

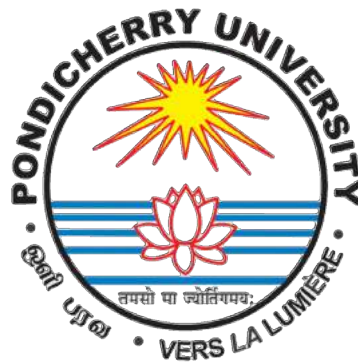
PONDICHERRY UNIVERSITY

(A Central University)

DIRECTORATE OF DISTANCE EDUCATION

Global Financial Markets and Instruments

Paper Code : MBIB 4001



MBA - INTERNATIONAL BUSINESS

IV - Semester

Authors

- ✻ **Prof. Zaheer Ahmed**
- ✻ **Prof. Prof. Michel Raj**
- ✻ **Prof. S. Prakash**
- ✻ **Prof. P. Natarajan**
- ✻ **Prof. Jonardan Konear**

©All Rights Reserved

For Private Circulation Only

TABLE OF CONTENTS

UNIT	LESSON	TITLE	PAGE NO.
I	1.1	Globalization of Financial Markets	3
	1.2	The Bretton Woods System	12
	1.3	The Gold Standard	28
	1.4	The European Monetary System	41
II	2.1	Creation of Euro – Currency Markets an over view	72
	2.2	Creation of Euro Dollar	85
	2.3	Emergence of Global Currency Markets	95
	2.4	The size and structure of European Markets	102
	2.5	Regulatory Systems of Foreign Exchange	112
	2.6	Major Instruments	119
III	3.1	International Financial Markets	123
IV	4.1	International Money Market Instruments and Institutions	189
V	5.1	Comparison of domestic, foreign and euro markets	227
	5.2	Hedging & Speculation	246
	5.3	Lending and Investment	260
	5.4	Forex Risk and euro currency markets for Lending & Investment	265
	5.5	Interest Rate Parity Theory	282

PAPER - XVI

Global Financial Markets and Instruments

Objectives

- To introduce and enhance skills on Global Financial Market, instruments and strategies.

Unit - I

Introduction to International Financial System - Brettonwood conference and afterwards; European monetary system. Fixed vs Floating Exchange Rate regimes – International economic institutions – IMF, World Bank and WTO

Unit - II

Creation of Euro Currency Markets - Creation of Euro Dollar – Emergence of Global Currency Markets – Size and Structure of Europe and Asian Markets – Transaction – Regulatory systems – Major instruments

Unit - III

International Financial Markets and Instruments - International capital and money market instruments and their salient features; Integration of financial markets and approach; Arbitrage opportunities; Role of financial intermediaries.

Unit - IV

International Money Market Instruments and Institutions - GDRs, ADRs, IDRs, Euro Bonds, Euro Loans, Repos, CPs, derivatives, floating rate instruments, loan syndication and Euro deposits; IMF, IBRD, Development Banks.

Unit - V

Global Shopping for funds and Investments - Comparison of Domestic, Foreign and Euro Currency Markets for Lending and Investment – Forex Risk – Interest Rate Parity – Cover deals – Using global markets for Hedging – Arbitrage – speculation – Cost comparisons.

References

1. **Buckley, Adrian**, MULTINATIONAL FINANCE, *Prentice Hall of India, New Delhi*
2. **Henning, C.N., Piggot, W. and Scott, W.H**, INTERNATIONAL FINANCIAL MANAGEMENT, *Mc Graw Hill, Int. Ed., New York.*
3. **Maurice, Levi**, INTERNATIONAL FINANCE, *McGraw Hill, Int. Ed., New York.*
4. **Rodriquez, R.M and E.E Carter**, INTERNATIONAL FINANCIAL MANAGEMENT, *Prentice Hall of India, Delhi.*
5. **Shapiro, A.C.**, MULTINATIONAL FINANCIAL MANAGEMENT, *Prentice Hall of India, New Delhi.*

UNIT – I

Unit Structure

Lesson 1.1 - Globalization of Financial Markets

Lesson 1.2 - The Bretton Woods System

Lesson 1.3 - The Gold Standard

Lesson 1.4 - The European Monetary System

Lesson 1.1 - Globalