalisation of factor prices.
3. **Complete Specialisation:** This theory assumes that the trading countries are engaged in the production of both the commodities. In other words, there is only partial or incomplete specialisation. When the trading countries are of unequal size, there is possibility that there is complete specialisation in at least the smaller country. In the event of complete specialisation, there is little possibility of complete factor price equalisation.
4. **Identical Production Function:** Samuelson's factor price equalisation theory assumes that production functions are identical in the two trading countries. Even if the two countries have the same resources, yet their productive capacities are different because of natural, technical and sociological differences between them. The diversities in their production functions may create hindrance in the equalisation of factor prices.
5. **Absence of Perfect Competition:** This theory rests upon the assumption that there are the conditions of perfect competition in the product and factor markets. In actual reality, the perfect competition does not exist. In the real market situations like oligopoly or monopolistic competition, there are rigidities in the product and factor markets that prevent the possibility of equalisation of factor prices.
6. **Increasing Return to Scale:** The factor price equalisation theorem assumes that there is a first-degree homogeneous production function which implies that the production is governed by the constant returns to scale. If the economies of scale are present, according to Meade, the theory will become invalid for two reasons. Firstly, it will result in the emergence of monopolies and consequent breakdown of the apparatus based on the assumption of perfect competition. Secondly, the increasing return to scale will lead to complete specialisation which again rules out the possibility of equalisation of factor prices.
7. **Changes in Factor Supplies:** The theorem takes the assumption that the factor supplies remain fixed in the trading countries. In actual reality, however, there are changes in factor supplies and these changes will create difficulties in the equalisation of factor prices.
8. **Dynamic Conditions:** The factor price equalisation theory assumes static conditions such as fixed factor endowments, techniques and same taste pattern in the trading countries. In

the actual dynamic conditions, the continuous changes take place in all the relevant factors and variables and many often it is found that the differences in factor prices get widened rather than being eliminated. Such a trend has been confirmed by economists like Kindelberger, Myrdal and Sodersten.

- 9. Multi-country Multi-commodity and Multi-factor Trade:** The theorem can deal efficiently only in respect of trade involving two countries, two commodities and two factors. The theory is likely to become indeterminate in the multi-country, multi-commodity and multi-factor trade situation. If the number of productive factors exceeds the number of commodities, the theory breaks down completely.
- 10. Factor-Intensity Reversal:** This theory assumes that there is an absence of factor-intensity reversal. It means the labour-surplus country will export only labour-intensive commodity and the capital-surplus country will export the capital-intensive commodity. If there is reversal of factor intensity, the factor price equalisation theorem will fail to hold.

The above arguments suggest that factor price equalisation cannot take place in actual dynamic realities. It, however, does not mean that the theorem is completely invalid. It only means that the assumptions of this theorem, being unrealistic, lead to an unrealistic conclusion. There is little doubt that the movement of products from one country to another can at least reduce the factor price differentials. In the absence of trade, such differences are likely to be considerably large.

Check Your Progress - III

Q1. What do you mean by factor price equalisation?

Ans: -----

Q2. Give any two obstacles of equalisation of factor prices?

Ans: -----

2.7 Gains from Trade: Meaning

The gain from trade is the fundamental reason why different countries engage themselves in transactions with one another. Right from the time of the pre-classical Mercantilists, who maintained that export surplus enriched a country, upto the modern times, the writers of all shades of opinions, have believed that the consideration of gain alone is the basis of all

international transactions. The present chapter is concerned with the meaning and measurement of gains from trade and some other issues related to them.

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 increase in national income, differences in comparative costs, and terms of trade. The modern theorists considered the gains from trade as the gains resulting from exchange and specialisation. Some approaches to the concept of gains from trade are discussed. In the opinion of Adam Smith, the gains from international trade are in the form of the increased value of product and improvement in the productive capacity of each trading country. The international trade leads to export of the commodity which is less in demand in the home market and import of the commodity which is strong in demand. It enables each trading country to derive the maximum welfare and obtain maximum possible export earnings. When each country specialises in the production of the commodity in which it has cost advantage, there is optimum allocation of productive resources. Coupled with increased division of labour, specialisation reduces the cost structure and enlarges the size of market for each trading country. As a consequence, the world production and welfare get maximised through international trade.

Ricardo viewed the gain from trade as an objective entity. According to him, the specialisation in production and trade on the basis of the principle of comparative costs results in saving of resources or costs. Through the cheaper availability of commodities required by each country from abroad, every country can increase the 'sum of enjoyments' and also increase the 'mass of commodities. In the words of David Ricardo, "The advantage to both places is not that they have any increase" in value but with the same amount of value they are both able to consume and enjoy an increased quantity of commodities." Malthus had expressed in this regard views similar to those of Adam Smith. The gain from trade, according to him, consists of "the increased value which results from exchanging what is wanted less for what is wanted more." The international exchange on this basis increases "exchangeable value of our possession, our means of enjoyment and our wealth." 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 15 units of X and 15 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 10 units of X and 15 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 of trade can be explained in terms of Marshall-Edgeworth offer curve through Fig. 13.

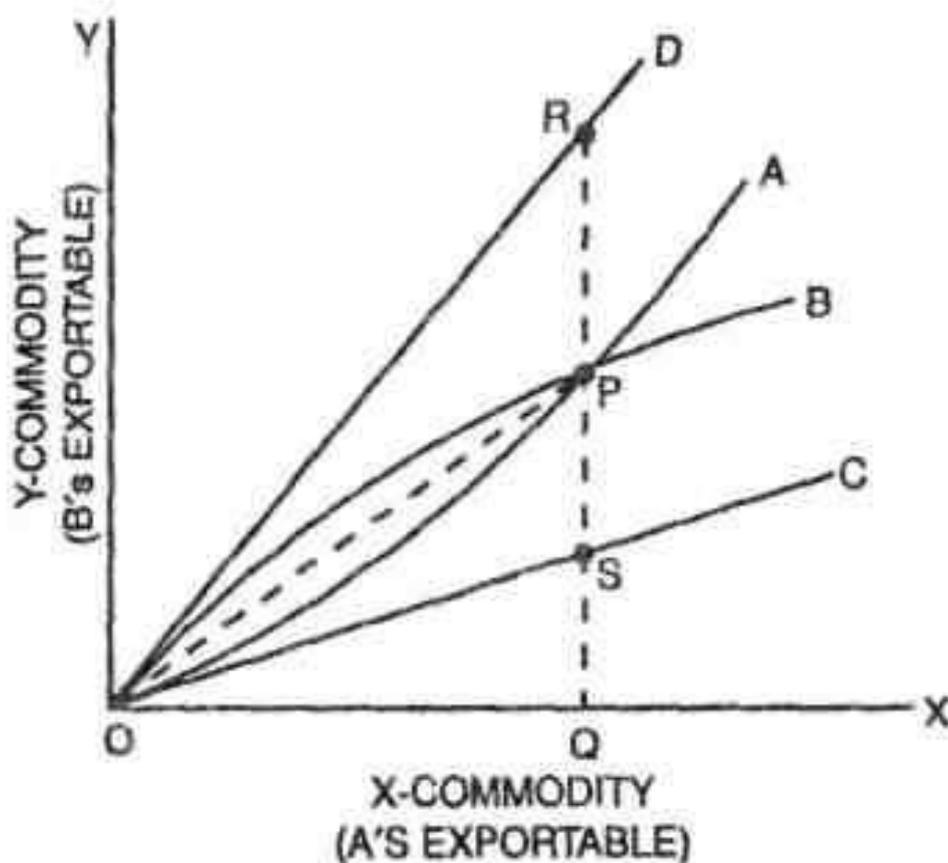


Figure 13

In Fig. 13, 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 = $Q_m/Q_x = PQ/OQ$ = 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 X for OQ units of Y. 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.

Taussig maintained that the gains from international trade can accrue to a trading country in the form of a rise in income. As trade brings about an expansion of the export industry, the employers, in order to absorb more labour in this industry, start offering higher wages. This leads to a rise in the money wages in other industries otherwise there will be accumulation of inefficiency in them. It signifies a general rise in money incomes. A higher level of income due to trade enables the people of a country to make larger purchases of both domestically produced and imported Goods and reach a higher level of welfare.

2.7.1 Factors Affecting Gains from Trade

The size of gains from international trade depends upon several factors discussed below:

1. **Terms of Trade:** The terms of trade refer to the rate at which, the commodity of one country is exchanged with the commodity of the other country. The terms of trade have the most significant influence on the size of gain from trade of a country. More favourable the terms of trade, large may be the gains from trade. If a country has unfavourable terms of trade, it does not mean that the country derives no benefit from trade. It simply implies that the share of such a country out of the total gains from trade is relatively smaller. Closer the

terms of trade of a country to the domestic exchange ratio of two commodities lesser is the size of gain from trade for it and vice-versa.

- 2. Differences in Cost Ratio:** The difference in comparative cost ratios of producing two commodities in the two trading countries have much bearing upon the gain from international trade. If country A has comparative cost advantage in the production of cloth and B has cost advantage in the production of steel, they will specialise in these respective Goods and make gain from trade. If specialisation results in a relatively greater fall in the cost of cloth in country A than that in steel in country B, greater gain from trade will become available to A and vice-versa.
- 3. Reciprocal Demand:** The reciprocal demand refers to the elasticity of demand for the product of one country by the other country. If the demand for cloth (exportable of A) is less elastic in country B, the latter will offer more quantity of steel for one unit of cloth. It will cause the terms of trade to turn in favour of country A and this country will obtain a greater share from the total gain from trade. On the opposite, if the demand for steel in country A is less elastic or more intense, the term- of trade will move in favour of B and consequently greater gain from trade will become available to it. A country whose demand for the foreign products is more elastic but the demand for its products from the foreigners is less elastic, is likely to gain the most from international trade.
- 4. Level of Income:** The higher or lower level of money income of a country too determines the gain from trade for it. If the products of the home country command a strong and permanent demand, the expansion in its exports will raise the incomes from exports. The output in these industries will expand and the increased demand for labour will raise the money wages of workers. The employers in other industries will also raise wages to retain their more efficient workers. Thus, there will be an overall increase in money incomes. The import of relatively cheaper commodities, while domestic money incomes are high, signifies the gain from trade. On the opposite, the low domestic money income due to low exports or larger imports from abroad, while import prices are high, will reduce the level of welfare and result in smaller gain from trade.
- 5. Productive Efficiency:** If there is an improvement in the productive efficiency in the home country, the costs and product prices decline. As the foreigners can import commodities from this country at lower prices, the terms of trade go in favour of foreign country. The larger proportion of gain from trade too goes to the latter. An increased efficiency in a foreign country will enable the home country to import Goods at relatively lower prices.

This will cause an improvement in the terms of trade for the home country and larger share out of gain from trade will become available to the home country.

- 6. Factor Endowments and Technological Conditions:** If a country is capital-abundant and advanced from economic and technological viewpoints, it will have a large volume of foreign trade. Corresponding to the volume of its foreign trade, its share out of gain from international trade is also likely to be larger. On the contrary, a technically and economically backward labour-abundant country will have a small size of foreign trade. The gain from trade for such a country will also be relatively small.
- 7. Nature of Products Exported:** If a country predominantly exports the primary products, the term of trade for it will be unfavourable and the gain from trade for it will be smaller. On the opposite, if the exports of a country are largely of manufactured Goods, the terms of trade will be favourable for it. Such a country will obtain a relatively larger share out of the gains from trade.
- 8. Size of the Country:** A small country has a limited size of domestic market. Its productive resources too are limited and specific. The specialisation and exchange within the home country can bring very little benefits for it. As international trade commences, this country may completely specialise in the production of such commodities in which it enjoys comparative advantage over the other countries. The greater the difference between the international price and domestic price of its exported products, greater will be the share out of gain from trade for this country. A large country, on the opposite, possesses a large domestic market and diversified productive resources. If trade commences, it will have only incomplete specialisation. Since the small country can absorb very small quantity of the product available for export, it will have to dispose of a large part of its product in the home market. It may have substantial gain from specialisation and exchange within the home country but the gain from international trade will be very small.

In Fig. (i) for the large country A, the production possibility curve under the conditions of constant costs is AA_1 . In the absence of trade, consumption and production takes place at R where the community indifference curve I is tangent to the production possibility curve. After trade takes place, there is no change in terms of trade for country A so that the international price ratio line remains AA_1 . This country will however, modify its production pattern in such a way that some goods can be imported from country B. It may decide to move to P where it exports PS quantity of X commodity and imports SR quantity of Y. Since the terms of trade remain unchanged for country A, it fails to make any gain from trade.

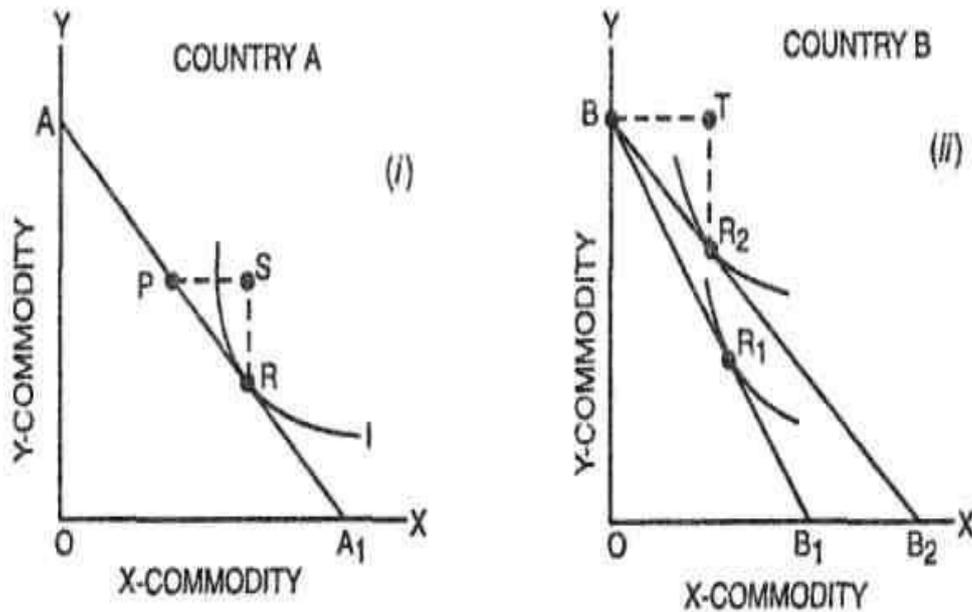


Figure 14

In Fig. (ii) for the small country B, the production possibility curve or domestic price ratio line under constant cost condition is BB_1 . Its tangency with the community indifference curve I_1 shows that production and consumption in this country, in the absence of trade, takes place at R_1 . As trade commences, this country specialises completely in the production of Y commodity. The international price ratio line is BB_2 , which is parallel to AA_1 . This country produces at B. The consumption equilibrium occurs at R_2 . So after trade it exports $TR_2 (= SR)$ of Y commodity to country A and imports $BT (= PS)$ quantity of X from country A. The movement from R_1 to R_2 in country B reflects the gain from specialisation and exchange to the small country B from the international trade. Since this country is able to import X-commodity at the lower international price, the terms of trade turn in favour of it. That also shows that the gains from trade go to small country B alone and large country goes without any gain from trade.

Check Your Progress-IV

Q1. Explain the factors affecting gains from international trade.

Ans: -----

Q2. How size of country will affect gains from international trade

Ans: -----

2.7.3 Static and Dynamic Gains from Trade

The gains from international trade are of two types: Static and dynamic gains.

Static Gains from Trade

- 1. Expansion in Production:** International trade based on the principle of comparative cost advantage, according to classical economists, assures the benefits of international specialisation and division of labour. All the available productive resources in the trading countries get optimally utilised resulting in the maximisation of production not only for the individual trading countries but also for the whole world.
- 2. Increase in Welfare:** International trade results in the increased production of consumable Goods in both home country and foreign country due to large world demand for products. Specialisation also leads to improvement in the quality of consumer products. As cheaper consumer products of superior varieties become easily available, there is definite rise in welfare of the people.
- 3. Rise in National Income:** International specialisation results in expansion of production in all the trading countries. More and more employment opportunities become available to the people. The expansion of production and employment leads to a rise in national income of the trading countries.
- 4. Vent for Surplus:** According to Adam Smith, international trade leads to the fullest utilisation of productive resources of the country. It becomes capable of creating a surplus of goods which can be easily disposed of in the foreign market. Thus, the vent for surplus also constitutes a gain from international trade.

Dynamic Gains from Trade:

The major dynamic gains from international trade are as follows:

- 1. Technological Development:** The international trade stimulates technical and scientific inventions and innovations as the producers in all the countries attempt to develop such techniques of production through which costs can be minimised and the speed of production can be accelerated. Trade facilitates the transfer of advanced technology from the developed to less developed countries. New ways of producing and organising production are spread to local economies through trade.
- 2. Increased Competition:** Trade stimulates competition, which makes the producers in all the countries to improve the quality of products and secure production at the least costs.

The international competition promotes efficiency of all the industries in the trading countries.

3. **Widening of Market:** International trade enlarges the size of market. Consequently, the producers are induced to expand the scale of production, volume of investment and employment. Consequently, the production frontiers in the trading countries can continuously be expanded.
4. **Increase in Investment:** As the demand for the home-produced Goods increases due to international trade, there is strong impetus to investment. The growth of export sector leads to the expansion of several allied ancillary industries creating more and more opportunities for investment. There is also substantial increase in foreign direct investments in the export sector of the economy.
5. **Efficient Use of Resources:** International trade paves the way for more efficient use of productive resources. The exploitation and use of the resources, previously considered economically non-viable, becomes economically viable due to increased demand in the foreign markets.
6. **Stimulus to Growth:** Production for exports and increased imports of Goods bring about a series of adjustments within the economic system that ultimately have stimulating effect upon the overall growth in the trading countries. Trade not only induces the growth of export industries, but also promotes the growth of infrastructure and services sector.

Check Your Progress- V

Q1. Write any three static gains from trade.

Ans:-----

Q2. How technological development will lead to dynamic gains?

Ans:-----

2.8 Summary

This unit discussed the comparative cost basis of trade between countries. No mention was made there in of factor endowments which affect comparative cost differences. The theory sought to explain how comparative cost differences made trade mutually advantageous to the trading partners but did not offer any hypothesis as to how the pre-trade cost ratios differ between countries. The modern theory, on the other hand, goes behind these pre-trade cost

ratios and seeks to predict the pattern to trade on the basis of the characteristics of pre-trade equilibria. Thus, modern theory (Heckscher-Ohlin) begins where the neo-classical (opportunity cost) theory of comparative advantage leaves off. There is little doubt that the movement of products from one country to another can at least reduce the factor price differentials. In the absence of trade, such differences are likely to be considerably large. The modern approach stresses that the introduction of international trade brings two types of gains, gains from exchange and gains from specialisation. These two gains together constitute the gains from international trade. When trade commences, consumers enjoy a higher level of satisfaction, partly because of improvement in terms of trade and partly on account of greater specialisation in the use of economic resources of the country.

2.9 Questions for Practice

A. Short Answer Type Questions

Q1. Write short notes on the following:

- a) Absolute Advantage
- b) Comparative Advantage
- c) Opportunity Cost

Q2. Explain the meaning of gains from trade.

Q3. What are the factors that determine the gains from trade?

Q4. Distinguish between static and dynamic gains from trade.

Q5. What implications does factor-intensity reversal has for H-O Theory and factor price equalisation theorem?

Q6. Explain factor price equalisation theory.

Q7. What are the obstacles to equalisation of factor prices?

B. Long Answer Type Questions

Q1. Explain relatively absolute and comparative advantage theory of international trade.

Q2. Define Heckscher-Ohlin theory in detail.

Q3. Explain Haberler's opportunity cost theory.

Q4. What is meant by gains from trade? In what way can terms of trade indicate the gains from trade?

Q5. Discuss the different approaches to the gains from trade.

Q6. Explain the meaning of gains of trade. What are die factors which determine the gains from trade?

- Q7. What is factor intensity reversal? What implications does it have for H-O theory and factor-price equalisation theorem?
- Q8. Explain clearly the Factor Price Equalisation theory.
- Q9. "International trade in commodities is a substitute for international movement of factors of production." Discuss.
- Q10. Explain the factor price-equalisation theorem. What are the obstacles to the equalisation of factor prices?

2.10 Suggested Readings

- Sodersten, B.: International Economics
- Salvatore, D.: International Economics
- Bhagwati, J.: Trade, Tariffs and Growth
- Ethier, W.J.: *Modern International Economics*

MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 3: COMMERCIAL POLICY

STRUCTURE

3.0 Learning Objectives

3.1 Introduction

3.2 Tariff Barriers and Types of Tariffs

3.3 Effects of Tariff (Partial Equilibrium Analysis)

3.4 Theory of Optimum Tariff

3.5 The Optimum Tariff Formula

3.6 Effective Rate of Protection

3.7 Non-Tariff Barriers

3.8 Trade, aid, and economic development

3.9 Summary

3.10 Questions for Practice

3.11 Suggested Readings

3.0 Learning Objectives

After reading this unit, learner will be able to:

- Know the meaning of tariff, types of tariff and effects of tariff
- Understand the meaning of optimum tariff
- Learn about the concept of the effective rate of protection
- Describe various types of non-tariff barriers

3.1 Introduction

A nation can adopt the policy of free trade as it leads towards efficient allocation of economic resources and promote a higher level of production and consumption for the nation. Free trade

is always called the first-best policy because it is mutually beneficial for trading partners. Classical and modern theory favours free trade policy as it maximizes the total output and consumption of participating nations. Whereas there are various arguments against free trade policy and ask for the policy of protectionism. The term protection refers to a policy whereby domestic industries are protected from the competition of foreign products. The domestic industries can be protected by imposing import duties that raise the price of foreign products in comparison to domestic products. Other ways to protectionism are import quota and other non-tariff barriers. Under the policy of protection, the government imposes several kinds of restrictions on foreign trade. Hence the policy related to trade protectionism is known as the commercial policy of a country.

There are two instruments of commercial policy:

- A. Tariffs:** Tariffs are the most common instruments of commercial policy/trade policy and a detailed discussion on tariffs will be presented in the next section. A tariff is a duty or tax imposed by the government of a country upon the traded commodity as it crosses national boundaries. Tariffs can be levied both upon the export and import. When it is imposed on exporting goods and services it is called export duties and when it is imposed on imported goods and services then it is called import duties. They aim to change the volume of imports or exports as per the objectives of commercial policy. A tariff raises the prices of imported goods by making foreign goods more expensive and unattractive for domestic consumers and encourages the production of imports substituting domestic goods. However, tariff distorts the comparative advantage pattern by discouraging efficient production in the home country. Tariff leads to a fall in the volume of international trade.
- B. Non-Tariff Barriers:** Non- tariff barriers are invisible trade barriers. The non-tariff barriers mainly include direct restrictions (Quotas), monetary restrictions, technical and administrative barriers, etc. Quantitative restrictions or quotas are imposed to reduce the quantity of imports or exports. Import quotas are more common than export quotas.

3.2 Tariff Barriers and Types of Tariffs

As explained earlier tariff is a duty levied on traded commodities either imported or exported. However, import tariffs are more common as a policy than export tariffs. It directly increases the price of imported products and gives protection to domestic products from foreign competition.

Tariff can be divided on the following basis:

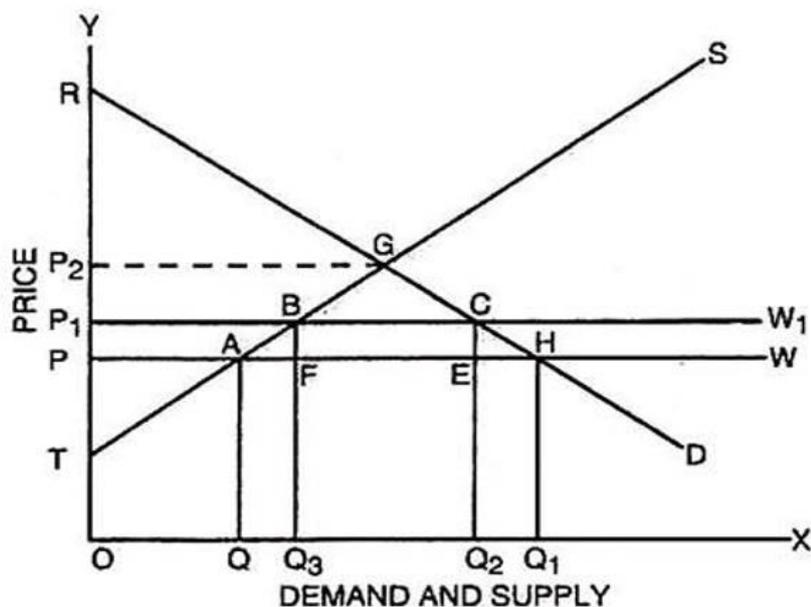
- 1. Based on the Criterion for Imposition:** Based on the criterion of imposition tariff can be divided into four types:
 - a) **Specific Tariff:** Specific tariff is the fixed or lump sum amount of money per physical unit or according to the weight or measurement of the commodity imported or exported. For example, tax imposed on wheat, rice and sugar will be according to their weight or measurement.
 - b) **Ad Valorem Tariff:** Ad Valorem is the Latin word which means 'on the value'. When the duty is levied as a fixed percentage of the value of the traded commodity, it is called an ad valorem tariff. For example: tariff on gold and jewellery. This tariff is generally imposed on the commodities consumed by the rich and they bear the greater burden of this tax and cheaper goods bought by the poor bear a lesser burden of such tariff.
 - c) **Compound Tariff:** Compound tariff is a combination of both the specific and ad valorem tariff. The structure of compound tariff includes a specific duty on each unit of the commodity plus a percentage of ad valorem duty.
 - d) **Sliding scale tariff:** The import duty which varies with the prices of the commodities is termed as sliding scale tariff. If the commodity is costlier there will be a high tariff and if the commodity is cheaper than the duty will be lower.
- 2. Classification Based on Purpose:** Based on this criterion of it divided into two types:
 - a) **Revenue Tariff:** The tariff which is primarily imposed for generating more revenue for the government is called the revenue tariff.
 - b) **Protective Tariff:** The tariff may be imposed by the government to protect the home industries from cutthroat competition from foreign-produced goods is called protective tariff.
- 3. Classification Based on Retaliation:** Based on this criterion of it divided into two types:
 - a) **Retaliatory tariffs:** If a foreign country has imposed a tariff upon the exports from the home country and the latter imposes a tariff against the products of the former, the tariff resorted to by the home country will be regarded as the retaliatory tariffs.
 - b) **Countervailing Tariffs:** If the foreign country has been exporting large quantities of its products in the market of the home country on the strength of export subsidies, the home country can neutralize the unfair advantage enjoyed by foreign products by imposing duties upon them as they enter the territory of the home country is called countervailing duties or tariff.

3.3 Effects of Tariff (Partial Equilibrium Analysis)

Under a commercial policy or trade policy tariff plays a vital role for the effective implication. But it depends on whether a country is small or large. If a small country imposes a tariff on the import of the product that competes with the product of the small domestic industry, the tariff can neither affect the international prices as the country is small nor can it affect the rest of the economy. In such a case, the partial equilibrium analysis that concerns the market for a particular product becomes the most appropriate.

In partial equilibrium analysis, the effect of tariff can easily be understood by following points with the help of diagram 1.

Figure 1-Partial Equilibrium Analysis of Tariff



- 1) **Protective or production effect:** In the above figure-1 demand and supply are measured along the horizontal and price along the vertical scale. D and S are the domestic demand and supply curves of the given commodity. Original PW is the world supply curve that is perfectly elastic supply curve and the pre-tariff price is OP and domestic supply is OQ and demand is OQ₁. If PP₁ unit tariff is imposed on import, the price rises to OP₁. At this higher price, the demand is reduced from OQ₁ to OQ₂ whereas domestic supply expands from OQ to OQ₃. Thus, the domestic production of import substitutes rises by the extent of OQ₃. It means the imports of this particular commodity declined from QQ₁ to Q₃Q₂. This is the protective, production, or import substitution effect.

- 2) **Consumption Effect:** The imposition of import duty on a particular commodity has the effect of reducing consumption and also the net satisfaction of the consumers. At the free trade price OP, the total consumption was OQ₁. After the imposition of the tariff, when the price rises to OP₁, the consumption is reduced from OQ₁ to OQ₂. Thus, there is the reduction of consumption by OQ₁ - OQ₂ = Q₁Q₂. There is a net loss in consumer surplus amounting to are PHCP₁.
- 3) **Revenue Effect:** The imposition of import duty provides revenues to the government. The revenue receipts due to tariffs signify a revenue effect. The original price OP does not include any tariff and no revenue receipts become available to the government. Subsequently, when PP₁ per unit tariff is imposed, the revenue receipts of the government can be determined by multiplying the per unit tariff with the quantity imported EF. Thus, the revenue effect due to tariff amount to BF × EF = BCEF. This is the revenue effect of tariffs.
- 4) **Redistribution Effect:** The imposition of the tariff, on the one hand, causes a reduction in consumer satisfaction and, on the other hand, provides a larger producer's surplus or economic rent to domestic producers and revenue to the government. Thus, tariff leads to a redistributive effect in the tariff imposing country. This effect can be shown by:
BAF + CEH
- The sum of these two triangles shows net loss to the society that is the loss is consumer surplus which is not compensated as some part of this consumer surplus loss is compensated by an increase in producer surplus and government revenue. Kindleberger calls this net loss as the 'deadweight loss' due to tariff. Hence tariffs lead to welfare loss to society.
- 5) **Terms of Trade Effect:** The classical theorists believed that tariff led to an improvement in the terms of trade of the tariff imposing country. According to modern theorists, these terms of Trade after imposition of a tariff depend upon the elasticities of demand and supply of product of two countries. If the foreign supply of goods is perfectly elastic, the imposition of tariff is not likely to improve terms of trade for tariff imposing countries and vice versa.
- 6) **Competitive Effect:** The imposition of tariff can facilitate the growth of an infant industry which otherwise is not in a position to face foreign competition. As tariff makes the foreign product relatively more costly, the domestic infant industry finds an opportunity to grow behind the protective shield. Thus, tariff increases the competitive power of the industries of tariff imposing country.
- 7) **Income Effect:** The imposition of tariff reduces the demand for foreign products. The amount of money not spent on imported goods may either be spent on the home-produced goods or

saved. If there is the existence of surplus productive capacity in the home country, a switch of expenditure from foreign to home-produced goods will lead to a rise in production, employment, and income. And if money is saved that results in greater accumulation of capital.

Check Your Progress- I

Q1. What is Compound tariff?

Ans-----

Q2. Define welfare effect of tariff?

Ans-----

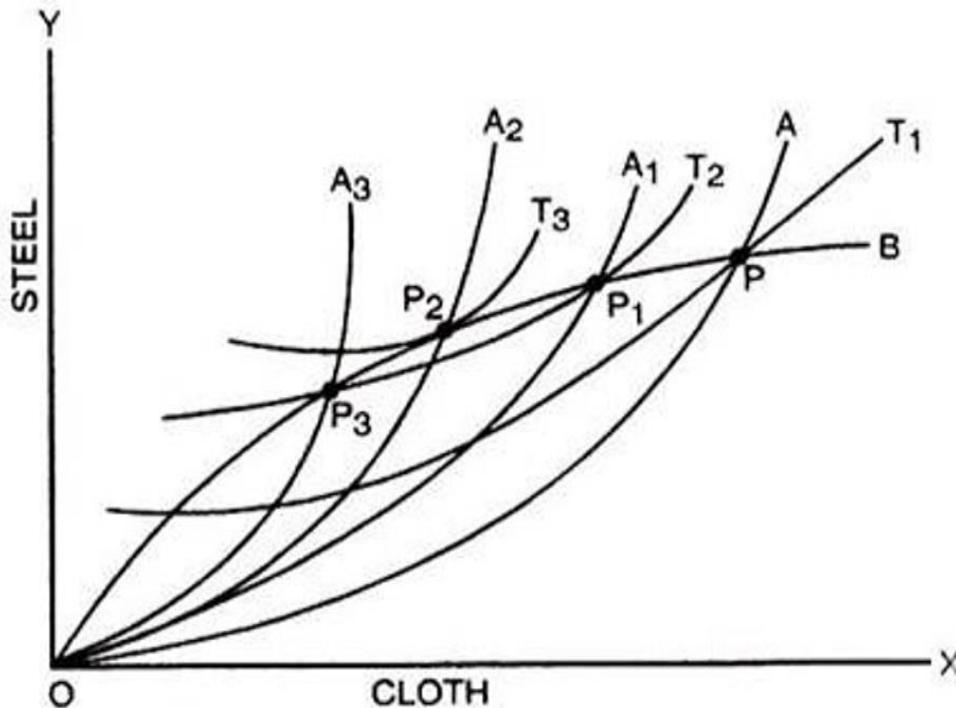
Q3. What do you mean by countervailing tariff?

Ans-----

3.4 The Theory of Optimum Tariff

In certain situations, the tariff may fail to improve the terms of trade of a given country. This leads to a vital question, to what extent a country can go on increasing tariffs, improve its terms of trade and maximize economic welfare. Tariffs result in a gain for the tariff imposing home country in the form of improvement in the terms of trade. At the same time, tariffs involve a cost in the form of a reduction in the volume of export and imports. So long as the gain from the tariff is more than the cost of it, the welfare of the tariff imposing country increases and it is worthwhile for it to raise the tariff. In case the cost of tariffs for the society is more than the gain from tariffs, there may be a reduction in the level of economic welfare and the worsening of the terms of trade. In such a situation, it is appropriate for the tariff imposing country to reduce tariff. The point of optimum tariff is reached when tariff does not further increase the net benefit to the given country and a level of economic welfare has become maximum. In the words of Sodersten, *“the tariff that maximizes a country’s welfare is called the optimum tariff”*. The point of optimum tariff is determined where the trade indifference curve of the tariff imposing home country becomes tangent to the offer curve of the foreign country. This can be shown with the help of the following diagram 2

Figure 2: Determination of Optimum Tariff



Originally OA is the offer curve of the home country A and OB is the offer curve of foreign country B. T_1 , T_2 , and T_3 are the trade indifference curve of country A. Before the imposition of the tariff, the exchange takes place at P. This point lies on the trade indifference curve T_1 . As tariff is imposed, the offer curve of country A shifts to OA_1 and exchange takes place at P_1 . This point occurs at the higher trade indifference curve T_2 . Thus, tariffs result in an improvement in terms of trade, on the one hand, and increase the level of welfare on the other. If there is a further increase in tariff, country A's offer curve shifts to OA_2 , and given the offer curve OB of country B, the exchange takes place at P_2 . This point occurs at the higher trade indifference curve T_3 . P_2 is the point of tangency between the trade indifference curve T_3 and foreign country B's offer curve OB. Compared with point P_1 , there is a further improvement in the terms of trade and an increase also in the level of welfare. In, country A raises the tariff still further, its offer curve shift to the left to OA_3 .

Given the offer curve of country B as OB exchange takes place now at P_3 . This point shows that terms of trade improve further but this point lies on a lower trade indifference curve T_2 . Although the terms of trade in this situation improve, yet there is a worsening in respect of the level of welfare. In such a situation, it is appropriate for the home country to reduce tariffs and

move back to point P_2 where the welfare is maximum. Thus, P_2 is the point of optimum tariff which corresponds with the maximization of welfare.

3.5 The Optimum Tariff Formula

The economist and financial administrator have remained concerned with determining the rate of tariff that can ensure the improvement in terms of trade consistency with the maximization of welfare. They have preferred to call such a rate of the tariff the optimum rate of tariff. Kindleberger has stated the formula for specifying tariff in the following form:

$$T_o = 1/E - 1$$

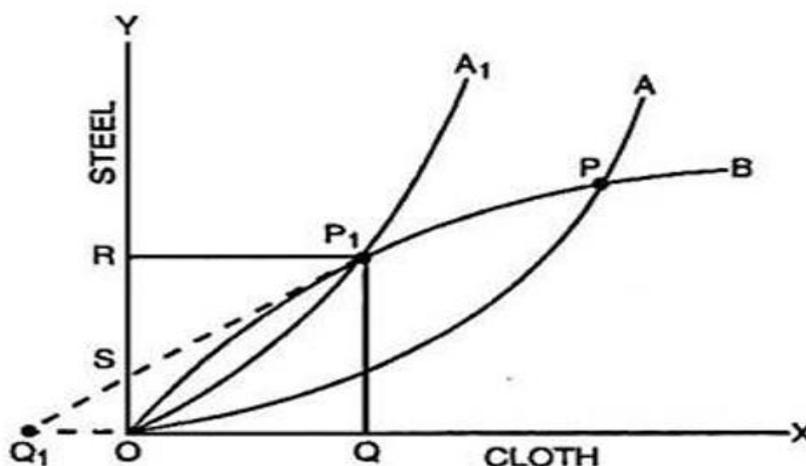
Here T_o denote the optimum rate of tariff and E stands for the elasticity of the offer curve of the foreign country at the specific point. The coefficient of E or the elasticity of the offer curve can be measured as below:

$$E = \frac{\text{- (Percentage change in imports)}}{\text{(Percentage change export) - (Percentage change in import)}}$$

The rate of optimum tariff can be derived geometrically with the help of diagram 3.

OA is the offer curve of tariff-imposing home country A and OB is the offer curve of the foreign country B. P is the original point of exchange and P_1 is the point of exchange after the imposition of tariff. It is assumed that P_1 is the point of optimum tariff.

Figure 3: Rate of Optimum Tariff



The slope of the offer curve at point P_1 is measured by the tangent drawn to OB at P_1 . It meets the horizontal scale produced in the backward direction at Q_1 . The optimum tariff at P_1 is

(OQ_1/OQ). As $OQ = RP$, therefore, the optimum tariff can be expressed as OQ_1/RP . Since the ΔOSQ_1O and SP_1R are similar, OQ_1/RP equal OS/SR .

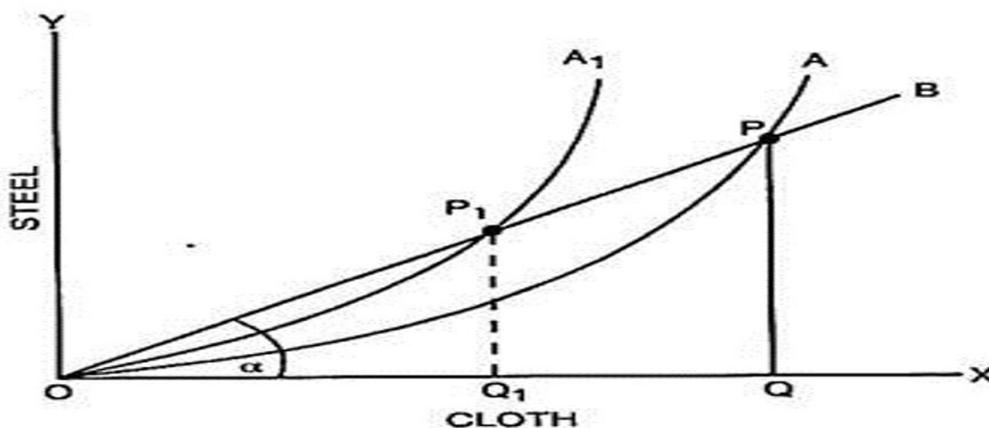
Relationship between E and T_0

Elasticity of offer curve (E)	Optimum tariff rate (T_0)
1	$T_0 = 1/1-1 = 1/1-1 = 1/0 = \text{infinity}$
2	$T_0 = 1/2-1 = 1/1 = 1$ (100%)
3	$T_0 = 1/3-1 = 1/2 = 0.5$ (50%)
4	$T_0 = 1/4-1 = 1/3 = 0.33$ (33%)
5	$T_0 = 1/5-1 = 1/4 = 0.25$ (25%)

If the elasticity of the offer curve is 1 it means that the Optimum rate of tariff will be infinity and if it is 2, that means optimum tariff is 100 %, it implies that prices will be two times after imposing tariff and so on we can calculate optimum tariff rate with the help of elasticity of offer curve. It follows that the optimum tariff rate that can maximize welfare goes on diminishing as the co-efficient E increases and vice-versa. It implies that there is an inverse relationship between the elasticity of the offer curve of country B and the optimum tariff rate for country A. In the extreme situation, when the elasticity of the offer curve of a foreign country is infinite the

Tariff-imposing home country will fail to bring about an improvement in its terms of trade. This can be shown through diagram 4.

Figure 4: Perfectly Elastic Offer Curve of Foreign Country



OA is originally the offer curve of country A and OB is perfectly elastic ($e = \alpha$) offer curve of country B. The exchange takes place at P and country A imports PQ quantity of steel in exchange for the export of OQ quantity of cloth. The terms of trade at P for country A = $(QM/QX) = (PQ/OQ) = \text{Slope of Line OP} = \text{Tan } \alpha$. As country A imposes a tariff, its offer curve shifts to OA1. In this case, the exchange takes place at P₁ where P₁Q₁ quantity of steel is imported against the export of OQ₁ quantity of cloth. The TOT for country A at P₁ = $(QM/QX) = (PQ_1/OQ_1) = \text{Slope of Line OP}_1 = \text{Tan } \alpha_1$. The slope of Line OP₁ = $\text{Tan } \alpha$. Since TOT at P and P₁ are both measured by constant $\text{Tan } \alpha$, the home country cannot improve the terms of trade through tariff. There is only a reduction in the volume of trade and a consequent decline in the level of welfare.

3.6 Effective Rate of Protection

Until the early 1960's, the official rate of the tariff was intended to discourage the import of final products and to promote domestic production in the protected industry. The rate of tariff ad valorem on the import of final product was called the nominal rate of tariff. A ten percent tariff on a finished imported good was supposed to have a ten percent protection to the domestically produced import substitute. Higher the rate of nominal tariff, it was assured, higher would be the degree of protection and vice-versa. In other words, the nominal rate of the tariff was used to be regarded as a measure of the degree of protection. But the writers like B. Balassa, W. Corden, and H.G. Johnson suggest that the nominal rate of the tariff was not the appropriate measure of the degree of protection. According to them, the concept of the nominal rate of the tariff had a serious flaw in that it considered only the effect of the tariff on the final imported product. It did not recognize the structure of duties applied to the imported raw materials and intermediate goods required in the processing of the import substitutes. A country, many often, imports a raw material either duty-free or imposes a very low tariff rate on the imports of inputs than on the import of final commodity. Such a policy is adopted for encouraging domestic production and expansion of employment. For instance, a country may import cotton duty-free but impose a stiff rate of tariff on the import of cloth. Such a structure of import tariff brings about a relatively larger increase in the domestic value-added. The domestic value-added equals the price of the final commodity minus the cost of the imported inputs going into the production of the commodity. When no or lower tariffs are applied on imported inputs than on the final imported product, the rate of protection, called the effective rate of protection, exceeds the nominal tariff rate. So, under the usual assumptions of international immobility of labour and capital, the effective rate of duty will indicate the degree

of protection of the value-added in the manufacturing process. The nominal tariff rate can be expressed through the following formula:

$$H = (P' - P) / P$$

Where H is the nominal tariff rate. P is the world price in the absence of tariff and P' is the domestic price of the final commodity including the tariff. The effective rate of protection, on the other hand, is measured by the following expression:

$$G = V' - V / V$$

Where G is the effective rate of protection. V is the domestic value-added under free trade and V' is the value-added after duty is imposed. Hence the effective rate of protection is real measure of protection then nominal rate of protection.

Check Your Progress- II

Q1. Define optimum rate of tariff.

Ans-----

Q2. How optimum tariff depend on elasticity of demand by foreign country.

Ans-----

Q3. How effective rate of protection is different from nominal rate of tariff?

Ans-----

3.7 Non-Tariff Barriers

Under commercial policy or trade policy apart from tariff a country also can protect the home country's import substitution industry and can resolve the problem of balance of payment deficit by fixing import quota and other non-tariff barriers. Import quota means to fix the quantity of imports.

1. **Import Quotas:** The import quota means the physical limitation of the quantities of different products to be imported from foreign countries within a specified period, usually one year. The import quota may be fixed either in terms of quantity or the value of the product. For instance, the government may specify that 60,000 colour T.V. sets may be

imported from Japan. Alternatively, it may specify that T.V. sets the value of Rs. 50 crores can be imported from that country during a given year.

Types of Quotas:

There are different kinds of import quotas a country can fix which are as follows:

- a) **Tariff or Custom Quota:** In the case of tariff or custom quota, a certain specified quantity of a commodity is allowed to be imported by the government of the importing country either duty-free or at a low rate of import duty. The imports over this specified quantity are subject to a relatively higher rate of tariff.
 - b) **Unilateral Quota:** Under the system of unilateral quota, a country places an absolute limit upon the quantity of a commodity to be imported during a specified period. This limit is fixed without any prior negotiation or agreement with the foreign countries. The unilateral quota can be broadly of two types - (a) global quota and (b) allocated quota. In the case of global quota, the entire quantity to be imported may be obtained from anyone or more countries during the specified period. Under the allocated quota system, the total quantity of import quota is allocated or distributed among the different exporting countries based on certain criteria.
 - c) **Bilateral Quota:** In the case of the bilateral quota system, the import quota is fixed after negotiations between the importing and exporting countries. Haberler has called the bilateral quotas as agreed quotas.
 - d) **Mixing Quota:** Under this system, which is also known as indirect quota, the domestic producers in the quota-fixing country are required to make use of domestic raw materials along with the imported raw material in a specified proportion.
2. **Voluntary Export Restraints:** When an exporting country is voluntarily ready to restrict its exports to foreign countries due to threats from importing countries to put more stiff trade restrictions like tariffs and other barriers.
 3. **Technical, Administrative and Other Regulation:** Numerous barriers are there like custom restrictions on bringing certain products either on the ground that they constitute a health hazard or they do not meet the safety and health regulation in the country. In addition to this, there are regulations concerning labelling, packaging, custom formalities and endless columns to be filled in several forms by the one who is importing goods. All these are hidden trade barriers.
 4. **Export Subsidies:** An important instrument to influence international trade is export subsidies. The export subsidies are direct cash payments or the grant of tax relief to

nations' exporters. However international agreements do not allow export subsidies however still many nations resort to this measure to promote their exports.

- 5. Dumping:** Dumping is an unfair method of promoting export through selling products at low prices in international markets compared to a higher domestic price for the same products. This is also called international price discrimination. Many countries resort to anti-dumping measures to reduce the impact of dumping on their domestic production.

All these measures besides many others constitute the so-called hidden non-tariff obstacles to international trade. These are man-made barriers and presently almost half of the world trade is subject to non-tariff barriers.

Check Your Progress- III

Q1. How non-tariff barriers different from tariff barriers?

Ans-----

Q2. Define Quota.

Ans-----

Q3. What are Anti-Dumping Measures?

Ans-----

Trade, aid, and economic development

Trade, aid, and economic development are interconnected in complex ways. Here's a breakdown of their relationship:

Trade and Economic Development:

- **Export-led Growth:** Countries can stimulate economic growth by increasing exports. This leads to increased production, job creation, and technological advancement.
- **Market Access:** Trade agreements can provide developing countries with access to larger markets, allowing them to sell their goods and services to a wider range of consumers.

- **Competition and Efficiency:** Exposure to international competition can force domestic industries to become more efficient and innovative, leading to higher productivity and lower prices for consumers.
- **Technology Transfer:** Trade can facilitate the transfer of technology and knowledge between countries, helping developing countries to adopt new technologies and improve their production processes.

Aid and Economic Development:

- **Infrastructure Development:** Aid can be used to finance essential infrastructure projects like roads, bridges, and ports, which are crucial for economic development.
- **Social Development:** Aid can be used to fund education, healthcare, and other social programs, which can improve human capital and reduce poverty.
- **Debt Relief:** Aid can be used to provide debt relief to heavily indebted countries, freeing up resources for investment in development.
- **Conditionality:** Aid can be tied to specific policy reforms, such as trade liberalization or privatization, which can promote economic development in the long run.

Interplay of Trade, Aid, and Economic Development:

- **Aid for Trade:** Aid can be used to support trade-related activities, such as building export capacity, improving customs procedures, and reducing trade barriers.
- **Trade-led Aid:** Aid can be used to encourage trade liberalization and integration into the global economy.
- **Synergies:** Trade and aid can complement each other. For example, aid can be used to develop the infrastructure needed to support trade, while trade can generate the resources needed to repay aid.

Challenges and Considerations:

- **Dependency:** Overreliance on aid can lead to dependency and discourage self-sufficiency.
- **Conditionality:** Aid conditionality can be controversial and may not always be effective in promoting development.
- **Trade Imbalances:** Unequal trade relationships can lead to imbalances and exploitation of developing countries.
- **Corruption:** Corruption can undermine the effectiveness of both trade and aid.

Thus, trade, aid, and economic development are intricately linked. While trade and aid can be powerful tools for promoting economic development, they must be used wisely and strategically to maximize their benefits and minimize their risks.

4.8 Summary

In brief, we can say that tariff is a vital concept of international trade and plays important role in improving terms of trade, and even we can improve our balance of payment deficit through commercial policy or trade policy. Government adopts such trade policy that is beneficial for improving our balance of payment; it can be done through adopting the appropriate rate of Tariff. The concept of an optimum rate of tariff is also very important as it increases the welfare of the countries that are engaged in the trading process. We have seen the effect of tariffs from a microeconomic perspective. Further there are various types of non-tariff barriers exist through which countries can restrict their trade and protect domestic market from foreign competition.

3.9 Questions for Practice

A. Short Answer Type Questions

- Q1. Define tariff?
- Q2. Types of tariffs based on the criterion of imposition?
- Q3. What is the formula of the optimum tariff?
- Q4. Explain various types of Non-Tariff Barriers.
- Q5. What is the meaning of an effective rate of protection?
- Q6. What do you mean by foreign retaliation?
- Q7. What is a countervailing tariff?
- Q8. Define Quota.
- Q9. What is Dumping?

B. Long Answer Type Questions

- Q1. What is the meaning of tariff? What is the effect of tariff in the context of commercial policy in a small country as well as in a large country?
- Q2. What do you understand by the optimum rate of tariff and how it is determined?
- Q3. Discuss the importance of tariffs and also define an effective rate of protection?

3.10 Suggested Readings

- Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory And Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.

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MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 4: THEORY OF ECONOMIC INTEGRATION AMONG NATIONS

STRUCTURE

4.0 Learning Objectives

4.1 Introduction

4.2 Meaning and Types of Economic Integration

4.3 Partial Equilibrium Analysis of Custom Union

4.4 General Equilibrium Analysis of Custom Union

4.5 Factor affecting Success of a Custom Union

4.6 Some Famous Examples of Custom Union

4.7 Summary

4.8 Questions for Practice

4.9 Suggested Readings

4.0 Learning Objectives

After reading the unit, learner will be able to:

- Understand the meaning and types of economic integration
- Know about trade creation and trade diversion
- Explain theory of custom union
- Describe static and dynamic effects of custom union
- Evaluate the factors affecting the success of custom union

4.1 Introduction

When a group of two countries or more countries form an association or a union and the member countries agree to eliminate the tariff on imports from each other but not on imports

coming from the rest of the world. Hence a custom union reintroduces free trade among member nations but imposes a common external tariff against non-member countries of the world. According to R.G. Lipsey, "*Customs Union is that branch of tariff theory that deals with the effects of geographically discriminatory changes in trade barriers.*" The theory of custom union is not concerned with Pareto optimal conditions it represents suboptimal trade situations hence it is a case of the theory of the second-best. Pareto optimality can be achieved only in the case of free trade. A tariff creates conditions of Pareto non-optimality and therefore they result in welfare loss. The custom Union is a halfway house between the policy of free trade at one extreme and the policy of tariff protection at the other extreme. In this sense, custom union is a theory of second best. Custom Union Theory is pioneered by Jacob Viner (1950), J.E.Meade (1955), R.G. Lipsey (1957), Harry Johnson (1962), Jaroslav Vanek (1965), Cooper and Massell (1965), Murry Kemp (1969) and many others.

5.2 Meaning and Types of Economic Integration

A custom union is a form of economic integration which has become part of the vocabulary of Economics in the mid-1950s. In the words of Salvatore, "*Economic integration is the commercial policy of discriminatively reducing or eliminating trade barriers only among the nations joining together.*" Further, Carbaugh defined that, "*Economic integration is a process of eliminating restrictions on international trade, payments, and factor mobility. Economic integration thus results into the unitary of two or more national economies in a regional arrangement.*" The purpose of a custom union is to give special or preferential treatment to imports from partner countries/ member countries and discriminatory treatment to non-member countries. In the words of H.G.Mannur, a custom union reintroduces free trade among the member nations but introduces a common external tariff against the non-member countries of the world. Besides customs union, there are other types of economic integration and there are different degrees of economic integration. Based on degree of integration the type of preferential agreements are given as below:

- 1) Preferential trade Union or Area:** It is the loosest form of the trade agreement between two or more countries. The member countries reduce tariffs and give concessions to import from the member country. However, they maintain their individual tariff policy against the outside world.
- 2) Free Trade Union:** When two or more countries come in the trade agreement that they abolish all tariff duties on their mutual trade in all goods and services but retain their

individual tariffs against non-member countries or the rest of the world. Example: South Asian Free Trade Agreement (SAFTA).

- 3) **Custom Union:** It is a more formal form of economic integration. Under custom union member countries abolish all tariffs and non-tariff barriers on trade among themselves. However, for rest of the world, they adopt a common external tariff policy. Example BENELUX (Belgium, Netherland and Luxemburg).
- 4) **Common Market:** A common market is formed in which all trade barriers are removed between member countries, a common trade policy is adopted for non-members means countries form a custom union and in addition allows free movement of all factors of production among themselves. Example: European common Market in 1992.
- 5) **Economic Union:** It is the highest and most comprehensive form of economic integration as it includes all features of the common market and in addition unification of monetary, fiscal, exchange rate, industrial, and taxation policies of member countries. The economic union also harmonizes economic institutions like the establishment of a common currency system and banking system. Example: European Union.

It is clear from the above discussion that economic integration starts with a lower-level integration in form of the preferential trade agreement and goes to its highest form of economic union.

Check Your Progress-I

Q1. What do you mean by economic integration?

Ans: -----

Q2. Which are the lowest and highest forms of economic integration?

Ans: -----

4.3 Partial Equilibrium Analysis of Custom Union

Jacob Viner is the pioneer in the theory of custom union before the publication of his book, *The Custom Union Issues* it was commonly believed that the formation of custom union leads

to a higher welfare level. Jacob Viner showed that the formation of the custom union can have both positive and negative effects on the welfare of the member countries. He explained the welfare effects of custom union through two key concepts- Trade creation and Trade diversion. Let us first explain the concepts of trade creation and trade diversion.

Table-1 Trade Creation

Country	Production Cost (Rs per Unit)	X imposes 100% Uniform duty (Rs per unit)	X removes duty on imports from Y but not from Z (Rs per unit)
X Home Country	100	100	100
Y Partner Country	80	160	80
Z Rest of the World	60	120	120

The table-1 gives an example of three countries, X is the home country, Y is custom union partner country and Z is a non-member of the custom union country or the rest of the world. The first column shows the production cost per unit of a particular commodity Smartphone where the cost of producing one unit is highest in the home country and Z is the most efficient country because it produces one unit Smartphone with 60 Rs. Now home country X imposes a 100 percent tariff rate on both nations. X will not trade with any country as the cost of producing product domestically is lower than both Y and Z after imposition of tariff, hence no trade takes place and X produce good domestically only. Now X forms a customs union with Y country and removes tariff from the products of Y country but maintained the same tariff on Z country. Now the cost of importing one unit from Y country is less than producing the good domestically. Now trade takes place and this is called the trade creation effect according to Jacob Viner.

Table-2 is an example of trade diversion, the cost of production is the same as in table-1, and the only difference is that that now country X is imposing a 50 percent tariff rate on Y and Z countries. After the imposition of the tariff, the cost of importing from the rest of world Z is the least hence X import Smartphone from nation Z before the formation of custom union. Now suppose X country form a custom union with nation Y and eliminate all tariffs from imports from Y country but maintain 50 percent tariff on country Z.

Table-2 Trade Diversion

Country	Production Cost (Rs per Unit)	X imposes 50% Uniform duty (Rs per unit)	X removes duty on imports from Y but not from Z (Rs per unit)
X Home Country	100	100	100
Y Partner Country	80	120	80
Z Rest of the World	60	90	90

Now cost of importing goods from Y is less as compared to Z rest of the world and X start importing from Y. Hence X diverted its trade from the most efficient producer Z nation to a high-cost country Y. This diversion of trade from low-cost country to high-cost country is called the trade diversion effect according to Jacob Viner. Here the formation of custom union creates welfare loss. The two effects will decide that custom union is increasing or decreasing the welfare of a nation.

1. Static Effects of Custom Union

Economic integration implies discrimination between member and non-member countries. Hence it is appropriate to see it through benefits percolated to individual member countries. Before the publication of the book "Custom Union Issues" in 1950 by Jacob Viner, it is generally argued that the formation of custom union will lead to an increase in economic welfare as some trade is better than no trade as we already discussed. But Jacob Viner showed that it is not always necessary that formation of custom union always improved welfare it can also worsen it depending upon the power of trade creation and trade diversion effects. Let us see the partial equilibrium effect of the formation of custom union through the following figure:

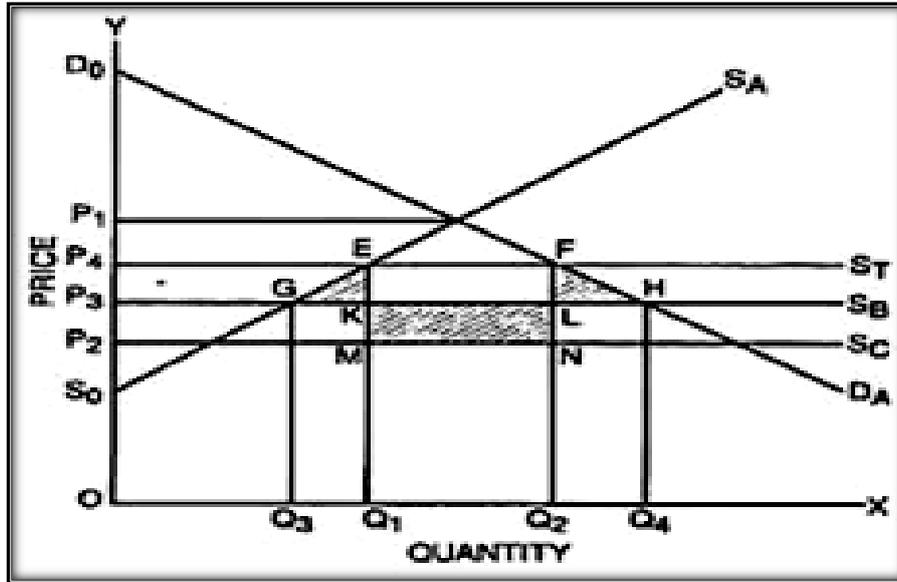


Figure 1: Trade Creation and Trade Diversion Effects

Pre- Custom Union Equilibrium

In figure 1 S_C line shows the perfectly elastic supply of C nation at P_2 price which is lowest, S_B is supply curve of B nation at P_3 price and domestic price of home country A is P_1 . P_4 is the price of the product of C nation after imposition of tariff which is equal to P_2 plus $P_2 P_1$ tariff duty imposed by home country on products of C country. Before the formation of custom union A trade with C at P_4 price because after imposition of tariff on B the price of the product of B nation P_3 plus tariff duty is higher than domestic price P_1 . Here C is the most efficient producer and A trades with C before the formation of custom union at P_4 tariff-ridden price. At P_4 price country produce OQ_1 quantity domestically and Import Q_1Q_2 quantity from C nation. Consumer surplus is D_0FP_4 , Government revenue is $EFNM$, Producer surplus is S_0EP_4 . This is the situation of country A after imposition of the tariff as compared to free trade position at P_2 .

Post-Custom Union Equilibrium

After the formation of the custom union, Country A forms a custom union with country B and maintains its commercial policy with C as earlier. Now after the elimination of tariff, B nation can supply at P_3 price to A nation and A will start importing the particular product from B nation instead of C. Now C nation is eliminated from trade scene as its tariff-ridden price P_4 is higher than duty-free price P_3 of member nation B. After the formation of the custom union of A and B following are the effects.

- a) **Price Effect:** A nation is buying the product at a lower price P_3 as compared to pre-custom union price P_4 .
- b) **Consumption Effect:** Country A's consumption increase from OQ_2 to OQ_4 . The increased consumption in the country A is supplemented with increased imports by $Q_3Q_1+Q_2Q_4$ which are equal to $Q_3Q_4-Q_1Q_2$. In this Q_2 Q_4 imports are increase as a result of increase in consumption at lower price for consumers hence it is called the trade creation effect due to consumption effect.
- c) **Production Effect:** The home country's domestic production is decreased from OQ_1 to OQ_3 . This will increase imports quantity Q_3Q_1 equal to a decrease in domestic production GK amount. This is the trade creation effect due to the formation of the custom union.
- d) **Welfare Effect:** There are both welfare increasing and decreasing effects. Welfare increasing effects are in terms of production and consumption effects or trade creation effects. Due to the production effect, there is an increase in imports and which will lead to a rise in consumer surplus equal to shaded triangle GEK . This is an addition to consumer surplus due to the trade creation effect of production effect. Further consumption of domestic country increases which also leads to increase in imports by Q_2Q_4 , this is also trade creation effect due to increase in consumption. It also leads to a rise in consumer surplus equal to shaded triangle FLH . The total increasing welfare effect is equal to the sum of two triangles GEK and FLH which is the rise in consumer surplus as a result of trade creation generated by the production and consumption effect.

Further, there is also a welfare reduction effect after the formation of custom union due to the trade diversion effect. Before the formation of custom union, A nation imports goods from the most efficient nation C who has the least cost of production. However, after the formation of the custom union, A diverted its trade from most efficient partner C to less efficient partner B. A was importing Q_1Q_2 from C nation but after the formation of custom union A import this amount of product from B instead of C. Here we only consider quantity Q_1Q_2 of imports which are diverted from C to B nation. For this Q_1Q_2 quantity, EFQ_1Q_2 is the total amount which consumers of nation A paid-for product of C, out of which $EFNM$ went to the country's government in terms of tariff revenue, Only MNQ_1Q_2 is paid to exporters from country C. $EFNM$ is not considered as the part of the cost of buying Q_1Q_2 quantity as it is transferred within the country only, from consumers to the government. The actual cost of buying Q_1Q_2 quantity from C nation is MNQ_1Q_2 amount. Whereas after the formation of the custom union,

for the same quantity of imports country A's consumers pay KLQ_1Q_2 to the exporters of country B which is more than the payment MNQ_1Q_2 paid to country C. The increased external payments are equal to shaded rectangle KLMN. This is welfare loss due to the trade diversion effect. Hence welfare loss due to trade diversion is equal to shaded triangle KLMN.

The net welfare effect is difference between the welfare increasing trade creation effect and the welfare reducing trade diversion effect. In diagram-1 the difference between the sum of two triangles (GEK plus FLH) and rectangle KLMN show the net welfare effect for nation A. If $GEK+FLH$ is greater than KLMN, there is a net increase in the welfare of country A, If $GEK+FLH$ is less than KLMN, there is a net decrease in the welfare of country A and If $GEK+FLH$ is equal to KLMN, there is no change in the welfare of country A. Hence welfare effects of custom union depend upon the comparative strength of trade creation and trade diversion effects. So, it is clear that the formation of custom union does not always increase the welfare of the nation.

2. Dynamic Effects of Custom Union

- a) **Economies of Scale:** As the size of the market increase the firms of countries start enjoying economies of scale. The formation of the custom union gives an economy opportunity to increase the scale of production after the extension of the market and large markets allow firms to realize economies of scale. Hence due to expansion of the market, increased competition and specialization create external and internal economies to scale.
- b) **Enlarged Competition:** This is the most significant dynamic effect of custom union is enlarged competition. After the formation of custom union firms are exposed to the competition of rival firms in member countries. Now it is compulsory for firms to become cost-efficient if they want to survive in the enlarged market of the custom union.
- c) **Expanded Domestic and Foreign Investment:** Large markets and competition give stimulus to new investment. First domestic investment expands as demand for new equipment and plants arise. Foreign investment also increases in the custom union because the non-member countries want to evade tariff duties by setting their plants and factories in the custom union territory. Hence the formation of custom union leads to the expansion of domestic and foreign investment.
- d) **Employment and Economic Welfare:** The formation of a common market allows free movement of factors of productions as labour, capital and enterprise are freely mobile within the territories of member countries. This result in improved employment scenario

and optimal utilization of resources and ultimately higher economic welfare for member countries.

- e) **Economic Growth:** High competition and large size of the market, factor mobility leads to efficient utilization of resources, specialization, and economies of scale. There is technological advancement also and all these factors improve the economic growth scenario of member countries. All member nations will be able to achieve a higher level of economic growth.
- f) **Technical Advancement:** After the formation of the custom union, market expansion, competition enlarged, and zeal to achieve high factor productivity make the firms innovate, learn and adopt more advanced technology, managerial and scientific skills. There is a strong stimulus to adopt the new methods of production to improve the qualities of products.

4.4 General Equilibrium Analysis of Custom Union

Jacob Viner's partial equilibrium analysis gives us a basic understanding of the effects of custom union, for a more advanced understanding of custom union effects general equilibrium analysis is more useful. The most appropriate models for this understanding are Lipsey model.

The Lipsey Model

Jacob Viner asserted that trade diversion leads to welfare reductions, however, J.E. Meade and R.G. Lipsey have argued that Viner's conclusion is valid only if we assume the goods are consumed in the same fixed proportion regardless of the change in the structure of prices and substitution effect is absent. On the supply side, Lipsey assumes that supply is perfectly elastic, and there are constant returns to scale apply to production. There are two goods X and Y There are three countries, A is home country, B is custom union partner country and C is rest of the world. The following diagram shows the general equilibrium analysis when goods are consumed in a fixed proportion. The figure 2 country A produces at D point which shows complete specialization in commodity X and exchanges this commodity with commodity Y at AC terms of trade and these are the best available term of trade to nation A. OR line shows that goods are consumed in a fixed proportion. A produces at D and consumes at G point. Now A forms a custom union with B nation at DF terms of trade line available to nation A in a custom union. Now on DF terms of trade line A consumes at H point. H point is inferior to point G point in Figure 2.

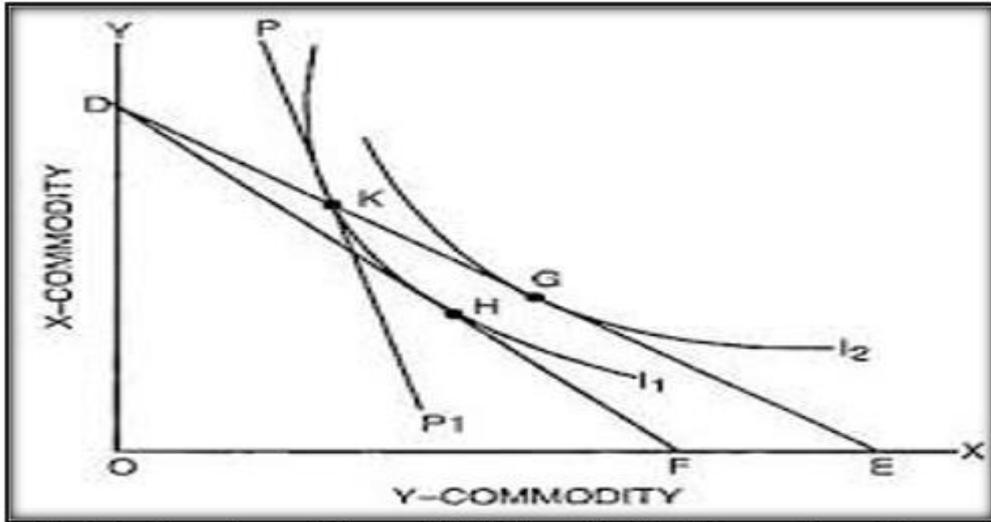


Figure: 2 Trade Diversion and Economic Welfare with Fixed Proportion of Consumption

So as trade is diverted from efficient nation C to less efficient nation B the economic welfare is the decline in terms of low consumption level. So here Vinor argument is true if consumption is taking place in fixed proportion then trade diversion leads to welfare loss for the home country. But Vinor argument ignored the fact that in reality the goods are not consumed in fixed proportion as price changes the substitution effect take place . If we drop the assumption of fixed proportion consumption, then trade diversion leads to a loss in the welfare of the nation which is shown by diagram 3.

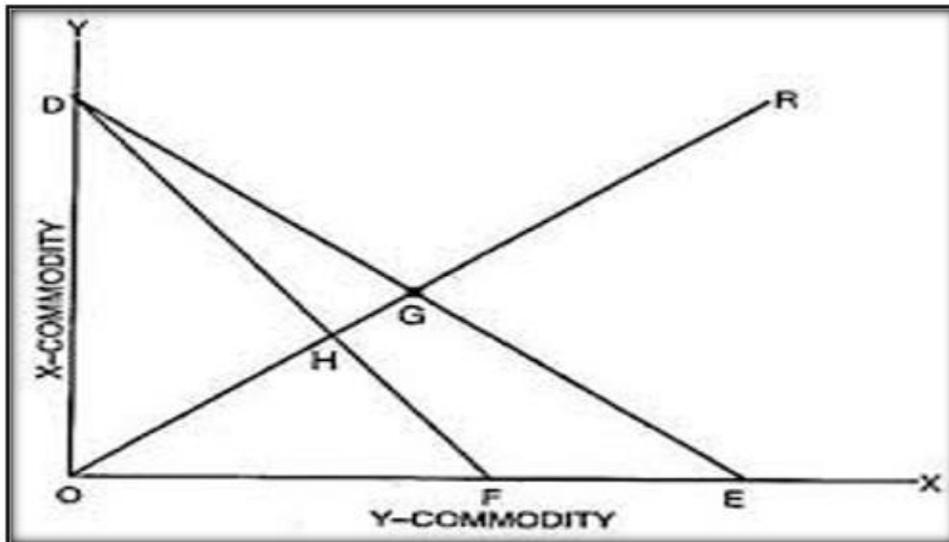


Figure 3: Trade Diversion and Economic Welfare when Consumption is not in fixed proportion

In the diagram, G point shows the consumption point of A nation in pre-custom union formation time. A nation produces at D and consumes at G point at DE terms of trade while importing Y commodity from C nation and this is free trade condition. The equilibrium

condition is shown by tangency of terms of trade line DE and community indifference curve I_2 at G point. However, when country A imposes a tariff on Y commodity the terms of trade line become PP_1 line and the consumption point of A shifts from G to K. K consumption point is on a lower indifference curve I_1 . Imposition of tariff leads to a welfare loss as compared to free trade situation. The consumers in A start consuming more of X due to high tariff-ridden prices of Y commodity. Now A nation forms custom union with B nation. Here new terms of trade line are DF, after the formation of custom union A start importing Y commodity from B nation at DF terms of trade line. The consumers in A nation now start demanding more of Y commodity hence the consumption point shift from K to H which on same indifference curve I_1 . It is clear that after the formation of custom union trade diversion takes place but no welfare loss occurs to A nation as it is in equilibrium at the same indifference curve I_1 before and after the formation of custom union. Hence it can be concluded that trade diversion in the custom union does not always lead to welfare loss, it depends on cost and price structures in the economy.

Check Your Progress-II

Q1. How Trade Creation is different from Trade Diversion?

Ans: -----

Q2. How Dynamic gains from custom union are created?

Ans: -----

4.5 Factor affecting Success of a Custom Union

There are some factors which decides the success of custom union are explained as follows:

- 1) **Type of Economy:** If The custom union member countries are similar or competitive there gain from union formation more than countries that are dissimilar or complementary. Because among similar nations there is more competition to survive, innovate and produce and it increases the efficiency of nations.
- 2) **Distance or Proximity Between Member Countries:** The member countries gain more from economic integration if they are lying in the same region and proximity. Because high distance creates high transportation costs and reduces gains from mutual trade.

- 3) **Size of Custom Union:** The greater number of member countries creates more gain from trade among member countries. Because more countries create more options for trade in various commodities at low cost and situation goes near to free trade condition. Hence as the number of member countries increases, there is more increase in gain from international trade.
- 4) **Tariff Barriers:** If before the formation of custom union tariff barriers are high on mutual trade between member countries then countries benefit more after the formation of custom union.
- 5) **Quantum of Trade** The size of trade between member countries determines their gains from trade. If the extent of trade is high and a large number of goods and services are exchanged between nations then there will be more benefits from international trade.
- 6) **Political Stability in Member Countries:** These are some non-economic factors like social and economic stability in member countries is a requirement. For example, SAFTA's success is affected by political situations in some south Asian nations.

4.6 Some Famous Examples of Custom Union

- 1) **EUROPEAN UNION :** European Union is the most successful example of economic integration in the world. It is started as European Economic Community (EEC) formed on January 1, 1958, through the treaty of Rome signed in March 1957. Then it is renamed as European Union through Maastricht Treaty which is implemented on November 1, 1993. Presently there are 27 European countries are its member, It has a single currency Euro and a common monetary union. Its founder member the United Kingdom or Britain formally exit European Union on 31st January 2020.
- 2) **SAFTA:** South Asian Association on Regional Cooperation (SAARC) is a regional forum or union in South Asia to promote harmony and growth in the region. A major achievement of this association is an agreement to create South Asian Free Trade Agreement which come in effect on January 1, 2006. This agreement confirms that all barriers to trade between member countries will be removed by the year 2016. Under SAFTA member countries will give " Most Favoured Nation" status to each other. Its member nations are all SAARC member nations, India Pakistan, Bangladesh, Bhutan, Maldives, Nepal, Afghanistan and Sri Lanka. How the success of this agreement is disrupted due to the volatalile relationship between India and Pakistan.

- 3) **NAFTA:** The governments of Canada, Mexico, and the United States of America signed a free trade agreement in August 1992 which is called North American Free Trade Agreement. NAFTA has achieved substantial trade liberalization but now this agreement is replaced with a new agreement called United States-Mexico-Canada Agreement (USMCA) and all three countries ratified it in March 2020. USMCA comes into effect from July 1, 2020, replacing NAFTA.

4.7 Summary

The major objective of the custom union is to give special treatment to imports from member countries and biased or discriminatory treatment to imports from the rest of the world. There are various levels of economic integration and the degree of economic integration increases with each succeeding stage like Preferential trade agreement (PTA) is the lowest level of economic integration, next to it in the sequence is Free trade Area (FTA), Customs Union (CU), Common Market (CM) and Economic Union (EU) respectively. The basic components of the theory of custom union are trade creation and trade diversion. Trade creation tends to improve welfare whereas trade diversion tends to lower welfare. Further competitive nations gain more than complimentary nations due to economic integration. High-cost differentials between member countries create higher trade creation gains. If the initial pre-union tariff is high between members, then there is a greater scope of welfare increase. The union could lead to the realization of dynamic gains arising out of economies of scale, market interventions enforced competition, and expanded domestic and foreign investment increased income employment, and economic welfare in the economy. The most successful examples of the custom union are European Union (EU), the South Asian Free Trade Agreement (SAFTA), North American Free Trade Agreement (NAFTA).

4.8 Questions for Practice

A. Short Answer Type Questions

- Q1. Explain Define Custom Union.
- Q2. Explain post custom union equilibrium.
- Q3. Give the examples of custom union
- Q4. What is Trade Creation and Trade Diversion?
- Q5. What is the highest form of economic integration?
- Q6. What is NAFTA?
- Q7. What is SAFTA?

B. Long Answer Type Questions

- Q1. What is the meaning of Economic Integration? Explain partial equilibrium analysis of custom union.
- Q2. Explain various types of Economic Integration.
- Q3. Explain General Equilibrium Analysis of Custom union.
- Q4. What are the factors which determine the success of a custom union?

5.9 Suggested Readings

- Paul Krugman, Maurice Obstfeld, and Marc Melitz, International Economics: Theory and Policy, Addison-Wesley (Pearson Education Indian Edition), 9th edition, 2012.
- Dominick Salvatore, International Economics: Trade and Finance, John Wiley International Student Edition, 10th edition, 2011.
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MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 5: BALANCE OF PAYMENTS, EXCHANGE RATE AND TRADE STRUCTURE

STRUCTURE

5.0 Learning Objectives

5.1 Introduction

5.2 Balance of Payments: Meaning

5.3 Structure of Balance of Payments Accounts

5.4 Distinction between Balance of Trade and Balance of Payments

5.5 Adjustment Process in Balance of Payments

5.6 Foreign Trade Multiplier

5.7 Exchange Rate System

5.7.1 Fixed Exchange Rate its Merits and Demerits

5.7.2 Flexible Exchange Rate its Merits and Demerits

5.8 Summary

5.9 Questions for Practices

5.10 Suggested Readings

5.0 Learning Objectives

After reading this unit, you should be able to:

1. Understand the meaning of balance of payments
2. Distinguish between capital account and current account of balance of payments
3. Know the adjustment process of balance of payments
4. Describe the foreign trade multiplier

5. Distinguish between fixed and flexible exchange rate system and their merits and demerits

5.1 Introduction

In this unit, we will study the balance of payments problem and the types of foreign exchange rate. We often hear those developing nations have negative balances of payments and, as a result, have persistent foreign exchange deficits. Countries have been compelled to resort to corrective measures such as currency devaluations, tariffs, exchange controls, and contractionary monetary and fiscal policies as a result of persistent balance of payments imbalances. It is important to mention here that the so-called developed countries have not been an exception to this trend. Import substitution and export promotion policies to attain external balance have resulted in severe growth and trade issues for the world's economies. Besides this, we will also study the fixed and flexible rates of exchange and their merits and demerits.

5.2 Balance of Payments: Meaning

The balance of payments of a country is a systematic record of all its economic transactions with the outside world in a given year. It is a statistical record of the character and dimensions of the country's economic relationships with the rest of the world.

According to Harvey and Johnson, "*the balance of payments accounts for a country set out, in summary form, all the current and capital transactions which have taken place between the residents of that country and the rest of the world in a given period of time*".

According to Bo Sodersten, "*The balance of payments is merely a way of listing receipts and payments in international transactions for a country.*"

B. J. Cohen says, "*It shows the country's trading position, changes in its net position as foreign lender or borrower, and changes in its official reserve holding.*"

5.3 Structure of Balance of Payments Accounts

A country's balance of payments account is built on the idea of double-entry bookkeeping. Each transaction is recorded on the balance sheet's credit and debit sides. However, there is one way in which balance of payments accounting varies from commercial accounting. Debits (-) appear on the left side of the balance sheet, whereas credits (+) appear on the right side. In balance of payments accounting, however, credits appear on the left side of the balance sheet and debits appear on the right.

A credit transaction occurs when a payment is received from a foreign nation, whereas a debit transaction occurs when a payment is made to a foreign country. Exports of goods and services, transfer receipts from foreigners in the form of gifts, grants, and other similar items, borrowings from abroad, foreigner investments in the country, and official sales of reserve assets such as gold to foreign countries and international agencies are the main items shown on the credit side (+). Imports of goods and services, transfer payments to foreigners in the form of gifts, grants, and other similar items, lending to foreign countries, investments by residents in foreign countries, and official purchases of reserve assets or gold from foreign countries and international agencies are the main items on the debit side (-). As a result, these credit and debit items are presented vertically in a country's balance of payments account, according to the idea of double-entry bookkeeping.

The balance of payments has three accounts, the current account, the capital account and the official settlements account.

1. Current Account

All transactions pertaining to trade in commodities and services, as well as unilateral transfers, are included in a country's current account. Travel and transportation charges, insurance, foreign investment income and payments, and other service transactions are all examples of service transactions. Gifts, foreign aid, pensions, private remittances, and charity donations are examples of transfer payments made to foreigners by foreign individuals and governments.

The most important items in the current account of the balance of payments are merchandise exports and imports. Exports are reported as a positive item and are computed f.o.b. (free on board), meaning that shipping, insurance, and other costs are not included. Imports, on the other hand, are presented as a negative item and are computed c.i.f., which implies they include all costs, insurance, and freight. A country's visible trade balance, often known as merchandise trade or simply balance of trade, is the difference between its exports and imports. The balance of trade is favourable when visible exports exceed visible imports. Imports exceeding exports, on the other hand, is unfavourable.

Exports of products and services, as well as receipts of transfer payments, are recorded as credits (+) in the current account since they reflect revenues from foreigners. Imports of products and services, as well as issuance of transfer payments to foreigners, are recorded as debits (-), since they are payments to foreigners. The current account balance is the sum of these visible and invisible trade balances.

2. Capital Account

A country's capital account is made up of its financial asset transactions, which include short- and long-term lending and borrowing, as well as private and public investments. In simple words, the capital account illustrates the movement of loans and investments across international borders and indicates a change in a country's external assets and liabilities. Long-term capital transactions are international capital movements with a one-year or longer duration, such as direct investments such as the construction of a foreign factory, portfolio investments such as the purchase of foreign bonds and stocks, and international loans. Short-term international capital transactions, on the other hand, are for duration of three months to less than a year.

In the capital account, there are two types of transactions: private and government. Direct, portfolio, and short-term investments are all included in private transactions. Government transactions consist of loans to and from foreign official agencies. Borrowings from other nations and foreign direct investment reflect capital inflows in the capital account. Because these are receipts from foreigners, they are positive goods or credits. Capital outflows, on the other hand, are represented by lending to foreign nations and direct investments in other countries. Because they are payments to foreigners, they are negative items or debits.

The capital account balance is the net value of short-term and long-term direct and portfolio investment balances.

3. The Official Settlements Account

The capital account includes the official settlements account, often known as the official reserve assets account. It is important to mention here that the balance of payment accounts in the United Kingdom and the United States show it as a distinct account. "The official settlements account measures changes in a country's liquidity and non-liquid liabilities to foreign official holders, as well as changes in its official reserve assets over the course of a year."

A country's official reserve assets comprise its gold stock, convertible foreign currency and SDR holdings, and its net IMF position." It illustrates how a country's net official reserve assets have changed over time.

Errors and omissions is a balancing item that ensures that the total credits and debits of the three accounts are equal in line with double entry bookkeeping rules, ensuring that a country's balance of payments is always balanced in the accounting sense.

The current account is used to pay for goods and services that have been produced currently; it also contains interest earned or paid on claims, as well as gifts and donations. On the other hand, capital account is concerned with the payment of obligations and claims. The current account of the balance of payments has a direct impact on national income. The capital account, on the other hand, has no direct impact on revenue; instead, it impacts the amount of assets held by a country.

5.4 Distinction between 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. The movement of goods between countries is known as visible trade because the movement is open and can be verified by the customs officials. Balance of payments is more comprehensive in scope than balance of trade. It includes not only imports and exports of goods which are visible items but also such invisible items as shipping, banking, insurance, tourism, interest on investments, gifts etc. In this way, the balance of payments includes both the visible and invisible items. The balance of trade is only a part of the balance of payments.

Equilibrium in Balance of payments

Balance of payments always balances means that the algebraic sum of the net credit and debit balances of current account, capital account and official settlements account must equal to zero. Balance of payments is written as

$$B = R_f - P_f$$

Here,

B represents balance of payments, R receipts from foreigners, P payments made to foreigners.

When $B = R_f - P_f = 0$, the balance of payments is in equilibrium.

When $R - P > 0$, it implies receipts from foreigners exceed payments made to foreigners and there is surplus in the balance of payments.

On the other hand, when $R_f - P_f < 0$ or $R_f < P$ there is deficit in the balance of payments as the payments made to foreigners exceed receipts from foreigners.

If net foreign lending and investment abroad are taken, a flexible exchange rate creates an excess of exports over imports. The domestic currency depreciates in terms of other currencies. The exports become cheaper relative to imports.

Let us understand this with the help of an equation:

$$X+B=M+I$$

Here, X represents exports, M imports, I foreign investment and B foreign borrowing

$$\text{or } X-M = I-B$$

$$\text{or } (X-M)-I, -B=Q$$

The above equation shows that the balance of payments is in equilibrium. Any positive balance in its current account is exactly offset by negative balance on its capital account and vice versa. In the accounting sense, the balance of payments is always balanced. This can be shown with the help of the following equation:

$$C + S + T = C + I + G + (X-M)$$

or

$$Y - C + I + G + (X-M) [Y = C + S + T]$$

Here, C represents consumption expenditure, S domestic saving, T tax receipts/investment expenditures, G government expenditures, X exports of goods and services and M imports of goods and services.

In the above equation $C + S + T + GNI$ or national income (K) and $C + I + G = A$, where A is called 'absorption'.

In the accounting sense, total domestic expenditures ($C + I + G$) must equal current income ($C + S + T$, that is $A = Y$). Moreover, domestic savings (S_d) must equal domestic investment (I_d). Similarly, an export surplus on the current account ($X > M$) must be offset by an excess of domestic savings over investment ($S_d > I_d$). According to the basic concept of accounting, the balance of payments always balances in the accounting sense. The inflow and outflow of a transaction are recorded on the credit and debit sides of the accounting system, respectively. As a result, the credit and debit sides are always equal. If the current account is in deficit, it is compensated for by a corresponding surplus in the capital account, which is achieved via borrowing from overseas or withdrawals from gold and foreign exchange reserves, and vice versa. As a result, the balance of payments is always balanced in this regard.

Disequilibrium in Balance of Payments

Disequilibrium in the BOP of a country may be either a deficit or a surplus. When a country's autonomous receipts (credits) do not match its autonomous payments, the country's BOP shows a deficit or surplus (debits). There is a surplus in the BOP if autonomous credit receipts exceed autonomous debit payments, and the disequilibrium is considered to be favourable. A deficit or surplus in BOP of a country appears when its autonomous receipts (credits) do not match its autonomous payments (debits). If autonomous credit receipts exceed autonomous debit payments, there is a surplus in the BOP and the disequilibrium is said to be favourable. On the other hand, if autonomous debit payments exceed autonomous credit receipts, there is a deficit in the BOP and the disequilibrium is said to be unfavourable or adverse.

Check Your Progress I

Q1. Define balance of payments.

Ans. -----

Q2. What do you mean by capital account?

Ans. -----

5.5 Adjustment Process in Balance of Payments

When the expenditure is greater than income it leads to deficit in the balance of payments. To solve this problem, there is a need to equalize the two. The policies such as expenditure-reduction, expenditure-switching, devaluation and absorption approach are used for adjustment in the balance of payments. Let us discuss in detail the adjustment process of balance of payments.

A. Expenditure-Reduction Policies

A balance of payments deficit indicates that expenditure exceeds income. It should be corrected by bringing expenditure and income into balance. Monetary and fiscal policies are employed to reduce expenditures. A contractionary or tight monetary policy involves lowering interest rates in order to limit the money supply, whereas a contractionary fiscal policy involves cutting government spending and/or raising taxes. As a result, expenditure reducing policies reduce aggregate demand through higher taxes and interest rates, thereby reducing expenditure and output. As a result of the decrease in expenditure and output, the domestic price level falls.

This gives rise to switching of expenditure from foreign to domestic goods. Consequently, the country's imports are reduced and the balance of payments deficit is corrected.

Expenditure-Switching Policies:

The policy of shifting expenditure away from foreign-produced products and toward domestic-produced goods will result in an increase in domestic output. The payments imbalance will improve as long as the marginal propensity to spend is smaller than unity. There are two types of expenditure-switching policies that may be distinguished. One is devaluation, which tends to shift both local and international expenditures towards domestically produced items by making the country's goods relatively cheaper compared to imported goods. The other is the use of import restrictions, which tends to divert the spending of domestic consumers, towards the home-produced substitutes of foreign products. Controls may also be implemented sometimes in order to boost exports or, in other words, to persuade foreigners to shift their spending to domestic products.

B. Devaluation and Balance of Payment Adjustment

The devaluation of a currency means the deliberate lowering down of the external value of a unit of home currency expressed in terms of gold, SDR's or a foreign currency by an official edict. It is important to mention here that devaluation is different from exchange depreciation. The depreciation involves the reduction in the exchange value of home currency on account of the free working of market forces; whereas devaluation is the deliberate government decision to lower the value of currency to achieve equilibrium in the balance of payments.

Devaluation raises the domestic price of imports and reduces the foreign price of exports of a country. It is referred to as expenditure switching policy because it switches expenditure from imported to domestic goods and services. When a country devalues its currency, the price of foreign currency increases which makes imports dearer and exports cheaper. Hence, the consumer starts switching their demand to the home-produced goods and it will encourage the substitution of home-produced goods in place of foreign products. Thus, devaluation helps in improving the balance of payments through promoting exports and restricting imports. Let us understand the process with the help of figure 6.1.

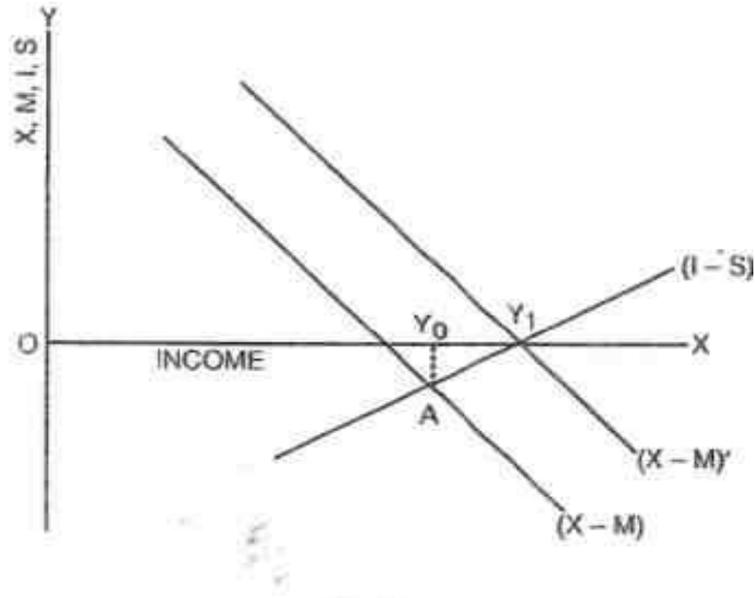


Figure 6.1

It is evident from figure 6.1 that on the X-axis, we take income and, on the Y-axis, we take exports, imports, investment and savings. The curve (X-M) is the net exports or balance of payments function. It varies inversely with income. The curve (I-S) is the net investment function which varies directly with the level of income. Initially given (X-M) and (I-S) function, the equilibrium takes place at the income Y_0 . In this equilibrium position, there is a balance of payments deficit amounting to AY_0 . The devaluation of home currency enlarges exports and reduces imports so that (X-M) shifts upto $(X-M)'$. Its intersection with (I-S) takes place exactly at the horizontal scale at the income Y_1 . Since no gap is left between (X-M) and the horizontal scale, the BOP deficit has been completely wiped out.

It is important to mention here that the beneficial effects of devaluation are not permanent. These can be available only for a limited time period until the cost-price structure abroad and in the home, country does not adjust to the new exchange parity. There are two alternative approaches to analyse the effect of devaluation upon the balance of payment situation:

- i. Elasticity approach or Marshall-Lerner condition:** This approach is related to the price effect of devaluation. The extent by which devaluation can affect an improvement in the payments deficit of a country depends upon the magnitude of the price elasticities of demand for and supply of imports. Marshall-Lerner condition states that when the sum of price elasticities of demand for exports and imports in absolute terms is greater than unity, devaluation will improve the country's balance of payments, i.e.,

$$e_x + e_m > 1$$

Here, e_x is the demand elasticity of exports and e_m is the demand elasticity for imports. On the other hand, if the sum of price elasticities of demand for exports and imports in absolute terms is less than unity, $e_x + e_m < 1$, devaluation will worsen the BOP. If the sum of these elasticities in absolute terms is equal to unity i.e., $e_x + e_m = 1$, devaluation has no effect on the BOP situation.

ii. Absorption Approach: This approach was developed by Sydney Alexander. The absorption approach to balance of payments is general equilibrium in nature and is based on the Keynesian national income relationships. It is, therefore, also known as the Keynesian approach. It runs through the income effect of devaluation as against the price effect to the elasticity approach. This approach states that if a country has a deficit in its balance of payments, it means that people are ‘absorbing’ more than they produce. Domestic expenditure on consumption and investment is greater than national income. If they have a surplus in the balance of payments, they are absorbing less. Expenditure on consumption and investment is less than national income. Here the BOP is defined as the difference between national income and domestic expenditure.

C. Exchange Controls

Exchange controls try to divert domestic spending into consumption of domestically produced goods and services, while on the other, they attempt to divert domestic investment. It is said to be the most extreme method of BOP adjustment. A full-fledged exchange control system establishes complete government control over the country’s foreign exchange market. Foreign currency generated through exports and other means must be turned over to the government. The available foreign exchange supply is then distributed among the various purchasers (importers) based on national needs and set priorities. The fundamental aim of exchange controls, according to the BOP, is to ration out the available supply of foreign exchange in line with national interests.

Check Your Progress II

Q1. Difference between devaluation and depreciation.

Ans. -----

Q2. Define Marshall-Lerner condition.

Ans. -----

5.6 Foreign Trade Multiplier

In an open economy, the foreign trade multiplier is an extension of Keynes' investment multiplier. The foreign trade multiplier investigates the multiple effects of net exports (X-M) on a country's national revenue. It is the coefficient that links an increase in exports to an increase in revenue.

Let us suppose that the government expenditure and investment remain unchanged; therefore, the foreign trade multiplier can be defined as a ratio of a change in income (ΔY) to a net change in exports (ΔX).

$$K = \frac{\Delta Y}{\Delta X}$$

In a four-sector system, the aggregate demand is determined as

$$Y = C + I + G + X$$

Assuming G and I to remain unchanged, the change in exports can be understood as the excess of incremental income (or output) over the incremental consumption of the domestically produced goods.

$$\Delta X = \Delta Y - \Delta C$$

$$\frac{\Delta Y}{\Delta X} = 1 - \frac{\Delta C}{\Delta Y}$$

Taking the reciprocals on both sides

$$\frac{\Delta Y}{\Delta X} = \frac{1}{1 - \frac{\Delta C}{\Delta Y}}$$

$$K_f = \frac{1}{1 - \frac{\Delta C}{\Delta Y}} = \frac{1}{1 - b}$$

As a result, we get a foreign trade or export multiplier expression that is similar to the one used in the investment multiplier. (1-b) also indicates the marginal propensity to save (S/Y) and is a leakage from the income stream and the magnitude K_f is the reciprocal of it. However, 's' is not the inverse of b in the traditional sense. b is the marginal propensity to consume of the domestically produced goods. A part of the consumption goods may be imported from the foreign countries.

$$\Delta C = \Delta C_h + \Delta C_r$$

Here,

C_h is the consumption of domestically produced goods and C_f is the consumption of foreign goods or imports (M)

$$\frac{\Delta C}{\Delta Y} = \frac{\Delta C_h}{\Delta Y} + \frac{\Delta M}{\Delta Y}$$

$$b' = b + m$$

Thus, in the context of K_f , $(1 - b) = (s + m)$ and not just s as in the case of a closed two-sector model. Therefore,

$$K_f = \frac{1}{b+m} = \frac{1}{s+m}$$

If $s=0.25$ and $m = 0.15$, the foreign trade multiplier (K_f) will be equal to

$$K_f = \frac{1}{s+m} = \frac{1}{0.25 + 0.15} = \frac{1}{0.40} = 2.5$$

But the simple investment multiplier (K) in a two-sector economy will be $\frac{1}{s} = \frac{1}{0.25} = 4$

This demonstrates that K_f has a lower strength than K. It is important to note that this disparity is due to import leakage, or the marginal propensity to import (m). The foreign trade multiplier will be less if there is more import leakage, and vice versa. The amount of industrial development, degree of self-sufficiency, relative costs of domestic versus imported goods, people's tastes and import restrictions determined whether a nation has a high or low marginal propensity to import.

In a four-sector model the equilibrium may be determined when

$$Y = C + I + G + (X - M)$$

If it is assumed that government spending (G) and exports (X) are autonomously given and C, I, G and M are the linear functions of income, the effect of a net increase in exports upon national income can be determined as below:

$$Y = C + I + G + (X - M) \quad \dots(i)$$

$$C = C_0 + bY_d$$

$$C = C_0 + b(Y - T)$$

$$C = C_0 + b[Y - T] \quad \dots(ii)$$

$$I = I_0 + aY \quad \dots(iii)$$

$$G=G \quad \dots(\text{iv})$$

$$X=X \quad \dots(\text{v})$$

$$M = M_0 + mY \quad \dots(\text{vi})$$

Here C_0 , I_0 , G , X and M_0 are the autonomous amounts of consumption, taxes, investment, government expenditure, exports and imports respectively. T is the fixed amount of tax, b , a , and m are the marginal propensities to consume, tax, invest and import respectively. Y_a is the disposable income which is the excess of national income (Y) over taxes (T).

Substituting (ii), (iii), (iv), (v) and (vi) in equation, (i), we have

$$Y = C_0 + b[Y - T] + I_0 + aY + G + X - M_0 - mY$$

$$Y = C_0 + bY - bT + I_0 + aY + G + X - M_0 - mY$$

$$Y - by - aY + mY = C_0 + I_0 + G + X - M_0 - bT$$

$$Y[1 - b - a + m] = C_0 + I_0 + G + X - M_0 - bT$$

$$Y = \frac{1}{1 - b - a + m} [C_0 + I_0 + G + X - M_0 - bT]$$

The above equation is the multiplier equation and the magnitude of foreign trade or export multiplier (K_f) is:

$$K_f = \frac{1}{1 - b - a + m}$$

If $b=0.60$, $a = 0.20$ and $m = 0.10$, the magnitude of foreign trade multiplier can be determined by substituting these values:

$$K_f \frac{1}{1 - 0.60 - 0.20 + 0.10} = \frac{1}{1 - 0.70} = \frac{1}{0.30} = \frac{10}{3} = 3.33$$

5.7 Exchange Rate System

The balance of payments and the foreign exchange rate are inextricably linked, and they are two different ways of looking at the same issue, namely a country's international receipts and payments situation. It is worth noting that not all national currencies are accepted globally for the settlement of foreign transactions. Foreign exchange is a word that refers to foreign currency that is accepted globally by all trading nations. A price must be set between the two currencies in order to convert domestic currency to foreign currency. The amount of domestic currency that must be paid per unit of foreign exchange is referred to as the foreign exchange

rate. As a result, the foreign exchange rate is a price that is set by the demand for and supply of foreign exchange, just like the price of any other commodity.

5.7.1 Fixed Exchange Rate System

A pegged exchange rate is another term for a fixed exchange rate. In this case, all international transactions take place at the rate of exchange fixed by the monetary authority. The exchange rate is either fixed by the government through legislation or it comes into existence through the intervention in the foreign exchange market by the authorities. If market forces or speculator actions cause the rate of exchange to deviate from the set equilibrium level, the monetary authority or government intervenes in the foreign currency market to keep the rate of exchange at the equilibrium level. Market intervention in such a situation is called pegging, i.e., the sale or purchase of foreign exchange in the foreign exchange market. When there is an excess supply of foreign exchange, the authorities purchase it, and when there is an excess demand for it, they sell it.

Merits of Fixed Exchange Rate System

Following are the merits of fixed exchange rate system:

- 1. Promotion of International Trade:** If the exchange rates are fixed or stable, the prices of internationally traded goods become more stable and predictable. Under this system, the exporters know in advance what they will receive in terms of the domestic currency and importers know how much they will have to pay.
- 2. International Division of Labour and Specialisation:** The system not only promotes international trade but also contributes in raising productivity and absolute output through increased international division of labour and specialisation.
- 3. Promotion of Economic Integration:** It is just like a common currency in which the exchange value of the currency remains unchanged in terms of the domestic currency of a particular country. Therefore, it paves the way for greater degree of economic integration among the countries.
- 4. Long-term Capital Investments:** In this system, there is a little scope for uncertainty and risk. Therefore, the investors can plan long-term international investments.
- 5. No Adverse Effect of Speculation:** As the exchange rate remains fixed under this exchange system, there is little scope for speculation and the consequent adverse effects.

6. **Confidence in the Strength of Currency:** This system does not involve appreciation or depreciation of currency and if the value of currency declines, there is no risk of loss due to larger holding of foreign currency. This will increase the confidence in the strength of the domestic currency.
7. **Beneficial for Trade-dependent Countries:** It is imperative that the countries which depend upon trade should have more stable exchange rates so that chronic fluctuations in the rates of exchange cannot create severe dislocations in trade and domestic production.
8. **Growth of Money and Capital Markets:** It is also useful to stimulate the growth of money and capital markets through facilitating rapid expansion of trade and international capital flows.

Demerits of Fixed Exchange Rate System

The main demerits of fixed rates of exchange are as follows:

1. **Primacy to Exchange Stability:** Maintenance of exchange rate at some official level by the authorities under this system results in sacrifice of the objectives of price stability and full employment.
2. **International Transmission of Economic Variations:** It is generally believed that stability of exchange rate is responsible for transmitting the economic disturbances in one country to another.
3. **Need to Build Exchange Reserves:** To undertake the pegging operations authorities have to maintain the exchange rate at an official level. For this purpose, it has to maintain sufficient reserves of foreign currencies; however, the holding of these reserves of foreign currencies in the idle form is very costly, uneconomical and wasteful.
4. **Heavy Burden upon the Authorities:** For undertaking the pegging operations, the government or monetary authority has to mobilise sufficient international liquid resources. If it fails in the event of mobilise reserves of foreign currencies, the home currency has to be devalued.
5. **Exchange controls:** For adopting the policy of fixed exchange rate, it is necessary that complicated exchange control mechanisms should be adopted. The quite complicated exchange control mechanism will result in misallocation of economic resources, bureaucratic inefficiency and corruption.

6. **No Solution to the BOP Problem:** Due to the high involvement of the government in this the fixed exchange rate system cannot resolve the problem of BOP deficit; it simply increased it.
7. **Suited only for Short Period:** This policy cannot be pursued as a long-term policy because technological and structural changes take place in the economies. As a result, the official rate of exchange may be rendered unrealistic. Besides this, stable exchange rates are practically impossible and economically inefficient in the long run.
8. **Greater need for Institutional Arrangements:** The fixed exchange system, however, requires accommodating transactions for the BOP adjustments. It means under this system, to overcome their recurring needs of liquidity, countries have to rely upon the international lending institutions.

5.7.2 Flexible Exchange Rate System

It is also called a fluctuating exchange rate system. It is determined by the free working of the market forces. If there is an excess of demand for foreign currency over its supply, the foreign currency appreciates whereas the home currency depreciates. On the other hand, when the supply of foreign currency exceeds the demand for it, the foreign currency depreciates and the exchange value of home currency appreciates in terms of the foreign currency. Thus, there are appropriate variations in the exchange rates to maintain the BOP equilibrium.

It is important to mention here that whether there is a BOP deficit or surplus, it can be easily counterbalanced by the free movement of the exchange rates. The monetary or fiscal authorities of the country are not required to intervene to correct the disequilibrium in BOP.

Merits of Flexible Exchange Rate System

The main merits of the flexible exchange rate system are as below:

1. **Simple Mechanism:** This system is very simple because without involving any intervention of the monetary or fiscal authorities in the foreign exchange market it can work efficiently.
2. **Continuous Adjustments:** Through appropriate changes in the rates of exchange, there are smooth and continuous adjustments in foreign exchange market under this system.
3. **No Need of Accommodating Gold or Capital Movements:** The automatic exchange rate adjustments ensure the maintenance of BOP equilibrium even without the accommodating transactions of gold or capital movements.

- 4. No Necessity of Adjustments through Price and Income Changes:** This system can ensure the automatic BOP adjustment through the simple mechanism of freely flexible exchange rates rather than price and income variations.
- 5. Removal of the Problem of International Liquidity:** In a system of flexible exchange rates, a deficit country is simply to allow its currency to depreciate and adjust the BOP equilibrium. The activities of speculators will ensure the additional supply of liquid resources or withdrawal of surplus liquidity from the exchange market.
- 6. Economical:** The flexible exchange system is very economical. There is no idle holding of international currency reserves which is essential under the system of fixed exchange rates. The countries having a flexible exchange system can make optimum use of their entire available exchange reserves.
- 7. No Need of International Institutional Arrangements:** In a system of flexible exchange rates, there is no necessity of international monetary institutions for borrowing and lending of short-term funds for maintaining exchange rate parities and to settle BOP problems.
- 8. Autonomy in Domestic Policies:** In case of a flexible exchange system, the continuous automatic adjustments in external disequilibria can be possible without resort to deliberate deflationary or inflationary policies.
- 9. No Necessity of Controls:** In contrast, the flexible exchange system can maintain the exchange values of the currencies at their natural level through market adjustments. The regime of controls can be dismantled, if reliance is placed upon the flexible exchange rates.
- 10. No Retaliation:** In the past, under the system of fixed exchange rates, the world was witness to competitive and retaliatory devaluation. Such developments and tariff warfare are not likely to exist, at least to some extent, under a system of freely flexible exchange rates.

Demerits of Flexible Exchange Rate:

The main demerits of flexible exchange rates are as follows:

- 1. Possibility of Disequilibrium:** Due to free working of the market forces, it is believed that the demand and supply forces in the foreign exchange market operate in such a way that the exchange rate diverges farther and farther from the natural level of rate of exchange and the variations in the rate of exchange fail to bring about the BOP equilibrium.

2. **Indirect Government Intervention:** In this system, indirect government intervention through the impact of monetary and fiscal policies can be possible. The imposition of additional excise duties raises costs and prices of the products and has a discouraging effect upon exports.
3. **Not Practical:** It is believed that in the regime of price controls, for instance, control over commodity prices, wages, interests, rents, profits etc., there can be no justification of letting the price of foreign exchange to be determined by the market forces.
4. **Exchange Risks and Uncertainty:** The flexible exchange system causes frequent variations in the rates of exchange which create exchange risks, breed uncertainty and impede the international trade and capital movements.

Check Your Progress III

Q1. What do you understand by the flexible exchange rate system?

Ans. -----

Q2. Write any two merits of fixed rates of exchange?

Ans. -----

5.8 Summary

In this unit, we have studied that the balance of payments reflects a country's international economic situation in a variety of ways. The balance of payments in the case of an underdeveloped nation will indicate the extent to which the country's economic progress is reliant on financial support from industrially advanced capital lending countries. The balance of payments assists in analyzing or assessing a country's short-term international economic prospects, identifying the extent of its international solvency, and determining the appropriateness of a national currency's foreign exchange rate. As a result, a country's balance of payments acts as a barometer of its economic health.

5.9 Questions for Practices

A. Long Answer Type Questions

Q1. What is meant by balance of payments? Explain the balance of payments structure of a country.

- Q2. Explain the adjustment process in balance of payments.
- Q3. Explain in detail the foreign trade multiplier process.
- Q4. What is meant by fixed (pegged) rates of exchange? What are the merits and demerits of fixed exchange rates?
- Q5. Explain the flexible exchange rates. What are the merits and demerits of flexible exchange rates?

B. Short Answer Type Questions

- Q1. Explain the meaning of balance of payments.
- Q2. Distinguish between balance of payments and balance of trade.
- Q3. What do you mean by devaluation?
- Q4. Discuss the elasticity approach to devaluation.
- Q5. What is an absorption approach to balance of payments adjustment?
- Q6. Discuss the balance of payments adjustment through controls.
- Q7. What is foreign trade multiplier?
- Q8. Distinguish between fixed and flexible rates of exchange.

5.10 Suggested Readings

- P. Kindleberger: International Economics
- Bo, Soderston & Geoffrey Reed: International Economics
- D. K. Salvatore: International Economics
- K. C. Rana & Verma, K. N: International Economics
- H. G. Mannur, International Economics
- H.L Ahuja, Macro Economics

MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 6: STRUCTURE OF TRADE

STRUCTURE

6.0 Learning Objectives

6.1 Introduction

6.2 Trade between Developing and Developed Countries

6.3 Unequal Exchange and its impact on Balance of Payments

6.4 Current Problems of Trade and Finance of Developing Countries

6.5 Summary

6.6 Questions for Practice

6.7 Suggested Readings

6.0 Learning Objectives

After reading this unit, learner will be able to:

- Understand the trade between developing and developed countries
- Know the impact of unequal exchange on balance of payments
- Describe the current problems of developing countries.

6.1 Introduction

Foreign trade has a significant part in economic development. It is really important for less developed countries (LDCs). It provides the urge to develop the knowledge and experience that make development possible. The pattern of comparative advantages between the developed countries (DCs) and the LDCs is such that developed countries specialize in industrial production and exports while the less developed countries specialize in agricultural goods

production and exports, has resulted in unequal exchange and unfavourable trade conditions for the LDCs collectively.

6.2 Trade between Developing and Developed Countries

Trade between developed and underdeveloped countries usually causes difficult issues. Most developing nations' economies are built on agriculture, and many of them are tropical, thus they rely significantly on the proceeds from the export of one or two crops, such as coffee, cocoa or sugar. Such commodities have highly competitive markets, which mean that prices are particularly sensitive to changes in demand or supply. In contrast, the prices of manufactured goods, which are the most common exports of industrialised nations, are usually far more constant. As a result, as the price of its export product changes, the tropical country's "terms of trade," or the ratio of export prices to import prices, fluctuate dramatically, sometimes wreaking havoc on the domestic economy. Efforts at price stabilisation and output control have been attempted for nearly all key basic commodities. These initiatives have had varying degrees of success.

Trade between developed and developing countries has long been a source of disagreement. As multinational firms from rich nations transfer business to countries with cheaper labour pools and relatively less economic or political influence, critics point to exploitation of foreign labour and the environment, as well as the abandoning of native labour requirements.

Developing nations are becoming increasingly important in global trade. They accounted for 30 per cent of global exports in 2006, up from 19.5 per cent in 1996. The BRIC economies (Brazil, Russia, India, and China) now account for more than a quarter of all exports, up from 6 per cent to 12.4 per cent. China was responsible for a large chunk of this increase, with its share in global exports virtually tripling from 2.7 per cent to 7.6 per cent. India, on the other hand, while being a huge economy, made little contribution. Its proportion of global exports is still relatively modest, at little over 1 per cent in 2006. In contrast, industrialized nations export proportion dropped, with the United States' share falling from 13.9 per cent to 9.5 per cent. Japan's decrease was particularly dramatic; its share dropped from 8.6 per cent to 5.4 per cent.

However, the importance of developing nations as a source of import demand has increased as well, owing to increased foreign exchange availability and purchasing power, a fast rising middle class, and a strong desire for imported products. Between 1996 and 2006, EU imports to China increased by more than fourfold, while imports to Russia, (South-South Asia) SSA, Eastern Europe and Central Asia increased by more than thrice. Developing nations also

imported 38 per cent of total exports from the United States in 2006, up from 31 per cent in 1996.

It is important to mention here that successful developing nations have frequently adopted export-led economic growth policies, diversifying their economies away from basic commodities and toward manufactured goods. Developing nations have grown their presence in manufactured goods exports in recent years. In 2006, China's market share surpassed that of both the United States and Japan, rising from 3.2 per cent in 1996 to 9.8 per cent in 2006. Other developing nations' exports of manufactured products have also grown, with SSA's part growing from 7.1 per cent to 18.7 per cent. Developing nations boosted exports of mineral fuels and chemicals, the two product groups with the largest growth rates from 1996 to 2006. This was mostly due to higher pricing, but it was also owing to new natural resource discoveries and greater production efficiency.

6.3 Unequal Exchange and its Impact on Balance of Payments

It is generally believed that trade between developed countries (DCs) and less developed countries (LDCs) is characterized by unequal exchange.

Neo-Marxists define it as a decline in periphery nations' (undeveloped nations) trading terms. The reason for this is that in the centre (developed nations), entrepreneurs' and productive factors' earnings rise faster than productivity, but in the periphery, income rises slower than productivity. The main reason for this is that monopolistic components in the center's product and factor markets have allowed them to maintain growing factor incomes while productivity gains have been dispersed through price reductions in the periphery.

According to Sutcliffe, unequal exchange means that, "exporters in industrialised countries possess more monopoly power than the exporters of underdeveloped countries thereby leading to unfavourable terms of trade for the latter.

Uneven trade between the periphery and the centre, according to Amin, is caused by wage disparities. Wages in the centre are higher due to increased productivity, whereas wages on the periphery are lower due to lower productivity. The rate of surplus value is higher on the periphery because real wages are lower.

Emmanuel propounded the theory of unequal exchange in international trade between DCs and LDCs in his book *Unequal Exchange: A Study in the Imperialism of Trade* (1970), which contributed to the latter's exploitation by the former. His theory is based on Marx's production

price theory. He argues that the major cause of economic disparity between DCs and LDCs is disparities in production processes and wages, which result in uneven trade exchange.

Emmanuel argues that LDCs have failed to capitalise on technical advancements to help them develop. On the other hand, through labor-saving technology, DCs have increased the ‘organic composition of capital’. This has resulted in unequal exchange between them.

In the words of Emmanuel’s, "Inequality of wages, as such, all other things being equal, is alone the cause of the inequality of exchange."

Unequal exchange, according to Emmanuel, happens when two unequal countries produce two different goods that are not in direct competition. Because wages are low in LDCs, the commodity’s cost of production and price are similarly cheap. On the other hand, because wages in DC are high, the commodity’s cost of production is high, and its price is high. As a result, the LDC commodity is cheaper and the DC commodity is more expensive, there is an uneven exchange of trade between the two. The reason for this is that in order to get a given quantity of imports from the latter nation, the former country (LDC) exports more of its commodity (DC).

Let us understand the unequal exchange between two countries. A and B are two countries that produce good X and good Y, respectively. Assume that the pay rate in industrialised nation A doubles, allowing it to buy four units of each item, but the wage rate in developing country B only buys two. Because both nations’ profit rates are the same, the pricing in both countries are based on a percentage of profit on unit labour expenses $(1 + r)$.

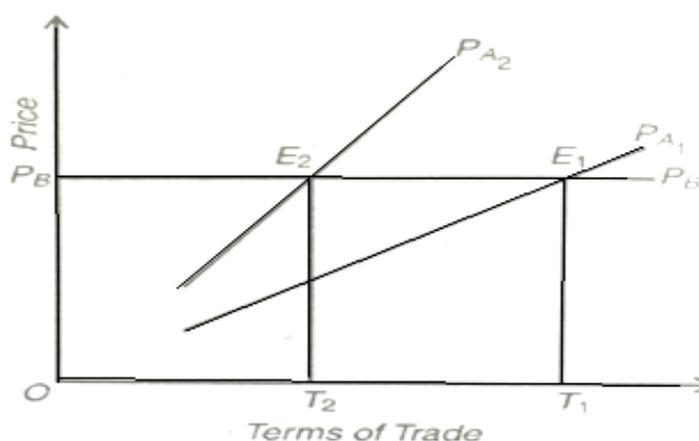


Figure 7.1

The theory of unequal exchange is explained in Figure 6.1. It is clear from the figure that prices in the two nations are plotted on the vertical axis, while terms of trade are plotted on the

horizontal axis. $P = 1$ is used to represent the price of commodity Y in less developed nation B, which is represented by the horizontal line PPB. The price of commodity X in country A is shown by the curve P_{A1} , the equilibrium terms of trade is given by OT_1 . An increase in wages and costs leads to the rise in price in country A which shifts its price curve to the left as P_{A2} . As a result, the terms of trade of country B are reduced to OT_2 . Unequal exchange is measured as the difference between the actual terms of trade, OT_1 , and the changed terms of trade, OT_2 . Thus, the terms of trade of country B have worsened by T_1T_2 .

Economists have strongly criticised Emmanuel's theory of unequal exchange for the following reasons:

1. According to this theory wage differences between DCs and LDCs are the reason for unequal exchange; however, it does not explain many factors that affect wage differences between the two types of countries.
2. This theory believed that wage differences lead to unequal exchange, there can be unequal exchange between DCs because differences in wages are also found among them. So the theory breaks down as it is equally applicable on DCs and not on LDCs alone.
3. If wage differences are measured in money wages and are caused by variations in labour productivity, LDCs' terms of trade may be extremely poor. There would be no disparities in costs and prices per unit of production if differences in money salaries equalled differences in productivity in LDCs and DCs. LDCs' terms of trade become unfavourable only when real wages do not grow at the same rate as productivity in comparison to DCs.
4. According to this theory, unequal trade exchange leads to LDCs being exploited by DCs. Economists disagree with Emmanuel's point of view since unequal exchange hasn't stopped LDCs from growing.
5. Capital is assumed to be movable within countries under the theory. If this is correct, then wage disparities will be reduced as money flows from rich to developing countries. As a result, the theory falls apart.

Developed countries exploit less developed countries by pushing them to specialise in the export of primary items with inelastic demand in terms of both price and income, according to economists. As a result, LDCs continue to confront stagnating export revenues, which are frequently accompanied by price fluctuations. In LDCs, this has resulted in a foreign exchange shortage and a BOP deficit.

Economist gives two reasons for BOP deficit:

- (a) DCs maintain high export prices to LDCs while maintaining low import prices from LDCs.
- (b) Foreign capital from DCs dominates major sectors of LDCs, resulting in huge profits, interest, and principal outflows.

Check Your Progress- I

Q1. Explain the meaning of foreign trade.

Ans:-----

Q2: Why foreign trade is important for developing countries?

Ans:-----

Q3. Define unequal exchange?

Ans:-----

6.4 Current Problems of Trade and Finance of Developing Countries

Less developed nations see foreign trade as a mechanism of global income inequalities between rich and poor countries, where the poor are exploited by the strong. Foreign trade, according to LDCs, was and continues to be a development engine for the less developed countries of the 18th and 19th centuries. The statistics on worldwide economic inequalities after WWII are shocking. While one-fifth of the world's population lives in the developed world, which has more than three-fourths of the world's GNP and living standards, the remaining four-fifths of the world's population lives in the developing world, which has just one-fourth of the world's GNP. With around 30 per cent of the world's population, the poorest LDCs have just 3 per cent of the world's revenue and their average per capita income of about US \$120 is less than 3 per cent of the average per capita income in the market economies of the DCs. It is important to mention here that the annual GNP growth rate in the United States alone exceeds the overall GNP growth rate in India or the total GNP growth rate in Africa minus South Africa.

Global income gaps are not only wide, but they are also widening at an alarming rate. All of this has caused LDCs to feel that there is a fundamental flaw in the system that connects wealthy and poor nations through international trade in products and services, as well as

international capital and labour migrations between the two sorts of countries: industrial rich and agrarian poor.

LDCs think that today's economic development process, which is founded on the age-old principle of comparative advantage, has been extremely frustrating for them. They believe that international interdependence between them and affluent countries is not founded on equality or justice. They also believe that the so-called comparative advantage in agricultural products production and exports was artificially and purposefully established by the colonial production pattern imposed on them by industrial nations with ulterior objectives. By destroying industry and entrepreneurship that existed in LDCs prior to colonisation, colonial powers promoted their own comparative advantage in industrial manufacturing, and LDCs in Asia, Africa and Latin America were reduced to the status of primary producers of raw materials, minerals and some farm products. As a result, LDCs became low-cost suppliers of these commodities for metropolitan industrial powers, who inundated LDC marketplaces with their manufactured goods. This colonial pattern of production and trade connection resulted in a number of negative effects for LDCs, many of which are documented in colonial imperialism's history.

Excessive reliance on foreign trade or excessive export concentration in two or three lines of production do not constitute a cause for serious concern in and of themselves, provided that foreign trade in that narrow range of export concentration was profitable or lucrative to the country concerned. The condition of the LDCs is difficult since their export products, such as tea, coffee, cocoa, bananas, sisal, aluminium, bauxite, tin, jute, and other textiles, suffer from low income and price elasticity of demand in the global market.

These commodities face a number of challenges in addition to low income and price elasticity. As a result, their development chemistry has very little "modernization, education and skill" substance; they also have little opportunity for expanding employment and creating well-paid jobs. The DCs, on the other hand, have developed a near-monopoly level of specialisation in industrial manufactured products manufacturing.

They manufacture electronics and electrical goods, as well as transportation equipment such as automobiles, ships, and aircrafts, as well as tractors, military hardware, and pharmaceuticals. They also provide services such as international shipping, banking, insurance, and foreign exchange operations. The demand for these items is high, and the supply situation is improving. They benefit from strong demand elasticity of income and rising returns to scale in manufacturing and supply. They also have a high degree of modernization content in that they

provide limitless opportunities for the application of science and technology, as well as high levels of education, competence and technical and management abilities. In general, industrial output provides opportunities for more job creation and higher pay.

Let us examine the trade problems of less developed countries in detail

- 1) **Poverty among Developing Countries:** In comparison to the affluent countries of the globe, the average per capita income of all emerging countries is extremely low. It is crucial to note that utilising exchange rates to convert other nations' per capita income into dollars without taking into account disparities in the buying power of money in each country substantially exaggerates the differences in per capita incomes between developed and developing economies. Aside from that, income disparity in emerging nations is significantly higher than in wealthy countries. Due to sluggish development and high unemployment in the 1980s, industrialised nations strengthened the trade protection they offered to several of their big sectors against imports from emerging countries. These were the sectors in which emerging nations had or were acquiring a competitive edge.
- 2) **Exports of Primary Products:** Most of the developing nations export primarily primary items in their early stages of development, and as a result, their products cannot command a good price in the international market. Developing nations have been unable to increase their export profits due to a lack of variety in their exports.
- 3) **Unfavourable Terms of Trade:** Another issue with trade that these developing nations confront is that the terms of trade are always in their favour. In the lack of adequate infrastructure and a quality-improvement effort, these nations' terms of trade deteriorated over time, eventually working against the country's overall interests. According to Wilson, Sinha, and Castrce's (1969) empirical study on LDCs' terms of trade, between 1950-53 and 1962-65, LDCs' commodity terms of trade deteriorated by approximately 9 per cent, whereas DCs' commodity terms improved by about 10 per cent. Besides this, the study also discovered that both LDCs and DCs improved their income terms of trade over the same time, however the LDCs improved by 57 per cent while the DCs improved by 136 per cent. LDCs also believe that agricultural protectionism in the DCs, as well as the development of synthetic and other alternatives for natural raw materials that the LDCs sell to the DCs, are threatening their export prospects.
- 4) **Imports for Maintenance and Development Work:** The developing nations are dealing with an increase in developmental imports, which include various types of machinery and

equipment for the development of various industries, as well as a significant increase in maintenance imports for collecting intermediate goods and raw materials required by these industries. The increasing number of imports has posed a major issue in terms of round-the-clock administration of international trade.

- 5) **Higher Import Intensity:** Another particular challenge confronting developing nations is the increased import intensity in the growth of industries as a result of the import intensive industrialisation process used in these countries to fulfil the needs of elitist consumption i.e., colour TVs, VCR, Refrigerators, Motorcycles and cars etc. Such an increase in elite spending has resulted in a massive weight of growing imports in these emerging countries, culminating in a major balance of payment problem.
- 6) **Adverse Balance of Payment Position:** Developing nations are grappling with the challenge of rising imports and poor export growth, resulting in a widening balance of payments imbalance. In certain nations, the imbalance has grown to such a degree at one point in time that it has resulted in a major international trade crisis. Furthermore, the LDCs are treated unfairly by international liquidity and monetary arrangements. It is a well-known fact that LDCs' trade deficits have exploded in recent years. To make matters worse, the LDCs' foreign debt burden has increased a lot. As a result, debt-service obligations eat up a substantial portion of LDC export profits, leaving the LDCs short on both developmental capital and international liquidity: a balance of payment restriction and a lack of foreign exchange resources can be an obstacle to the development of less developed countries
- 7) **Depreciation and Depleting Foreign Exchange Reserve:** The steep devaluation of developing nations' currencies against the dollar and other currencies has resulted in a significant rise in the value of their imports, resulting in a massive trade deficit. As a result of rising import volumes and a persistent balance of payment issue, developing countries may face depletion of foreign currency reserves.
- 8) **International Liquidity Problem:** The majority of poor countries have been dealing with a far more acute international liquidity crisis. As a result of their chronic lack of capital and technology, many countries are heavily reliant on industrialised countries for their limited resources. In addition to this, poor nations are only allocated a modest portion of new foreign reserves produced across the world. LDCs got only \$3.7 billion of the \$102 billion in international reserves produced between 1970 and 1974, accounting for less than 4 per

cent of total international reserves. Similarly, 75 per cent of SDR allocations go to developed countries, with the remaining 25 per cent going to developing countries, where 75 per cent of the world's population lives in poverty. It is paradoxical that those who do not require more liquidity benefit the most from it, while others who do require it the most are denied access.

9) Unequal Distribution of Gains from Trade: The way markets operate and the nature of traded commodities varies between developing and developed nations. As a result of these disparities, the industrialised nations reap a disproportionate share of the advantages of trade. Worse, such disparities frequently lead to LDCs being more reliant on DCs. According to Salvatore, "With developing nations specialising in primary commodities and developed nations specialising in manufactured products, all or most of the dynamic benefits of industry and trade accrue to developed nations, leaving developing nations poor, undeveloped and dependent."

10) Export Instability: LDC exports tend to fluctuate more dramatically from year to year than exports from industrialised nations. Variability in the export sector contributes to variations in GDP and domestic price levels since many LDCs have a relatively high degree of openness (i.e., a high ratio of international trade to GDP). As a result of international trade, business cycles are passed from industrialised to underdeveloped countries. This creates a lot of uncertainty for both producers and consumers. Furthermore, the insecurity of exports makes growth planning more challenging.

11) Inadequate International Aid Arrangements: According to less developed countries international aid arrangements are inadequate. Aid is insufficient, and it disproportionately benefits the relatively wealthy LDCs rather than the poorest and most needy LDCs. Aid is also utilised as a political weapon by the DCs, with aid going to LDCs that share the DCs' political philosophies and military goals. Worse, foreign funding comes with conditions, such as procurement tying, project tying and double tying. Procurement-tying occurs when aid is granted with the express requirement that the recipient nation purchase all of its commodities from the donor country. This would prevent the aid-receiving country from "shopping about," that is, purchasing commodities from the world's lowest sources of supply. Because assistance-giving nations must overprice their commodities supplied to aid-receiving countries, the net value of aid to LDCs would be reduced. Aid would be tied to specific projects that are of export importance to the developing countries.

12) Protectionist Framework of Developed Countries: The protectionist framework of the DCs works against the LDCs' ability to produce and export industrial goods. In addition to tariff obstacles, the DCs have imposed a slew of non-tariff barriers to the LDCs' products. LDCs are particularly worried about the widespread coverage given to the loss of employment in the DCs as a result of cheaper textile, garment, and other imports from the LDCs.

To put the difficulties in perspective, the repercussions of considerable importance to the LDCs, insofar as they produced structural deformities within the LDCs and the system of unequal trade relationships between the LDCs and the DCs, should be briefly remembered. We may say the following facts about LDCs in general.

Agriculture is overly reliant on it as a source of national revenue, employment, and livelihood for millions of people, as well as a major source of foreign exchange earnings with which they may fund their non-agricultural imports. They are too reliant on foreign trade, as seen by their astonishingly high foreign trade-to-GDP ratios.

There is an overabundance of export concentration in two or three agricultural commodities that are subject to poor demand and supply situations, as well as future decline prospects.

Check Your Progress- II

Q1. What do you mean by international liquidity?

Ans:-----

Q2 Define import intensity.

Ans:-----

Q3 Define international aid.

Ans:-----

6.5 Summary

In this unit, we have studied that the less developed countries view foreign trade not as a proverbial engine of economic growth, but as a mechanism of world income disparities between rich and poor countries, where the weak are exploited by the powerful. Thus,

international trade and the current international economic system favors rich countries at the expense of developing nations. Besides this, we have also studied that poverty, foreign debt, shortage of international liquidity, export instability, inadequate foreign aid are some of the current problems which the developing countries are dealing with.

6.6 Questions for Practices

A. Short Answer Type Questions

- Q1. What are the features of less developed countries?
- Q2. State the composition of developed and less developed countries' trade.
- Q3. Mention four problems of developing countries.
- Q4. What is export instability?
- Q5. How unequal exchange impacted the BOP?

B. Long Answer Type Questions

- Q1. Explain in detail the trade between developed and less developed countries.
- Q2. Define unequal exchange. What is the impact of unequal exchange on BOP?
- Q3. Mention in detail the problems of less developed countries.

6.7 Suggested Readings

- P. Kindleberger: International Economics
- Bo, Soderston & Geoffrey Reed: International Economics
- D. K. Salvatore: International Economics
- K. C. Rana & Verma, K. N: International Economics
- H. G. Mannur, International Economics
- H.L Ahuja, Macro Economics

MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 7: IMF AND INTERNATIONAL MONETARY SYSTEM

STRUCTURE

7.0 Learning Objectives

7.1 Introduction

7.2 International Monetary System

7.2.1 Meaning and Definition

7.2.2 Importance of International Monetary System

7.2.3 Evolution of International Monetary System

7.3 Gold Standard: 1880-1914

7.3.1 Adjustment Mechanism under Gold Standard: The Price Specie-Flow Mechanism

7.3.2 Collapse of Gold Standard

7.3.3 Inter war Period 1918-1939

7.4 Bretton Woods Exchange Rate System and International Monetary Fund

7.4.1 Creation of IMF

7.4.2 Operation of Bretton Woods Exchange Rate System

7.4.3 Collapse of Bretton Woods Exchange Rate System

7.5 International Monetary Fund (IMF)

7.5.1 Objectives of IMF

7.5.2 Organisation and Financial Structure of the Fund

7.5.3 Functions of IMF

7.5.4 Working, Lending Facility and Special Drawing Rights (SDRs)

7.6 International Liquidity

7.6.1 Problems of International Liquidity

7.6.2 IMF and International Liquidity

7.7 Present Managed Floating Exchange Rate System

7.7.1 Key Features

7.7.2 Problems with Present Exchange Rate Arrangement

7.7.3 Proposals for International Monetary Reforms

7.8 Summary

7.9 Questions for Practices

7.10 Suggested Readings

7.0 Learning Objectives

After reading this unit, learner will be able to:

- Define the International Monetary System and underlying its importance.
- Describe the Gold Standard and its basic Adjustment Mechanism.
- Understand the reasons for collapse of Gold Standard.
- Know about Reconstruction and Exchange Rates in the Inter War Period 1914-1939.
- Describe the Bretton Woods exchange rate system and International Monetary fund.
- Know about factors responsible for the downfall of the Bretton Woods System.
- Know about the Objective, Functions and Organisation of IMF.
- Understand more about the working of IMF through its lending facility and SDRs

7.1 Introduction

In order to understand how the international monetary system works, you should recall that every country has its own unique currency. A currency that is acceptable in one country is not generally accepted in another country. For example, a Rupee is not legally accepted as a medium of exchange in United States of America. This indicates that there should be some system in place to facilitate currency exchange activities as international trade depends on the smooth exchange of currencies between countries.

The first half of the 20th century was marked by two World Wars and a Great Depression that caused enormous economic destruction in both Europe and the United States. These historic events sparked the need to create such an international monetary system that would stabilize currency exchange rates, reduce the severity of balance-of-payments deficits of individual countries and eliminate destructive mercantilist trade policies such as competitive devaluations and foreign exchange restrictions. A well-functioning international monetary system is a public good that is essential for promotion of trade and financial stability. The present lesson will give insights to a comprehensive understanding of the various aspects of evolution of International Monetary Systems and International monetary fund.

7.2 International Monetary System

In this section you will learn about the meaning, definition, role and evolution of the International monetary system.

7.2.1 Meaning and Definition

International monetary system is a well-designed system that governs the use and exchange of money around the world and between countries. Each country has its own currency as money and the international monetary system governs the rules for valuing and exchanging these currencies. In other words, the international monetary system determines how foreign exchange rates are set and how governments can affect exchange rates. Thus, the central element of the international monetary system involves the arrangements by which exchange rates are set.

The purpose of an exchange-rate system is to facilitate and promote international trade and finance. International Monetary System is also known as “International Monetary and Financial System” and “International Financial Architecture”. There are many participants like MNCs (Multinational Corporations), Investors, Financial Institutions etc. in the International Monetary System. It is the global network of the government and financial institutions that determine the exchange rate of different currencies for international trade. It serves as a governing body that sets rules and regulations by which different nations exchange currencies with each other.

To sum up we can say that international monetary system is a set of arrangements, rules, practices and institutions under which payments are made and received for international transactions across national boundaries.

As defined by Eichengreen (2008), *“the international monetary system is the glue that binds national economies together. Its role is to lend order and stability to foreign exchange markets,*

to encourage the elimination of balance-of-payments problems, and to provide access to international credits in the event of disruptive shocks”

In short, we can define international monetary system as a set of arrangements, rules, practices and institutions under which payments are made and received for international transactions across national boundaries.

7.2.2 Importance of International Monetary System

The Role of the international monetary system was well described by economist Robert Solomon: *“Like the traffic lights in a city, the international monetary system is taken for granted until it begins to malfunction and to disrupt people’s lives”*.

In global economy where different nations trade with each other, many kinds of problems may arise like the uneven distribution of benefits, the instability of the financial system, the fear of global monopolies and oligopolies. These problems provide sufficient reason for well-established international monetary system. Also, with the growing complexity in the international trade and financial market, the international monetary system is necessary to assign a standard value of the international currencies. The rules and regulations set by the international monetary system to regulate and control the exchange value of the currencies are agreed upon by the respective governments of the nations. Thus, the government’s stand may affect the decision making of the international monetary system. For example, change in the trade policy of a government may affect the international trade of goods and services.

International monetary system motivates and encourages the nations to participate in the international trade to improve their BOP and minimize the trade deficit. It aims to maximize the flow of international and investments through equitable distribution of the gains from trade among the nations of the world. It also helps in reallocating the capital and investment from one nation to another. It has grown over the years as a single architectural body with a vision to integrate the global economy. Some of the important achievements of the international monetary system over the years have been the establishment of World Bank and International Monetary Fund in the year 1944.

As suggested by Salvatore, there are basically three criteria to consider while evaluating the role of international monetary system. These are (i) Adjustment, (ii) Liquidity, and (iii) Confidence. The process of correcting balance-of-payments deficits is known as Adjustment. An efficient monetary system completes this adjustment process with least cost and time. Liquidity means the availability of sufficient international reserve assets to correct BOP

deficits. Here the role of International monetary system is to correct the BOP deficit of individual nations without deflating their currencies or creating inflationary pressures. Confidence refers to the knowledge that the adjustment mechanism is working adequately and that international reserves will retain their absolute and relative values.

7.2.3 Evolution of International Monetary System

There have been four stages in the evolution of the international monetary system:

- a) Gold Standard (1880-1914)
- b) Inter-war period (1918-1939)
- c) Bretton Woods system (1947-1971)
- d) Present International Monetary system (1972- Present)

In the subsequent sections you will study about first three stages. The fourth stage, i.e. the present International monetary system will be discussed in the next lesson.

7.3 Gold Standard: 1880-1914

Historically, gold has been one of the most popular exchange mediums that have been extremely effective as an asset that stores value. In the simplest terms, the gold standard is a monetary system that ties a currency's value directly with gold. Therefore, the currency can be exchanged for a set amount of gold and is guaranteed by the government. The Classic Gold Standard, from 1880 to 1914, was the initial phase of the International Monetary System. The other name of Classic Gold Standard is International Gold Standard. Only a few countries joined the Gold Standard in the early years of its existence. It was eventually adopted by almost all countries. During this time, gold coins and bullions were commonly used. This gold standard gave birth to a system of fixed exchange rates with minimum fluctuations. Because of the most fixed exchange rate, international trade saw a boost during this time. There was rapid expansion of free international trade. The exchange rates and prices were mostly stable. Further, free flow of labour and capital across political borders encouraged economic growth and world peace also. Gold Standard also made all countries of the world abide by strict monetary policy. This standard was helpful in correcting trade imbalances.

Under the gold standard, the countries accepted the major assets gold in settlement of international debt. The central bank of the country was always ready to buy and sell gold at the specified price. The rate at which the standard money of the country was convertible into gold was called the mint price of gold. However, the actual exchange rate between these currencies was above or below the mint parity rate by the cost of shipping gold between two countries.

A unit of a country's currency was defined as a certain weight of gold. A pound sterling could be converted into 113.0015 grains of fine gold and the U.S. dollar into 23.22 grains. Through these old equivalents, the value of the pound was $113.0015 / 23.22$ times that comes out to be approximately or 4.885 times that of the dollar. Thus 4.885 dollars was the 'par value' of the pound.

7.3.1 Adjustment Mechanism under Gold Standard: The Price-Specie-Flow Mechanism

The gold standard had some powerful automatic adjustment mechanism that could achieve the simultaneous achievement of balance of payment equilibrium by all the countries. The price-specie flow mechanism is a model developed by David Hume to explain how trade imbalances can be automatically adjusted under the gold standard. This mechanism is best illustrated using an example. Suppose there is a trade deficit i.e. more imports than exports. This results in an outflow of gold, subsequently decreasing domestic money supply. Then the price level falls, which in turn makes domestic goods relatively cheaper than foreign goods. This leads to more exports and less imports thereby self-correcting the trade imbalance.

7.3.2 Collapse of Gold Standard

Before World War I, gold standard worked efficiently and remained widely accepted. It succeeded in ensuring exchange stability among the countries. But with the starting of the war in 1914, gold standard was abandoned everywhere mainly because of two reasons (a) to avoid adverse balance of payments and (b) to prevent gold exports falling into the hands of the enemy.

The excessive use of gold exchange standard was also responsible for the break-down of gold standard. Many small countries which were on gold exchange standard kept their reserves in London and New York. As movement of gold involves cost, before 1914, such movement was not needed because London was working as the international monetary centre and the countries having deposit accounts in the London banks adjusted their adverse balance of payments through book entries. But, rumours of war and abnormal conditions forced the depositing countries to withdraw their gold reserves. As a result of this, the money in circulation exceeded the gold reserves of the country and those countries have to give up on Classic Gold Standard. This led to the abandonment of the gold standard.

Political instability among the European countries also was responsible for the failure of gold standard. There were rumours of war, revolutions, political agitations, fear of transfer of funds to other countries. All these factors threatened the safe working of the gold standard and ultimately led to its abandonment. After the war in 1918, efforts were made to revive gold

standard and, by 1925, it was widely established again. But, the great depression of 1929-33 ultimately led to the breakdown of the gold standard which disappeared completely from the world by 1937.

7.3.3 Inter war Period 1918-1939

The period between World War I and World War II is known as the Interwar Period. This was the next episode of the International Monetary System from 1918 to 1939. After the World War I, a wave of economic nationalism swept the European countries. With an objective to secure self-sufficiency, each country followed protectionism and thus imposed restrictions on international trade. This was a direct interference in the working of the gold standard. In this inter-war period, Britain was fast losing its position as an international financial centre. In the absence of such a centre, every country had to keep large stocks of gold with them and large movements of gold had to take place. During this time, Britain was replaced by the United States of America as the dominant financial powerhouse across the globe. During this period, all the economies had gone into a depression with a higher inflation rate. The gold standard system collapsed with a higher supply of money. Almost all countries started focussing on domestic revamping and not on international trade.

Check Your Progress- I

Q 1: What do you understand by the International Monetary System?

Ans.-----

Q 2: Write the three criteria to consider while evaluating the role of international monetary system.

Ans.-----

7.4 Bretton Woods Exchange Rate System and International Monetary Fund

It was in the 1940s that the United Kingdom and United States started discussion to formulate a new international monetary system. J.M. Keynes, a British economic thinker, and Harry Dexter White, a U.S. Treasury official, paved the way to create a new monetary system. In the year 1944, 730 representatives of the United States, the United Kingdom, and 42 other nations met at Bretton Woods, New Hampshire, to formulate the unified rules and policies that could provide the framework necessary to create fixed international currency exchange rates. They

signed the Articles of Agreement known as the Bretton Wood agreement. This led to the creation of Bretton Woods System also known as Gold Exchange Standard.

The new system also facilitated the creation of immensely important structures in the financial world i.e., the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), which is known today as the World Bank. However, the new international monetary system reflected the plan drawn up by Harry D. White of the United States. Treasury, rather than the plan submitted by John Maynard Keynes, who headed the British delegation.

The Bretton Woods agreement attempted to recreate key parts of the gold standard and produced a fixed but adjustable exchange regime, which was implemented in 1946. The agreement recognized the more important role of United States in world economy and incorporated the US dollar in international reserves.

7.4.1 Creation of IMF

As discussed above, the IMF was conceived in July 1944, when representatives of 44 countries agreed on a framework for international economic cooperation after the Second World War. They believed that such a framework was necessary to avoid a repetition of the disastrous economic policies that had contributed to the Great Depression. The system devised at Bretton Woods called for the establishment of the International Monetary Fund (IMF) basically for two purposes. First, to oversee those nations followed a set of agreed upon rules of conduct in international trade and finance and second objective was to provide borrowing facilities for nations to correct the temporary balance-of-payments difficulties.

The IMF came into formal existence in December 1945, when its first 29 member countries signed its Articles of Agreement. It began operations on March 1, 1947. Later that year, France became the first country to borrow from the IMF. The IMF's membership began to expand in the late 1950s and during the 1960s many African countries became independent and applied for membership. With the admission of the Soviet Republics and other nations during the 1990s, IMF membership reached 187 at the beginning of 2012. Today, the International Monetary Fund (IMF) is an organization of 190 countries, working to foster global monetary cooperation and facilitate international trade. Andorra is the latest member which joined on October 16, 2020.

7.4.2 Operation of Bretton Woods Exchange Rate System

The Bretton Woods system was a gold-exchange standard. The United States was to maintain the price of gold fixed at \$35 per ounce and be ready to exchange on demand dollars for gold at that price without restrictions. Other nations were to fix the price of their currencies in terms of dollars (indirectly in terms of gold) and intervene in foreign exchange markets to keep the exchange rate from moving by more than 1 per cent above or below the par value. Specifically, a nation would have to sell its dollar reserves to purchase its own currency in order to prevent it from depreciating by more than 1 per cent from the agreed par value. To prevent an appreciation of its currency by more than 1 per cent from the par value the nation would have to purchase dollars with its own currency. Within the allowed band of fluctuation, the exchange rate was determined by the forces of demand and supply.

The adjustment process under the Bretton Woods system had three stages, depending on the seriousness of payments problems:

- a) For temporary imbalances restrictive policies were to be avoided, and financing was to be pursued.
- b) For more serious problems, deficit countries were expected to adopt more restrictive monetary and fiscal policies, and surplus countries had an equal and parallel responsibility.
- c) For fundamental payments disequilibrium deficit countries were expected to devalue their currency but only after consultations with the IMF

Until the late 1950s and early 1960s, when other currencies became fully convertible into dollars, the U.S. dollar was the only intervention currency. So, the new system was practically a *Gold-Dollar Standard*. Nations were to finance temporary balance-of-payments deficits out of their international reserves and by borrowing from the IMF. Only in a case of fundamental disequilibrium was a nation allowed, after the approval of the Fund, to change the par value of its currency. Exchange rate changes of less than 10 per cent were allowed without Fund approval. Thus, the Bretton Woods system was in the nature of an adjustable peg system combining general exchange rate stability with some flexibility.

7.4.3 Collapse of Bretton Woods Exchange Rate System

An important factor to cause the collapse of the Bretton Woods System was the domestic inflation in the United States particularly after the escalation of Vietnam War from 1965. Another predominant cause of the breakdown of the Bretton Woods System was the problem

of liquidity. Any system of fixed or stable exchange rate could work efficiently only if there were sufficient international reserves. During the 1950's and 1960's, the U.S. deficits in BOP continued to increase. As Europe and Japan recovered from the war, international demand for dollars soared, putting pressure on the U.S. balance of payments. In 1960, the economist Frederic Triffin warned that international demand for dollars would mean either the U.S. losing all its gold or severe deflation in the rest of the world. The accuracy of his prediction quickly became apparent.

Consequently, the United States balance of payments reflects a steady flow of gold out of the country. The gold stock has declined to very near the "safe limit" of \$17 billion. Over the next few years, the U.S., U.K. and European countries cooperated to maintain international dollar liquidity while limiting gold outflows from the U.S. But by 1967, foreign claims on gold exceeded the U.S.'s gold reserves. In response, the U.S. resorted to capital controls, creating an international dollar shortage.

By the end of March 1968, U.S. gold reserves had fallen to \$10.7 billion. The end of Bretton Woods System came in August 1971, when President Nixon unilaterally suspended the dollar's convertibility to gold. In December 1971, there was an effective dollar devaluation of about 10.7 per cent. But the relief was short-lived. In March 1973, the U.S. government devalued the dollar by a further 10 per cent. This attempt to revive the fixed exchange rates also failed, and by March 1973, the major currencies began to float against each other.

Check Your Progress-II

Q1. Write a note on the creation of IMF.

Ans.-----

Q2. Which factors led to the breakdown of Bretton woods system?

Ans.-----

7.5 International Monetary Fund (IMF)

An integral part of the Bretton Woods system was the establishment of the IMF, which still administers the international monetary system. Member nations subscribe by lending their currencies to the IMF. The IMF then re-lends these funds to help countries in balance-of-payments difficulties.

8.5.1 Objectives of IMF

The Articles I of Agreement of the International Monetary lay out the six objectives for which the IMF was set up. These objectives are as follows:

- a) To promote international monetary cooperation.
- b) To facilitate the expansion and balanced growth of international trade.
- c) To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
- d) To assist in the establishment of a multilateral system of payments and in the elimination of foreign exchange restrictions that hamper the growth of world trade.
- e) To give confidence to members by making the general resources of the Fund temporarily available to them under adequate safeguards
- f) To shorten the duration and lessen the degree of disequilibrium in the international balance of payments of members.

7.5.2 Organisation and Financial Structure of the Fund

Organisation Structure:

The IMF is run by a Board of Governors, an Executive Board and an international staff. Every member country delegates a representative (which is usually heads of central banks or ministers of finance) to the Board of Governor. It meets once a year and takes decision on fundamental matters such as electing new members or changing quotas. The Executive Board is entrusted to the management of day-to-day policy decisions. The Board comprises 24 executive directors who supervise the implementation of policies set by the member governments through the Board of Governors. The IMF is headed by the Managing Director who is elected by the Executive Board for a five-year term of office.

Financial Structure:

The capital or the resources of the Fund come from two sources:

- (i) Subscription or quota of the member nations, and
- (ii) Borrowings.

Each member country is required to subscribe an amount equivalent to its quota. It is the quota on which payment obligations, credit facilities, and voting right of members are determined. As soon as a country joins the Fund, it is assigned a quota which is expressed in Special Drawing Rights (SDRs). At the time of formation of the IMF, the quota of each member was

made up of 25 per cent. in gold or 10 per cent of its net official holdings of gold and US dollars (whichever was less). Now this has been revised. The capital subscriptions or quota is now made up of 25 per cent of its quota in SDRs or widely accepted currencies (such as the US dollar, euro, the yen or the pound sterling) instead of gold and 75 per cent in country's own currency. The size of the Fund equals the sum of the subscriptions of members. The Fund is authorised to borrow in special circumstances if its own resources prove to be insufficient. It sells gold to member countries to replenish currency holdings. It is entitled to borrow even from international capital market. Though the Articles of Agreement permit the Fund to borrow from the private capital market, till date no such use has been made by the IMF.

7.5.3 Functions of IMF

IMF has three principal functions (1) surveillance of financial and monetary conditions in its member countries and of the world economy, (2) financial assistance to help countries overcome major balance of payments problems, and (3) technical assistance and advisory services to member countries. These functions are discussed in detail as follows:

- 1) Surveillance:** IMF is exercising surveillance to ensure proper working and balance in the international monetary system, i.e., by avoiding manipulation in the exchange rates and by adopting intervention policy to counter short-term movements in the exchange value of the currency. There are two main components of surveillance: country surveillance and multilateral surveillance. Through country surveillance, the IMF visits the country once a year to assess its economic policies and where they are headed. It reports its findings in the Public Information Notice. Multilateral surveillance is when the IMF surveys global and regional economic trends. It reports these twice a year in the World Economic Outlook and Global Financial Stability Report. These two reports point out problems and potential risks to the world economy and financial markets. This is how IMF watches the economics and economic policies of its members.
- 2) Financial assistance:** The Fund is helping the member countries in eliminating or minimizing the short-period disequilibrium of balance of payments either by selling or lending foreign currencies to the members. The Fund also helps its members towards removing the long period disequilibrium in their balance of payments. In case of fundamental changes in the economies of its members, the Fund can advise its members to change the par values of its currencies. The other financial assistance will be discussed in detail in the subsequent subsection under the heading lending operations.

3) Technical assistance and advisory services to member countries: Technical assistance helps countries strengthen their economic policy, tax policy, monetary policy, exchange rate system, and financial system stability. The IMF's technical assistance and advisory programs have become increasingly important in recent years. Some analysts now believe that this is IMF's most important function. IMF technical assistance operations focus primarily on its core areas of expertise i.e. financial and macroeconomic policy management. The IMF's Technical Assistance department plays a key role in the implementation of the IMF's development-oriented strategy. There has been increased demand for assistance in areas such as government transparency, compliance with international standards and codes, strengthening domestic financial systems and poverty reduction. Demand has been especially great in the areas of fiscal policy and administration of technical assistance. In addition to helping countries design appropriate fiscal policies, the Fund also help them build the institutions needed to support and implement them.

7.5.4 Working, Lending Facility and Special Drawing Rights (SDRs)

Working of IMF

The IMF serves as a global hub for knowledge on economic and financial issues. It shares this knowledge with government institutions such as finance ministries and central banks in different forms. This ranges from support on a policy issue to holistic capacity development. This hands-on advice, peer-to-peer learning, and training are delivered to the countries in various ways. IMF staff offer expert advice to country officials both in country and remotely from headquarters. Such visits are focused on targeted issues and initiated at the request of the member country.

A global network of regional capacity development centres (RCDCs) and training programs help to implement the IMF's mandate to deliver capacity development services to its member countries. IMF also provides in-person and online training for government officials on targeted macroeconomic and financial topics. Online training is also provided to the general public through massive open online courses in partnership with edX.

IMF also provides periodic assessments of global prospects in World Economic Outlook, of financial markets in its Global Financial Stability Report, of public finance developments in its Fiscal Monitor, and of external positions of the largest economies in its External Sector Report.

Lending Facility

When a country requests a loan, the IMF give the country the money needed to rebuild or stabilize its currency and re-establish economic growth. The IMF offers member countries a variety of loans tailored to meet specific uses.

- 1) **Poverty Reduction and Growth Trust (PRGT) Loans:** These are low-interest loans for low-income countries to reduce poverty and improve growth.
- 2) **Exogenous Shocks Facility (ESF) Loans:** These are loans to low-income countries that provide lending for negative economic events that are outside the control of the government. These events could include commodity price changes, natural disasters, and wars that can interrupt trade.
- 3) **Stand-By Arrangement (SBA) Loans:** Countries with short-term balance of payment issues apply for stand-by arrangement (SBA) loans from the IMF. SBA loans are meant to help countries emerge from an economic crisis.
- 4) **Extended Fund Facility (EFF) Loans:** Countries with long-term balance of payment issues that require economic reforms apply for extended fund facility loans.
- 5) **Supplemental Reserve Facility (SRF):** The IMF provides supplemental reserve facility (SRF) assistance to meet short-term financing on a large scale. An example of this was when the loss of investor confidence during the Asian financial crisis of 1997 caused enormous outflows of money and led to massive IMF financing.
- 6) **Emergency Assistance Loans:** These are designed to provide assistance to countries that have had a natural disaster or are emerging from war.

Special Drawing Rights (SDRs)

The IMF issues an international reserve asset known as (SDRs) that can supplement the official reserves of member countries. The SDR was created as a supplementary international reserve asset in the context of the Bretton Woods fixed exchange rate system. The SDR serves as the unit of account of the IMF. The SDR value in terms of the U.S. dollar is determined daily based on the spot exchange rates observed at around noon London time, and is posted on the IMF website.

The SDR was initially defined as equivalent to 0.888671 grams of fine gold—which, at the time, was also equivalent to one U.S. dollar. After the collapse of the Bretton Woods system, the SDR was redefined as a basket of currencies. Presently, the value of the SDR is based on a basket of five currencies—the U.S. dollar, the euro, the Chinese renminbi, the Japanese yen, and

the British pound sterling. The SDR basket is reviewed every five years, or earlier if warranted, to ensure that the basket

A general allocation of SDRs requires Board of Governors approval by an 85 per cent majority of the total voting power. Once agreed, the allocation is distributed to member countries in proportion to their quota shares at the Fund. Total global allocations are currently (as on August 3, 2021) about 660.7 billion (equivalent to about US\$943 billion). This includes the largest-ever allocation of about SDR 456 billion approved on August 2, 2021. This largest SDR allocation in the history of the IMF (effective on August 23, 2021) addresses the long-term global need for reserves for addressing the impact of the COVID-19 pandemic.

7.6 International Liquidity

The term ‘International Liquidity’ in its simplest form, comprises of all reserves that are available to the monetary authorities of different countries for meeting their international disbursement. The various components of International Liquidity are:

- a) Gold held by Central Bank (gold held by private individual is not included)
- b) Foreign currencies held by the central bank
- c) Borrowing facilities available from IMF under different schemes
- d) Credit facilities available under swap and other related credit agreements
- e) Special drawing rights (SDR)
- f) A country borrowing capacity in the international money market

In the literature on international liquidity, distinction is made between owned and borrowed reserves. Foreign exchange surplus, after meeting all current and capital account obligations of the country with the rest of the world, are “owned” reserves. Similarly, the official gold stock of a country constitutes its owned reserves. Capital imports in the form of borrowings from abroad and direct investments by foreign countries constitute borrowed reserves. Both owned and borrowed reserves are the source of international liquidity.

Form the point of view of an individual country, the international liquidity has the demand and supply aspects. The demand for international liquidity arises out of demand for imported goods and services, capital outflows and unilateral transfers. The supply of liquidity concerns the sources of international liquidity. An excess of demand over supply causes depletion or shortage of international liquidity reserves. On the opposite, an excess of supply over demand would make addition to international liquidity reserves of a given country.

International liquidity has become a key focus of international policy debates over recent years. International liquidity and its drivers are of major importance for international financial stability, both in the build-up phase for vulnerabilities and when any resulting financial imbalances occur. With increasing financial integration, global financial conditions have a growing impact on domestic economic conditions in each country, affecting international capital flows and the dynamics of credit, financial asset and property prices in all major economies. Shortages of global liquidity can have important implications for economic growth, as experienced in 2008–09.

7.6.1 Problems of International Liquidity

The problem of international liquidity is associated with the problem of international payments. These payments arise in connection with international trade in goods and services and also in connection with capital movements between one country and another. Broadly speaking, the problem of international liquidity has two aspects: quantitative and qualitative. The quantitative aspect of the problem relates to the adequacy of international liquidity. The qualitative aspect of the problem pertains to the nature and composition of international reserves for liquidity. A major source of worry in maintaining international economic relations is the quantitative aspect of the problem of international reserves. It is generally feared that in future there is likely to arise a shortage of international liquidity.

It is regarded that there is no guarantee that the present international monetary system will automatically provide an increase in the supply of international liquidity over the years to finance the expanding volume of international trade and payments. As such, the total quantity of international reserves under the present international monetary system is going to be extremely inadequate for the world's future demands. In its qualitative aspect, the problem is related to the use of the dollar and sterling as reserve components. The U.S. dollar and the pound sterling are the principal reserve currencies or "key currencies" because of their role as the major trading currencies for carrying out a large number of international trade and investment transactions.

The world community has, however, continued to face the severe strains of international liquidity aggravating the balance of payments deficits and internal economic problems such as unemployment, poverty and inflation. The main reasons for the inadequacy of international liquidity are as follows:

- 1) **Balance of Payments Deficits:** BOP deficits of the majority of countries in the world are on the increase. In particular, after globalisation, these countries have been facing persistent BOP deficits. Too much dependence on exports has exposed these economies to international fluctuations in the demand for their products. On the other hand, in order to develop, their import requirements have been on the increase. As a result, they are faced with foreign exchange constraints. This has necessitated larger inflow of aid and foreign investment. Consequently, debt serving and interest on debt have risen, leading to decline in the net inflow of foreign capital.
- 2) **Redistribution of International Reserves:** The international reserves have been redistributed in favour of more advanced countries. A large majority of the member countries of the IMF and other international financial institutions have received inadequate financial resources to meet their liquidity requirements. The distribution of international reserves is biased and favours the developed countries. It is primarily based on the quotas in the IMF. Whenever the IMF quotas are revised, the larger share goes to the developed countries.
- 3) **Attitude of the Advanced Countries:** The problem of shortage of international liquidity has persisted on account of the attitude adopted by the advanced countries. It is important that they should reduce their BOP surpluses. However, the majority of the advanced countries have shown little interest in adopting policies for getting rid of their surpluses and helping in increasing the international liquidity. They put forward the argument that the international liquidity crisis is not on account of their accumulated payments surpluses. They allege that international liquidity has arisen due to the mismanagement of the economies, extravagant public spending and unproductive expenditure.
- 4) **Limited Access to Markets of Advanced Nations:** The basic cause of mounting BOP deficits and inadequacy of international liquidity is that the LDC's have very little access to the markets of the advanced countries. On the one hand, the advanced countries advocate free trade but, on the other hand, they have maintained a regime of tariffs and other import restrictions upon the exports of the LDC's. The formation of regional economic grouping among the advanced countries of Europe and North America and consequent imposition of a high common external tariff not only exposes the double standards on the part of advanced countries on the issue of free trade, but also amounts to denying the access to the LDC's of their markets. In such a situation, the latter cannot easily resolve their problems of payments deficits, mounting debt burden, low development and shortage of international liquidity.

In short, we can say that the problem of international liquidity is concerned with the imbalances in the demand for and supply of international liquidity. International liquidity shortage leads to recession in the world economy, whereas international liquidity surplus tends to have an inflationary impact on international economy. Solution to this problem relates to attempts at balancing supply and demand for international liquidity. If the national currencies of all the countries become fully convertible, and freely acceptable in international payments, no shortage of international liquidity can arise. Also, if all the deficit countries are allowed to have an unlimited and unconditional access to borrowing and trading, there would have been no problem of international liquidity.

7.6.2 IMF and International Liquidity

The International Monetary Fund (IMF) has been established with an objective of extending short-term financial assistance to its members to overcome the balance of payments difficulties as well as emergency situations. It contributes to the international liquidity in two ways by providing conditional liquidity and by providing unconditional liquidity.

- 1) **Conditional Liquidity:** The IMF provides conditional liquidity under its various lending schemes. The credit provided to the members is generally subject to certain conditions. Most of the IMF loans require an adjustment programme to be undertaken by the member country for improving its balance of payments position. Moreover, obtaining funds from the IMF under agreed conditions increases the member's access to international capital market. Important credit facilities provided by the IMF are (a) basic credit facility, (b) extended fund facility, (c) compensatory financing facility, (d) buffer stock facility, (e) supplementary financing facility, (f) trust fund, (g) structural adjustment facility, etc. In order to make the resources easily and more adequately available, the IMF has been introducing various procedure changes from time to time
- 2) **Unconditional Liquidity:** The supply of unconditional liquidity takes the form of reserve assets that can be used for balance of payments financing. The IMF provides unconditional liquidity through the allocation of Special Drawing Rights (SDRs), and also in the form of reserve positions in the Fund. Member countries can use their holdings of SDRs and reserve positions in the Fund to finance their balance of payments deficits without having to enter into policy commitments with the Fund.

7.7 Present Managed Floating Exchange Rate System

A managed float exchange rate system is an international financial arrangement, whereby central banks intervene only periodically to support a country's currency and to stabilize volatile fluctuations in foreign exchange rates. In other words, Managed Float is a floating exchange rate in which a government intervenes to change the direction of the float by buying or selling currencies. A managed float is sometimes called a "dirty float" because exchange rates are free to fluctuate, but central banks are committed to intervening under conditions of perceived instability.

A floating exchange rate is determined in foreign exchange markets depending on demand and supply, and it generally fluctuates constantly. The managed float system works when the financial authority of a country allows the currency to float (allowing its exchange rate to move up or down) depending on supply and demand in the foreign exchange market but still intervenes in the market to make sure the exchange rate does not move beyond assumed official limits. This is because big fluctuations in the external value of a currency can increase investor risk and perhaps damage business confidence.

The central bank can bring about depreciation in currency to improve the balance of trade or improve the current account by making exports more prices competitive. To reduce the prices of imported capital and technology or essential inputs, the central bank can bring about an appreciation of the currency to enhance long run growth potential.

7.7.1 Key Features of Managed Floating Exchange Rate System

Managed floating exchange rate regime has three main features:

- a) First, floating of exchange rate is based on market supply and demand so that the exchange rate plays a role as a price signal.
- b) Second, the range of floating adjustment is based on trade and current account balances to reflect the "managed floating" nature.
- c) Third, the exchange rate is determined with reference to a basket of currencies, rather than the bilateral exchange rate.

These features are discussed in detail as follows;

- 1) Based on Market Supply and Demand Model:** In theory and practice, resource allocation is efficient when the supply and demand is broadly in balance. When the supply and demand is not in balance, optimization of resource allocation is not possible. When total exports are persistently smaller than total imports, resources are not adequately channelled to the export sector, and it would result in shortage of foreign exchange and

consequently import demand for consumer and capital goods cannot be met. When total imports are persistently smaller than total exports, resources are overly concentrated in the export sector and subsequently the foreign exchange earned through export cannot be absorbed by import and can only be invested overseas. If investment is concentrated in low-yield sectors overseas, the resource is not allocated efficiently.

- 2) **Range of floating adjustment is based on trade and current account balances:** The equilibrium exchange rate determination theory treats exchange rate as a function of current account balance or trade balance. If the function has a linear relationship with current account balance, it could be adjusted accordingly. However, the relationship is much likely to be non-linear, which means exchange rate floating needs to be progressed in a gradual and proper manner and should be managed in line with the state of the economy and BOP Position.
- 3) **Exchange rate is determined with reference to a basket of currencies:** Theoretically, the best indicator to measure the international relative price of tradable is real effective exchange rate, i.e., the exchange rate measured by a basket of currencies of major trading partners. The exchange rate regime with reference to a basket of currencies helps in adjusting exports and imports, current account, and balance of payment in a more effective manner. The real effective exchange rate (REER) is the weighted average of a country's currency in relation to an index or basket of other major currencies. The weights are determined by comparing the relative trade balance of a country's currency against that of each country in the index. An increase in a nation's REER is an indication that its exports are becoming more expensive and its imports are becoming cheaper. The reference of a basket of currencies is reasonable in theory. In practice, however, the nominal effective exchange rate, which is not inflation-adjusted, is more frequently used.

7.7.2 Problems with Present Exchange Rate Arrangement

The Present Exchange Rate Arrangements i.e., a system of managed floating exchange rate has been practiced by many countries at present. The central banks have been trying to control fluctuations of exchange rates around some narrow band. However, the demand and supply forces are mainly determining the exchange rate. Managed floating exchange rates are also known as a dirty float because the government is trying to intervene so that exchange rate volatility becomes more moderate.

However, the current international monetary system is not functioning too well. Exchange rate volatility, financial crises, persistent global imbalances, accumulation of US dollar debt abroad

are undermining the confidence of the US dollar. The use of the US dollar as the most dominant international currency creates tension between national and global monetary policy making. The major problems of present exchange arrangement are discussed in detail as under:

1. Excessive Fluctuations in Exchange Rates and Large Disequilibrium in Balance of Payments:

- a. Market forces may fail to determine the appropriate exchange rate and hence managed floating exchange rate regime may not provide the desired results and may also lead to misallocation of resources.
- b. Volatile exchange rate introduces considerable uncertainty in export and import prices and consequently to economic development.
- c. It is expected that a wildly fluctuating exchange rate at the mercy of national and international currency speculators would hamper the trade flow and investments.
- d. Countries may become involved in rounds of competitive devaluations in order to capture a competitive advantage equivalent because of interest rate policies and the movement of short-term capital.
- e. Different governments try to set their exchange rates at levels that are inconsistent with each other. A depreciating currency will help a country's exporting sector. However, the cost of imports will invariably rise leading to cost push inflationary pressures.

2. Incompetent in Avoiding Global Financial Crises:

Another problem of the present International Monetary System is that it is incompetent in avoiding global financial crises. There have been four serious financial crises over the past few decades. Mexico in the years 1994 and 1995 has suffered from major economic and financial downfall. These crises came to an end in December 1996. Similarly, in the year 1997, Southeast Asia had suffered from a major economic breakdown. Russia and Brazil also had to go through serious financial crises in the year 1998 and 1999 respectively. In 2007-2009, the Global Economic Crisis questioned the current International Financial Architecture. There have been many such major financial breakdowns over the past few years, which the International Financial Architecture was unable to avoid.

Present exchange arrangements were also unable to prevent the international financial crises that occurred in the 20th centuries. The 2007–2009 global financial crises are considered as the worst global economic crisis since the Great Depression of 1930s. In 2014, Falling commodity prices and the annexation of Crimea and Ukraine led to the collapse of Russia's economy.

More recently, the rapid spread of COVID-19 in 2020 has brought a profound impact on the global economy and forced countries around the world to adopt different intervention measures. The economic response policies implemented by governments during the pandemic, including income support, fiscal measures, and international aid, have a restraining effect on exchange rate volatility.

Check Your Progress -II

Q 1: Describe the key features of Managed Floating Exchange Rate System.

Ans.-----

Q 2: What are the various components of International Liquidity?

Ans.-----

7.7.3 Proposals for International Monetary Reforms

A well-functioning international monetary system should ensure exchange rate stability, facilitate current account adjustment, provide sufficient international liquidity for the world economy, and promote international trade and investment. In short, it should provide an international framework for sound national economic policymaking. In order to reduce the instability of exchange rate and avoid large exchange rate misalignments, alternative proposals have been suggested by various economists from time to time. These are discussed as under:

- 1. Establishment of Target Zones:** Williamson called for the establishment of target zones in 1986. According to him, the leading industrial nations should estimate the equilibrium rate of exchange and agree on the permitted fluctuations. The equilibrium rate of exchange may be determined by the forces of demand and supply. A band of fluctuations 10 per cent above and below the equilibrium rate of exchange may be allowed. The exchange rate may be prevented from moving outside the target zones by official intervention in foreign exchange markets. The leading industrial nations seem to have agreed upon some such target or reference zones between the dollar and the yen and between dollar and German mark at the Louvre agreement in February 1987. But the boundaries of these target zones seem to be much smaller than 10 percent as advocated by Williamson. The proposal of target zones as, however, been criticised on the ground that it embodies the worst characteristics of fixed and flexible exchange systems.

- 2. Policy Coordination:** In 1984 another proposal was advanced by Mc Kinnon concerned with the policy co-ordination among the leading countries. As per this proposal, the United States, Germany and Japan should fix the exchange rate among their currencies at their equilibrium level determined by the purchasing power parity. Then they would co-ordinate their monetary policies for keeping the exchange rate fixed. For instance, a tendency for dollar to depreciate vis-a-vis yen would signal that the United States should reduce the growth rate of its money supply, while Japan should increase it. The net over-all change in the money supply in these three countries should take place at a rate consistent with the non-inflationary expansion of the world economy.
- 3. Objective Indicators:** The objective indicators include growth of GNP, inflation-unemployment mix, balance of trade, fiscal balance, growth of money supply and international reserves. The variations in the magnitude of these indicators will create the necessity of adopting restrictive or expansionary economic policies. The IMF Interim Committee in 1986 made a proposal based upon the objective indicators of economic performance for signalling the nature of co-ordinated macroeconomic policies that the countries should follow under the supervision of the IMF so that the world economy grows along a sustainable non-inflationary path.
- 4. International Capital Flows:** Another proposal emphasises upon restricting international speculative capital flows. It recognises that the instability in exchange rates and global imbalances in trade and payments are caused by huge international capital flows. In this regard, Tobin had suggested in 1978 the imposition of a transactions tax which should become progressively higher, the shorter the duration of transaction.

According to Dornbusch and Frankel, the financial capital flows can be restrained through dual exchange rates i.e. less flexible one for trade transactions and a more flexible one for purely financial transactions not related to international trade and investments. Tobin and Dornbusch believed that smooth working of the international financial system can be achieved by restricting international hot money flows through capital market segmentation. Such proposals are, however attacked by the critics on the ground that it is next to impossible to separate non-productive or speculative capital flows from productive flows related to international trade and investments.
- 5. Sacrifice of Autonomy:** Still another proposal for reforming the international monetary system was put forward by Cooper in 1985. According to him, international economic cooperation and policy co-ordination required the sacrifice of autonomy in economic decision-making by the individual countries. If the leading industrial nations, give up some

of their autonomy in the years to come, there can be hope for more efficient and smooth working of present international monetary system.

6. Maintaining the Status Quo of Dollar-Led International Monetary System: Although there are lot of weaknesses in the current international system, however, the dominant status of dollar is irreplaceable. The most important thing for the international monetary system is that the U.S and the Eurozone return to a sustainable and fiscally-sound growth path. Over a certain period of time, this will allow international interest rates to return to normal levels, alleviate fears of carry trades and hot-money inflows in emerging markets, and restore confidence in the main reserve currencies According to Nakao (2010), neither euro and yen, and SDRs become the global reserve currency or denominated currency. After all, the direction of reforming the IMS should be the stabilization of the current system by strengthening US dollar as anchor currency.

To sum up, various proposals to reform the international monetary system are closely connected. But the approach of different nations towards these proposals lacks the mutual consensus. The recent observed trends indicate that advanced countries have not only been working at the cross-purposes, but, they have also shown no interest to accommodate the trade and financial interests of the less-developed world. In these circumstances, the instability and recurring crises in the international monetary system are not expected to be tackled effectively.

Check Your Progress-III

Q1. Explain financial structure of funds.

Ans.-----

Q2. Define SDRs

Ans.-----

7.8 Summary

International monetary system is a set of arrangements, rules, practices and institutions under which payments are made and received for international transactions across national boundaries. International monetary system motivates and encourages the nations to participate in the international trade to improve their BOP and minimize the trade deficit. There have been

four stages in the evolution of the international monetary system: Gold Standard (1880-1914), Inter-war period (1918-1939), Bretton Woods's system (1947-1971) and Present International Monetary system (1972- Present). Under the gold standard, the countries accepted the major assets gold in settlement of international debt. The central bank of the country was always ready to buy and sell gold at the specified price. In the Inter-war period, Britain was replaced by the United States of America as the dominant financial powerhouse across the globe. The Bretton Woods system was a gold-exchange standard. The United States was to maintain the price of gold fixed at \$35 per ounce and be ready to exchange on demand dollars for gold at that price without restrictions. This system was in the nature of an adjustable peg system combining general exchange rate stability with some flexibility. An integral part of the Bretton Woods system was the establishment of the IMF, which still administers the international monetary system. Member nations subscribe by lending their currencies to the IMF. The IMF then re-lends these funds to help countries in balance-of-payments difficulties. The IMF serves as a global hub for knowledge on economic and financial issues. IMF has three principal functions (1) surveillance (2) financial assistance (3) technical assistance. The IMF issues an international reserve asset known as (SDRs) that can supplement the official reserves of member countries. The SDR serves as the unit of account of the IMF. The SDR value in terms of the U.S. dollar is determined daily based on the spot exchange rates observed at around noon London time, and is posted on the IMF website.

7.9 Questions for Practices

A. Short Answer Type Questions

- Q1. Write a note on the Inter War Period.
- Q2. Write the different stages of the evolution of International Monetary System.
- Q3. Examine the lending facility of IMF.
- Q4. What do you understand by the Price-Specie-Flow Mechanism under Gold Standard?
- Q5. Describe the role of international monetary system in the globalisation era.

B. Long Answer Type Questions

- Q1. Explain various functions and working of International Monetary Fund.
- Q2. Write a detailed note on the Bretton wood system.
- Q3. Point out the main features of Gold Standard. What factors caused the collapse of Gold Standard?

Q4. What are the objectives of IMF? Also describe the organisational and financial structure of IMF.

7.10 Suggested Readings

- Salvatore, Dominick (2019) Introduction to International Economics. 11th Edition, Wiley, pp 655-675
- Obstfeld, Maurice, and Paul R. Krugman (2003) International Economics: Theory and Policy. Pearson Education, Inc, pp 496-526
- Sodersten, Bo, and Geoffrey Reed (1994) International Economics. New York: St. Martin's Press. Pp 659-657
- Theo Eicher, John H. Mutti, Michelle H. Turnovsky. International Economics (2009), 7th Edition, Routledge, pp 626-657
- Official Website of International Monetary Fund: www.imf.org

MASTER OF ARTS (ECONOMICS)

SEMESTER I

INTERNATIONAL ECONOMICS

UNIT 8: NEW INTERNATIONAL ECONOMIC ORDER

STRUCTURE

8.0 Learning Objectives

8.1 Introduction

8.2 Common Currency: Meaning

8.2.1 Monetary Union and Monetary Authority

8.3 Conditions to Make a Monetary Union

8.3.1 Optimal Currency Zone

8.3.2 Advantages and Disadvantages of Monetary Unions

8.4 Common Market

8.4.1 Trading Blocs

8.4.2 Free Trade Area and Custom Union

8.4.3 Advantages and Disadvantages of Regional Trade Agreements (RTAs)

8.5 Evolution of the European Currency Union

8.6 Advantages and Disadvantages of a Common Currency

8.7 Common Currency and Regional Economic Cooperation

8.8 Financial Globalisation

8.9. Financial Globalisation and the Crisis

8.9.1 Financial Globalisation and Sources of the Crisis

8.9.2 International Capital Movements and the Financial Crisis

8.9.3 Financial Crisis and Banks

8.9.4 Valuation Channel

8.10 Summary

8.11 Questions for Practice

8.12 Suggested Readings

8.0 Learning Objectives

After reading this unit, learner will be able to:

- Know the meaning of common currency
- Define common market
- Examine the study of European union
- Describe the advantages and disadvantages of common currency and common market
- Define financial globalisation
- Evaluate financial crisis

8.1 Introduction

In the past, countries have entered into currency unions to facilitate trade and strengthen their economies and also to unify previously divided states. In the 19th century, Germany's former customs union helped to unify the disparate states of the German Confederation with the aim of increasing trade. More states joined beginning in 1818, sparking a series of acts to standardize the value of coins transacted in the area. The system was a success and led to the political unification of Germany in 1871, followed by the creation of the Reichsbank in 1876 and the Reichsmark as the national currency.

In 1865, France spearheaded the Latin Monetary Union, which encompassed France, Belgium, Greece, Italy, and Switzerland. Gold and silver coins were standardized and made legal tender, and freely exchanged across borders to increase trade. The currency union was successful and other countries joined. However, it was formally disbanded in 1927 amid political and economic turmoil during the early part of the century. Other historical currency unions include the Scandinavian Monetary Union of the 1870s based on a common gold currency.

8.2 Common Currency: Meaning

Three sets of factors, according to Barro, are likely to encourage the initiation of currency unions across the globe in the future:

- (i) the increasing number of countries in the world

(ii) globalization

(iii) the diminishing role of independent national monetary policies, especially for small countries.

For many of the growing number of smaller countries, the costs of maintaining separate currencies and floating exchange rates are likely to be very high. For them, therefore, the net benefits from joining a monetary union (or simply using another country's currency) are likely to be significant (Barro 2001). This could encourage the formation of an increasing number of currency unions over time. The increased pace of globalization (including the spread of trade in goods and services and financial transactions and the heightened diffusion of technology) is also likely to encourage the formation of currency unions. In an increasingly globalizing world, there is likely to be greater synchronization of business cycles across countries, and hence the net benefits of having fewer currencies to conduct cross-border business are likely to be larger. Moreover, as the world gets more integrated, the volume of transactions involving citizens of different countries will increase. As international transactions become a larger share of total global transactions, the attractiveness of common currencies relative to a multitude of sovereign currencies is likely to increase. The benefit that economists and central bankers attribute to national monetary policies is also diminishing. There is growing scepticism about the usefulness of independent monetary policies, especially to smaller developing economies, for counter-cyclical stabilization purposes. All these factors have the potential to increase political support for monetary and economic integration across countries. Overall, therefore, events may become more favourable to the formation of currency unions.

A group of independent countries that share a single currency. That is, these countries, while maintaining sovereignty on economic policy, taxes, and similar issues, have transferred responsibility for a monetary policy to a central bank shared by participating members. The most famous monetary union is the Eurozone, though another example is the West African Monetary Union. A monetary union is also called a currency union.

There are more than 20 official currency unions, the largest of which is the Euro, which is used by 19 of the 28 members of the EU. Another is the CFA franc, backed by the French treasury and pegged to the euro, which is used in 14 Central and West African countries in addition to Comoros. The Eastern Caribbean Dollar is the official currency for Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.

8.2.1 Monetary (or Currency) Union and Monetary Authority

A monetary union exists when two or more countries share the same currency. The most important example is the Eurozone. 19 members of the EU (out of 28) now use the Euro. Sharing a single currency is seen by many as a necessary measure to complete a single market between member countries, for the following reasons:

- 1) **Elimination of Exchange Rate Costs and Risks:** A British firm buying goods from Germany has to change Pounds into Euros, which involves a commission payment to a bank, unlike a French firm that already has a Euro bank account. A British firm also faces the risk of a change in the value of the pound against the Euro when exporting or importing to a Eurozone country. A fall in the value of the pound makes imports more expensive, and a rise in its value may make British goods less competitive in Europe. Countries in the Eurozone don't face these risks when trading with each other. Exchange rate costs and risks are a kind of trade barrier that impede movement towards a single market.
- 2) **Price Transparency:** A single currency improves the efficiency of a common market by making it easier for buyers and sellers to compare prices being charged in different countries. It makes it harder for multinationals to operate price discrimination (charging different prices in different countries) as all prices are in the same currency.

Monetary union requires a single monetary authority. In the Eurozone this is the European Central Bank (ECB). It performs the same functions for all the Eurozone countries as the Bank of England (B of E) does for the U.K. These functions are:

- 1) **Setting Interest Rates:** The ECB sets interest rates for the Eurozone much as the B of E does for the U.K. The ECB sets interest rates at the level it believes is needed to keep inflation under control (around 2%).
- 2) **Managing the Foreign Currency Reserves of the Eurozone:** The ECB can intervene in the foreign exchange markets by buying or selling other currencies to keep the euro exchange rate at what it thinks is a desirable level.
- 3) **Control of Issuing Notes and Coins:** The ECB oversees the issue of notes and coins in Eurozone countries, to prevent countries printing too much money, which would undermine the value of the euro and cause inflation.
- 4) **Supervision of the Banking and Financial System:** The ECB oversees the banking system to prevent bank failures that would threaten the stability of the euro.

Check Your Progress- I

Q1. What do you mean by common currency?

Ans.-----

Q2. What is monetary union?

Ans.-----

8.3 Conditions to Make a Monetary Union

For a monetary union to operate without causing major problems for some or all of its members, the following conditions need to be met:

- 1) Fiscal Policy Rules:** There should be agreed limits on the level of government borrowing and the size of the national debts of member countries. In the Eurozone the limits are 3% and 60% of GDP respectively. This is known as the Growth and Stability Pact. It is necessary to ensure that governments do not borrow such large sums that result in higher interest rates and inflation across the Eurozone. Also, if some governments borrow more than they can repay, it can cause a crisis in the banking system (the banks are the main lenders to governments) and threaten economic stability and the value of the euro.
- 2) Free Movement of Labour and Capital Between Countries:** In a monetary union some countries are likely to be more competitive than others, resulting in lower growth, lower wages, spare capacity and unemployment. Outside of a monetary union, it is possible for a country to regain competitiveness by allowing its currency to depreciate. As this can't happen in a monetary union, free movement of labour and capital is needed to restore employment and growth. Workers from low wage countries will migrate to richer ones, whilst capital will flow in the opposite direction, as firms in high wage countries seek to lower costs by opening factories in low wage countries. This has happened to a considerable extent in the Eurozone. German and French car companies for instance now have factories in Eastern Europe, whilst workers from poorer countries have migrated to richer ones.
- 3) Transfers:** In the U.K. or USA there are large fiscal transfers from richer to poorer areas. This cushions poorer regions from the effects of asymmetric shocks, e.g., Northern Ireland receives much more public spending than it pays in taxes, which helps to support the economy that has experienced a big decline in its shipbuilding, engineering and textiles

industries. In the Eurozone there are only very limited fiscal transfers, because richer countries such as Germany and France are unwilling to see taxpayers' money used to support poorer countries like Greece. This can put the single currency zone under great strain and poorer countries may be better off leaving and having their own currency, which can fall to an exchange rate that makes them competitive.

- 4) Member Countries are at Same Stage of the Economic Cycle:** If some countries are in recession and others are in a boom, it will not be possible for a common monetary and fiscal policy to work for all members. For instance, in the period leading up to the financial crisis in 2007/8 Ireland had a rapidly growing economy whilst France and Germany had very slow growth. The ECB set interest rates at a low level, which was right for the big economies of France and Germany, but created a property boom and inflation in Ireland that eventually led to a very severe crash in house prices and a banking crisis.

8.3.1 Optimal Currency Zone

If all of the above conditions are met, plus the member countries all have similar levels of productivity, competitiveness then it can be described as an optimal currency zone, and it has a good chance of working and lasting. The Eurozone is probably not an optimal currency zone and Greece has already come very close to being forced out. It has a much weaker economy than northern European members, and struggles to be competitive inside the Eurozone. It is forced to undergo severe deflation (cuts in government spending and increases in tax) in order to drive down prices and regain competitiveness. This is called an internal devaluation, which has resulted in a severe recession and very high unemployment. Outside the zone it could have its own currency and let it fall in value.

8.3.2 Advantages and Disadvantages of Monetary Unions

Let's have a glimpse of advantages and disadvantages of monetary unions, firstly advantages then disadvantages.

Advantages:

- a) Elimination of exchange rate costs and risks
- b) Price transparency
- c) Price stability

Disadvantages:

- a) A member country cannot set its own interest rates or increase government borrowing above set limits, it loses a great deal of control over its own economy. Also, as it does not have its own currency, a member cannot devalue or revalue its currency when it seems desirable.
- b) Weaker economies in the Eurozone, such as Greece can be trapped in high unemployment, recession and balance of payments deficits. Outside the euro, Greece could devalue to regain competitiveness and be more free to set its own interest rates and government borrowing to stimulate the economy.
- c) The problems are faced by weaker economies could be addressed by fiscal transfers. But there is little appetite for this in the Eurozone. Richer countries like Germany are unwilling to hand over taxpayers' money to prop up poorer countries.
- d) However, it should be noted that leaving the euro would not be a painless way out of its problems. Inflation might increase and the country might struggle to find lenders to finance government borrowing.
- e) When a country joins a monetary union there will be one-off costs associated with converting to the new currency. These include changes to vending machines and cash dispensers, and changes to accounting systems.

Check Your Progress- II

Q1. Explain any two conditions to make a monetary union?

Ans. -----

Q2. What are the advantages of monetary union?

Ans. -----

8.4 Common (or Single) Market

A common market involves not just a custom union, which covers only the movement of physical goods. It also involves free trade in services, such as air travel, banking and insurance, accountancy, healthcare and education.

A common market also requires a common set of regulations and standards. The EU sets product standards, which all countries have to observe; for instance, vehicles have emission

limits, electrical goods have to meet safety standards. Without common standards, producers in one country could seek a competitive advantage by cutting costs by lowering safety or environmental standards.

A common market also involves the free movement of labour and capital amongst member countries for instance, in the European Union, workers are free to live and work in any member country. Firms in one member country are able to invest and operate in other member countries. For instance, German or French owned companies now run most of the electricity supply in the U.K. Equally, British firms have operations in the rest of the E.U. Tesco is now a major supermarket chain in several EU countries.

8.4.1 Trading Blocs

A trading bloc is a group of countries, which have preferential trading arrangements between members. This involves the partial or complete elimination of trade barriers.

Trading blocs are usually comprised of countries, which are geographically close to each other. They are, therefore known as regional trade agreements (RTA). Where there are just two parties to a trade agreement it is a bilateral trade agreement (BTA). This may comprise just two countries, such as China and the U.S.A, or it could be an agreement between a single country and a trading bloc, such as the CETA agreement between Canada and the European Union. A BTA could also comprise an agreement between two trading blocs, such as the European Economic Area (EEA), which is a trade agreement between the European Union (EU) and the small group of European countries that belong to the European Free Trade Agreement (EFTA).

The higher the level of integration, the closer the member countries are to operating as a single economy. For instance, the United Kingdom (England, Scotland, Wales and Northern Ireland) is a fully integrated single economy, with no trade barriers between members, free movement of people and capital, a common currency and a shared government which controls fiscal policy (taxes and public spending).

8.4.2 Free Trade Area (FTA) and Custom Union (CU)

There are no tariffs or quotas on trade in goods between member countries, but each country can set its own tariffs (a tax on imports) or quotas (a physical restriction on the quantity of imports) on goods from non-members. The most important example of a FTA is the North American Free Trade Agreement (NAFTA), comprising the USA, Canada and Mexico. MERCOSUR is another FTA in South America, which includes both Brazil and Argentina, the two biggest economies of the continent.

There are no tariffs on goods between members of a CU, but unlike a FTA, there is a common external tariff (CET), which means that all members impose the same level of tariffs on non-members. In some customs unions there may also collectively agreed quotas on imports from non-members. The European Union (EU), operates a CU. An example of its CET is the 10% tariff that all members impose on imports of cars from non-member countries. The point of the CU is that it prevents a non-member country from exporting cars into a member country with a low tariff and then shipping the cars into other member countries, which would have imposed a higher tariff.

8.4.3 Advantages and Disadvantages of Regional Trade Agreements (RTAs)

Advantages:

- a) **Trade Creation:** Where the reduction or elimination of a tariff or other trade barrier amongst members of an RTA results in member countries buying from each other things they previously produced for themselves this is called trade creation. It is an economic gain because it results in countries producing goods where they have comparative advantage and therefore lower opportunity cost.
- b) **Economies of Scale:** The elimination of trade barriers in an RTA gives producers in all countries access to a much bigger market. For instance, the EU has over 500 million consumers, compared to less than 70 million in the UK. Access to a larger market enables firms to produce on a larger scale and at lower unit cost. This is particularly true within a common market where cross border mergers and takeovers may result in fewer, but bigger firms. The more similar the tastes of consumers in member countries, the greater the opportunity for economies of scale, as firms can produce larger quantities of similar products.
- c) **Increased Competition and Choice:** Elimination of trade barriers gives consumers more choice as domestic firms now face increased competition from abroad. This should drive down prices, improve quality and lead to more innovation. Lower prices force firms to reduce costs, so increasing economic efficiency.

Disadvantages:

An RTA is likely to result in some trade diversion. This occurs when the RTA imposes tariffs or other trade barriers on exports from non-members, resulting in a trade distortion that favours member countries over non-members.

If the volume of trade creation exceeds the volume of trade diversion, then on balance the RTA will generate a net economic gain. This is more likely to occur if:

- a) The level of tariffs between countries joining was high before the RTA was formed
- b) The countries forming the RTA have a high volume of trade with each other
- c) The tariffs on non-members are low.

Check Your Progress-III

Q1. What do you mean by Common market?

Ans.-----

Q2. What is free trade area?

Ans.-----

8.5 Evolution of the European Currency Union

The history of the European currency union in its contemporary form begins with economic unification strategies pursued throughout the latter half of the 20th century. The Bretton Woods Agreement, adopted by Europe in 1944, focused on a fixed exchange rate policy to prevent the wild market speculations that caused the Great Depression. Other agreements reinforced European economic unity, such as the 1951 Treaty of Paris establishing the European Steel and Coal Community, which was later consolidated into the European Economic Community in 1957. However, the global economic hardships of the 1970s prevented further European economic integration until efforts were renewed in the late 1980s.

The eventual formation of the European Economic and Monetary Union was made possible by the signing of the 1992 Maastricht Treaty. Thus, the European Central Bank was created in 1998, with fixed conversion and exchange rates established between member states.

The Euro, the single currency of European Union (EU) came into existence on 1 January, 1999. In 2002, twelve member states of the European Union adopted the euro as a single European currency. As of 2020, nineteen countries use the euro for their currency.

8.6 Advantages and Disadvantages of a Common Currency

There are always points in favour and against a new concept, same way Common currency have as well. As European Union was the first union which had common currency so these points will also be for European currency.

Advantages:

- 1) **Eliminate Exchange Rate Fluctuation:** Businesses who operate within the European Currency area would no longer have to worry about exchange rate fluctuations. In the past, a firm of country German who traded with country Italy would have to worry about how much currency exchange for others. If payment were to be settled in the future, exchange rate fluctuation could either mean that the German firm pay more or less in term of Deutschmark for its Italian ordered placed in the past, say a month ago. Obviously, the German firm would not like to pay more in Deutschmark a month from now for the same order. To get over this problem, the firm could "hedge" the currency, that is, it would buy from the market for the delivery of a certain amount of Italian Lira, for a definite price in Deutschmark so "hedging costs" will solve the problem.
- 2) **Reduced Transaction Costs:**
 - a) A single currency would encourage tourisms in the single currency area. A tourist to the European countries in the Euro currency area would not have to worry about exchanging different currencies and loss in transaction costs (commission and time) as she travels.
 - b) This also encourage trade across borders in this single currency area. A Euro for example eliminate the extra accounting costs needed to keep tract of different and fluctuating exchange rates among trading partners within the single currency area. This reduced the cost of trading within the single currency area and thus stimulated more trade.
- 3) **Price Transparency:**
 - a) Within the single currency union, all prices would be quoted in the same currency and this facilitate easy price comparison. Firms no longer could mask their high prices in local national currencies. Consumers could now compare the Euro prices of say coffee powder in Belgium and the Netherlands with ease. This supposed to encourage more cross borders businesses.

- b) This would also encourage firms to improve their efficiencies and competitiveness in the single currency area.
- c) In a monetary union, there is a single central bank for all member countries. The ECB for instance sets interest rates for the entire Eurozone, at whatever level is required to keep inflation to around 2%. The strict rules on government borrowing also help to maintain low inflation for all members.

4) Facilitate Market Expansion: However, prices differences would still exist in a single currency area due to transportation costs, storage costs, and other operation costs. Lower transaction costs, elimination of exchange rate fluctuations, and price transparency will give incentive for firms to expand their markets within the single currency area. This would also generate investment and employment.

5) A More Stable Currency:

- a) The Euro would be more stable, that is, experiences less exchange rate fluctuations when compared to national currencies because the "value" of Euro reflects the average economic conditions of the whole Union and not that of a single national economy.
- b) Moreover, Euro would enjoy more credibility because it is used in a larger currency zone.
- c) The stability of Euro is also protected by the explicit stability-oriented monetary policy of European System of Central Banks (ESCB) that controls the value of Euro.

7) Prevent Competitive Devaluation by Nation States: A single currency would prevent the need for nation states in EU to devalue their national currencies to achieve competitive edge over other nation states. When one nation devalues its currency, it actually forces others to devalue their respective currencies as not to lose to unfair competition from the first nation that devalues its currency. This kind of devaluation is unhealthy to the economic health of all nation states in EU. In the European Monetary System (EMS), currencies of members are fixed within a band of 2.25 % of the central parity. This system is still in operation and the central parity is now the Euro. Devaluation by any member within this system would encourage speculators to attack the currency and/or other currencies within the system because the credibility of EMS depends on maintaining the band. This speculation would fulfil its own prophecy and the currency would devalue further.

8) Lower Interest Rates because Euro enjoy monetary stability of the European Central Bank (ECB) and the absence of premium due to elimination of exchange rate fluctuations.

Disadvantages:

1. Lost of Autonomous Monetary Policy:

- a) With the formation of Euro, the ECB and not national central banks that set the interest rate for the Euro area. ECB also controls the money supply within the Euro area. Thus, nation states within the Euro area loss the ability to employ monetary policy to fine-tune their respective national economies.
- b) The commitment to the stability pact of 1996 also put pressure on these nation states to pursue discretionary fiscal policy because budget deficit has to be kept within certain acceptable limit.

2. Risk of Uneven Development Within the Single Currency Area:

- a) Harmonization of national regulations and the introduction of a single currency like Euro in principle create a single market from the different national economies that join this currency union. In the word of ECB, the creation of Euro enhances the mobility of capital and financial services within the Euro area. Due to external economies of scales, businesses have the tendency to concentrate in certain areas. This means, some peripheral areas within the Euro area would lose out on employment and growth.
- b) Higher unemployment rate and lack of growth increase deflationary costs in these peripheral areas. These areas may experience more social problems (e.g. crimes, suicide, broken homes, etc.), loss of skills and loss of irretrievable economic potential.
- c) Although capital can move with ease within the Euro area, labour force does not enjoy the same mobility. There are still great cultural and language barriers to labour mobility within the Euro area.

3. Some economists argue that the Euro area is by no means a single economy. National economies maintain their distinct characteristics within the Euro area and possess their respective business cycles. Thus, the monetary policy of ECB cannot address the economic need of individual member states.

4. Easier access to loans with lower interest rates can leads to mounting public debt as seen in Ireland, Greece and Spain. For instance, when Greece was inducted into the Euro Zone, it started to enjoy the monetary credibility of ECB and began having access to loans with lower interest rates (as compared to its previously high interest rates due to higher risk premium) and access to larger pool of loanable fund from other banks within the Euro zone. This led to a lot of public infrastructure projects in the country and some with little profit prospect. Very similar story in Spain where cheap loans funded the building of

many airports. In 2011, there were 20 airports handled less than 100,000 passengers a year when a minimum 500,000 was needed to make an airport profitable (SCMP, Nov 2011). Public debt climbs and when the economy turned bad as in after the Subprime Crisis in the US, these countries were left with public debt that they could neither provide service nor repay back.

8.7 Common Currency and Regional Economic Co-operation

For Common Currency to succeed it depends upon the relations that the nation shares among each other. The major and long sustaining Common currency is Euro. If we take a closer look at European Union countries, they all are similar or homogenous. But the case is not the same in South Asia. South Asian nations differ in each and every aspect be it type of government, Government policies or the state of economy, So the implementation would be impossible. South Asia is home to two major world powerhouses i.e. India and China, then there are other economies like Pakistan, Sri Lanka, Bhutan and Nepal. Even though there is an economic co-operation organization SAARC, the relationship which these countries share is not warm. So, it may hamper the success of any such policy.

The other major problem would be the burden, which would fell upon the major players i.e. India and China. Their economy is itself in a very volatile stage they are facing their own challenges for e.g. India is already facing some major challenges such as current account deficits and poverty, FDI etc. Any such step could fatally blow them. The only benefit that it may yield is for those economies, which already are dependent on other foreign nations such as Pakistan, Afghanistan. This can be a boost for these economies, any such policy would be a bad sign for the whole region as well as the global scenario.

Having a common currency among nations reduces the ability to use monetary policy to address economic situations. It requires introducing common standards to homogenize the countries in order to reduce aberrant conditions amongst the group. Since the S. Asia nations are very volatile, heterogeneous, and undeveloped, it would be very difficult to implement such requirements.

Looking at the situation in the EU, it will be very unlikely for another shared currency to appear any time soon. The problem comes down to, is a country like Germany really ever going to be like Greece or Portugal? Differing economies need distinct currencies to fluctuate with changes in their individual economic conditions.

The pros would mostly be towards a weaker economy that has a weak currency with high volatility. A shared currency would likely bring stability to that one member. However, it would require the other members to essentially support the weaker members, and there's too much risk with those nations to band together as such. The idea of a common currency in south Asia would not be good. And one of the major reasons for this is that the South Asian nations are at different stages of development.

Some factors, which emphasise on why can't the South Asian nations have a common currency:

- A. Foreign Exchange Reserves:** The trouble about having a Single currency is that each participating country will have to contribute their foreign exchange reserve to protect that single currency. When that happens, South Asian nations with weaker currency can leverage on superior nations to take on cheaper and perhaps excessive loans. So, it would be non-beneficial for nations like Singapore which would cease up assisting weaker nations.
- B. Capital Mobility:** Having a single currency gets rid of the charges and inconvenience of currency conversion. This would make cross-border capital transfers extra convenient. The problem about capital mobility is that greed and fear have a tendency to move capital from poorly performing nation to higher performing nation. When capital is pulled out from a poorly performing nation, the problem gets worse and the motivation for more pull-out increases. This will create an irreversible spiral effect. This trouble is applicable due to the fact that the economies in South Asia are quite individualized and different. Hence, their overall performance is not going to move in lockstep at each point of time.

At present the divergence is pronounced and the idea of a common currency would find it difficult to succeed in South Asian countries but, perhaps a vibrant political, economic and regional cooperation at later point could give a thrust to the idea of common currency in South Asian nations.

Check Your Progress-IV

Q1. What is price transparency?

Ans.-----

Q2. Define European Currency union.

Ans.-----

8.8 Financial Globalisation

Globalisation means, opening up any economy to the world. Financial globalization, by definition, means the integration of financial markets of all countries of the world into one. This is only possible provided uniformity can be brought in the terms and conditions across the globe for raising international loans. The existence of different currencies with their different degrees of convertibility prevents uniformity in the terms and the conditions for loans. Consequently, not only does the existence of different currencies act as a barrier to such integration, but it disproportionately benefits the developed countries. This problem can only be eliminated provided a single worldwide currency is introduced. In its absence, financial globalization remains incomplete.

In a financial crisis, asset prices notice a sharp decline in value, consumers and businesses are unable to pay their debts, and financial entities face a shortage of liquidity. Often, a financial crisis is related to a bank run or panic during which investors sell their assets or withdraw money from their savings accounts because they believe that if they stay in a financial institution, the value of those assets will decrease.

Certain circumstances that could be described as a financial crisis include a global financial bubble bursting, a sovereign default, a stock market crash, or a currency crisis. Financial crises can be confined to banks or spread across a single economy, a region's economy, or worldwide economies.

There could be multiple causes for a financial crisis. Generally, when organizations or properties are overvalued, a crisis can arise and can be compounded by unreasonable or herd-like actions of investors. A rapid string of seals, for example, can result in lower asset prices, prompting individuals to dump their assets or make huge savings withdrawals when a bank failure is rumoured.

It's helpful to consider three aspects of the interplay between financial globalisation and the global financial crisis. To begin, did financial globalisation play a role in the onset of the global financial crisis? Second, how did financial globalisation affect the occurrence and spread of the crisis across countries once it had started? Third, how has financial globalisation influenced the national and international response to the crisis.

The sum of foreign assets and foreign liabilities (expressed as a ratio to GDP and termed the IFI ratio) is a useful measure of the de facto scale of cross-border financial integration. While financial globalisation also operates through the determination of asset prices and the responsiveness of international capital flows to shocks, the accumulated stocks of foreign assets and foreign liabilities reflect the history of past capital flows, plus the impact of valuation adjustments on previous positions. In addition, the level and composition of the international balance sheet matter for the exposure of individual countries to shocks to underlying asset prices and exchange rates. Finally, the net international investment position is a key state variable in many dynamic macroeconomic models.

8.9 Financial Globalisation and the Crisis

Let's divide our analysis into three parts:

- First, it is useful to ask whether financial globalisation was an important contributory factor in the origination of the global financial crisis.
- Second, conditional on the crisis occurring, we can address the mechanics of how financial globalisation affected the propagation and incidence of the crisis across countries, since some properties of financial globalisation may have amplified crisis shocks while other properties of financial globalisation may have provided a buffer that mitigated the impact of crisis shocks.
- Third, financial globalisation plausibly affected crisis management by policymakers through a variety of channels. In this section, we address each of these dimensions in turn.

8.9.1 Financial Globalisation and Sources of the Crisis

It is possible to identify two main channels by which financial globalisation contributed to the financial conditions that ultimately gave rise to the crisis.

- a) The participation of foreign investors (especially foreign banks) fuelled the accelerated growth of the asset-backed securities markets in the United States that were central in the original market panic in 2007-2008. European banks were major purchasers of asset-backed securities. In large part, these banks also obtained dollar funding in the US money markets. For this reason, the role of European banks in enabling the expansion of the US ABS markets did not jump out of the balance of payments data, although the implicit risk exposure of European parent banks grew in line with these US activities.
- b) Financial globalisation permitted rapid growth in the balance sheets of many banks. This took place at two levels. In relation to globally-active banks, the size and complexity of

these banks grew rapidly, making it difficult for national regulators to adequately police risk profiles. In addition, the capacity of local banks to expand lending by tapping international wholesale markets fuelled credit growth in a number of countries.

- c) The growing role of emerging markets in the world financial system may also have contributed to the build-up of weaknesses in credit markets. In particular, the general-equilibrium impact of the demand for low-risk debt assets from emerging-market official sources and the increased supply of equity opportunities in these countries may have added fuel to the securitisation boom.

In these ways, although there is no easy way to quantify its importance relative to other factors, financial globalisation plausibly contributed to the credit market vulnerabilities that were at the origin of the global financial crisis. In essence, financial globalisation magnified the impact of underlying distortions, such as inadequate regulation of credit markets and banks, by allowing the scaling-up of financial activities that might have faced capacity limits in autarkic financial systems. Going further, the variation in the cross-country incidence and propagation of the global crisis may be linked to differential levels and types of participation in cross-border financial trade. The rate of pre-crisis credit growth and the scale of pre-crisis current account deficits as important correlates of the scale of the decline in output and domestic expenditure during 2009. More generally, credit growth is an important leading indicator of subsequent financial crises. The scale of pre-crisis "excess" current account deficits has been associated with larger current account turnarounds over 2008-2010, which were mostly accomplished through reductions in domestic absorption. Financial globalisation plausibly contributed to rapid domestic credit growth by operating on both supply factors and demand factors. In relation to credit supply, domestic banks and the affiliates of foreign banks can raise various types of wholesale funding on international markets, with foreign investors also an important source of bank equity (both through portfolio equity and FDI). In relation to credit demand, capital inflows can contribute to a low-interest rate environment and improve the net worth of domestic borrowers by pushing up domestic asset prices. For a sample of European countries, international capital inflows were correlated with domestic credit growth during the 2003-2008 pre-crisis period.

In particular, a high level of net debt inflows was associated with more rapid domestic credit growth. This is consistent with the funding channel by which domestic banks were able to expand lending capacity by raising wholesale funding on international markets. On the deficit side, a larger pool of international investors made it easier to obtain external funding; on the

surplus side, the availability of foreign assets provided an alternative outlet for domestic savings.

Still, international financial integration surely increased the elasticity of capital flows to these underlying forces, both in relation to welfare-increasing factors (such as differences in demographics or productivity) and welfare-reducing factors (asset bubbles, over-borrowing distortions).

8.9.2 International Capital Movements and the Financial Crisis

To understand this, let's review three phenomena that occurred simultaneously after the 1970s.

Financial globalisation occurred in parallel with the rise of risky financial practices. At the same time as they were conquering the world, banks diversified their activities. To sustain growth and increase revenues, major banks expanded their activities to include all financial transactions, even the most speculative and risky ones.

To reduce the risk of stocks and bonds losing value (since securities are characterised by their volatility) and hedge against the risks inherent to financial speculation, banks created increasingly complex financial products and hedging instruments – the infamous derivatives.

It might be argued that the extraordinary interconnection of global banks and financial markets has aided the spread of hazardous products to institutions all over the world, hence exacerbating the crisis' geographic reach. The globalisation of banks and financial markets, on the other hand, is not the root of the problem. In fact, by multiplying funding alternatives in the real economy, it enabled several decades of global prosperity.

Aspects of financial globalisation that are more deeply at fault include inequalities in financial flows among great economic powers, in addition to risk contagion throughout the world banking systems. One of the most fundamental causes of the current crisis is this characteristic of financial globalisation. The sub-primes were merely a catalyst.

A closer look at international capital flows over the last several decades reveals that the plentiful liquidity that encouraged borrowing and hazardous banking practises was the outcome of a significant financial imbalance between emerging countries and major Western powers. As we've seen, the financial crisis was sparked by many US consumers' failure to restructure their debt, which reduced to zero the value of the associated mortgage-backed securities. For years, Western and particularly US households borrowed from banks to buy the expensive televisions, cars and homes synonymous with the American way of life, gambling on a constant

rise in real estate prices. Over a period of several years, extraordinarily low US interest rates aided this borrowing spree. This was part of the US Federal Reserve's (US central bank) and government's goal after the Internet bubble burst in 2001, which aimed to stimulate economic recovery through consumerism. Low interest rates, on the other hand, were a "mechanical" result of capital inflows into the US financial system from emerging nations. Thanks to the free movement of goods and money, these developing countries have been able to accumulate considerable (primarily dollar) currency reserves and invest their massive trade surpluses in Western economies for nearly two decades. Purchases of US Treasury bonds, which were thought to be particularly stable, were among these assets. This was accomplished through national investment funds (sovereign wealth funds) other surpluses were invested in large Western corporations' capital. As a result, there is enough of cash, in both US government coffers and Western financial markets, helped keep interest rates down, spurring Western households to borrow and accumulate debt beyond the capacities of the financial system.

8.9.3 Financial Crisis and Banks

At a general level, periods of enhanced global risk are associated with much smaller volumes of gross capital flows, as investors refrain from making international commitments and seek to pull back from accumulated positions that were built up during normal times but look outsized in a higher-risk environment. The most dramatic turnaround took place in relation to banking-sector flows, with foreign investors draining liquid liabilities (deposits, short-term wholesale funding) from stressed banks and domestic investors similarly repatriating foreign liquid assets. In both directions, banks were the main proximate investors in other banks, so the cross-border retrenchment was part of the general breakdown in inter-bank markets during the crisis. While individually rational, the collective exit from these markets contributed to the liquidity problems that defined the acute phase of the crisis. Given the lack of an adequate international regulatory framework, cross-border liquidity runs were more difficult to forestall than domestic liquidity runs.

In passing, it's worth mentioning that the withdrawal from international markets was not uniform, with the size of the capital flow reversal depending on the investor base. Banks were more inclined to pull back from areas that were more away from their home markets geographically. In more distant host nations, foreign investors were more inclined to cut portfolio equity and debt. During a crisis, some sorts of capital flows may be expected to act as a stabilising effect. For example, if domestic asset prices fall, bargain-hunting foreign investors could be a source of additional capital inflows via portfolio investments. While this

mechanism has partially operated during the crisis, it has less force in the context of a banking crisis, in view of the dullness of banking-sector balance sheets and the risks of subsequent regulatory interventions that could harm foreign investors in distressed domestic banks. For those countries suffering the most severe domestic crises, the opportunity to repatriate foreign assets might assist in domestic recovery. This has most force if there is a low (or even negative) correlation between foreign asset returns and domestic asset returns and if foreign assets are selected to provide diversification against domestic risks. However, the effectiveness of this mechanism is weaker during a global downturn in asset prices; it also is less helpful if foreign asset purchases acted to concentrate risk rather than to diversify risk. For instance, domestic speculators who had done well during the real estate boom in Ireland doubled down by making aggressive purchases in the property sector in other hot markets (Central and Eastern Europe, United Kingdom, United States). This pattern boosted levered returns during the global real estate boom but worsened the losses once the global property prices went into reverse. Turning to the role of "international balance sheet" effects, the rise in foreign holdings has magnified the quantitative importance of the valuation channel of external dynamics.

When all other factors are equal, capital gains on overseas assets and capital losses on foreign liabilities increase the net international investment position, and such gains in external wealth can act as a stabilising influence if they are obtained during times of crisis. However, it's easy to imagine instances where valuation losses occur during a crisis, which would be a destabilising pattern. In reality, the toxic pattern of exchange rate depreciation in concert with high levels of foreign-currency debt delivered negative valuation consequences that magnified crisis dynamics in typical emerging-market crises. Because of the quality concerns with foreign balance sheet data, conducting serious empirical study on value impacts is notoriously difficult. The recorded levels of foreign assets and liabilities, in particular, are subject to large-scale revisions due to changes in survey techniques and other measurement difficulties. As a result, accurately capturing the underlying valuation impacts in the data is difficult. Furthermore, identifying the "final" owner of diverse foreign assets is difficult, especially in countries with big international financial centres. For instance, the United Kingdom reported losses on holdings of US asset-backed securities during 2008. However, it turned out that a non-trivial proportion of these losses fell on the British affiliates of foreign-owned banks, so that its FDI liabilities also declined in this period as these foreign-owned banks announced losses on these positions.

8.9.4 Valuation Channel

In working out the role played by the valuation channel during the current crisis, a number of factors have to be taken into consideration.

- 1) During the crisis, the substantial global co-movement in stock prices meant that each country's overall net equity position was crucial in deciding the distribution of gains and losses. Because of the asymmetric positions of the two groups in terms of portfolio equity and FDI net holdings, the general pattern was that advanced economies lost and emerging markets benefited.
- 2) Foreign investors in loss-making asset-backed securities were predominantly from other advanced economies during the 2008-centered phase of the crisis. In contrast, investors from emerging markets (mainly official investors) held safe government-backed securities and so were not exposed to the meltdown in the ABS markets. Taking a longer and broader view of the crisis, the full attribution of losses on debt positions is incomplete, since there are typically long delays before losses on bank loan books are fully acknowledged. Over time, the scale of national and sectoral debt burdens in Europe makes it likely that external balance sheet adjustment will partly take place through further debt write downs.
- 3) Exchange rate movements have a primary role in determining valuation effects, since foreign assets are typically denominated in foreign currency and, especially for advanced economies, foreign liabilities typically have a large domestic-currency component. During 2008, the appreciation of the US dollar constituted a capital loss for the United States but a capital gain for the many emerging markets that maintained "long dollar" positions, largely consisting of high levels of dollar-denominated official reserves. In contrast, the sizeable depreciation of Sterling during 2008 provided a valuation gain to the United Kingdom, while Australia and New Zealand also enjoyed sizeable currency-related valuation gains during 2008. Within the euro area, both foreign assets and foreign liabilities are mainly denominated in euro, so that the exchange rate component of the valuation channel is weaker for these countries than for countries with independent exchange rates. The currencies of many emerging markets also depreciated during 2008. Historically, this would have been problematic due to high levels of foreign-currency debt. However, the accumulation of large foreign-currency reserves meant that domestic currency depreciation now was associated with a capital gain on foreign assets, while the shift from foreign-currency debt to equity-type instruments reduced the impact on the liability side of the international balance sheet.

- 4) Overall return on foreign assets and foreign liabilities is determined by international investment income flows as well as by capital gains and losses. The general decline in interest rates in the advanced economies during the crisis constituted a reduction in net international payments on the "short debt" positions of these economies. Since 2010, a partial exception has been the euro area periphery, to the extent that rising spreads on sovereign debt liabilities have offset the lower policy interest rates.

The expansion of mortgage loans – the renowned subprime loans – issued to low-income households precipitated the crisis in this scenario. Interest rates were initially quite low to entice clients, but after a few years, they considerably climbed. Subprime loans were particularly popular in the early 2000s, when the US economy was booming and traders were confident. These loans were given to about six million people in the United States, the majority of whom were low-income. However, these sub-primes were transformed into securities, which were mixed which were mixed with other secured mortgage loans and traded on the financial markets. This “securitisation” practice presented the triple advantage of being very profitable for banks, reducing their mortgage credit risks and dispersing the risks throughout the financial system. The practice grew exponentially in the past decade, spurred in particular by a range of political measures. As banks increasingly threw themselves into the race for profitable short-term financial operations, the volume and trading of these securities multiplied.

Because of the interwoven nature of global finance, assets tied to subprime loans were amassed in all institutions and on all financial markets around the world. The issue stemmed from the fact that many subprime borrowers had to default on their loans after only a few years because they couldn't keep up with the dramatic increase in their monthly payments. The rise in US interest rates that began in 2004 and the unanticipated drop in real estate prices that began in 2006 exacerbated these defaults. The securities tied to these sub-primes swiftly lost value, revealing the true toxicity of complex financial products (which included securities related to subprime loans). Banks no longer had any confidence in the financial products available on the market and stopped transacting. A gigantic financial paralysis followed, initiated by the inter banking crisis of July 2007. Major banks found themselves totally or nearly bankrupted. Cascading bank failures led to a credit shortage, which blocked investment and corporate operations, plunging the world into a deep economic recession – the first to touch so many countries simultaneously.

Check Your Progress- V

Q1. Briefly explain the relationship of banks and financial crisis.

Ans.-----

Q2. What do you mean by the channel of valuation?

Ans.-----

8.10 Summary

In this unit, we have studied about common currency, common market its advantages and disadvantages of common currency. We have learnt about trade blocs as well. Common currency has main impact on price transparency and price stability. It helps in expanding business in countries as well as regional economic cooperation. The first common currency union the European Union is also studied. We can consider financial globalisation to have contributed to the origination of the crisis by enabling the scaling-up of the US securitisation boom that was the proximate trigger for the crisis -- it is difficult to imagine that the growth in these credit markets would have been of similar magnitude without the participation of foreign investors. In addition, financial globalisation also had a central role in the emergence of large and persistent differences in credit growth and current account imbalances across countries -- these imbalances would play a central role in determining the cross-country incidence and propagation of the original crisis.

8.11 Questions for Practice

A. Short Answer Type Questions

Q1.Explain all the conditions to make a monetary union?

Q2. What are the advantages and disadvantages of monetary union?

Q3.Explain financial Globalisation and Sources of the Crisis.

Q4. Explain the followings:

a) Trading Blocks

b) Single currency

Q5.Financial Globalisation Explain Sources of the Crisis of Financial Globalisation.

Q6. Explain International capital movements and financial crisis.

Q7.Explain the advantages and disadvantages of RTAs

Q8.What are the Common Currency and Regional Economic Co-operation?

Q9.Define financial crisis and banks.

B. Long Answer Type Questions

Q1.What are the advantages and disadvantages of common currency?

Q2.Explain common currency and regional economic cooperation

Q3.What are the conditions to make a monetary union?

Q4.Describe the advantages and disadvantages of European Currency Union.

Q5.What is financial globalisation? Explain the reasons of financial crisis.

8.12 Suggested Readings

- Paul A. Samuelson and William D. Nordhaus: Economics: An Introduction
- Sen, S: Global Finance at Risk
- Sodersten, B. and Reed, G: International Economics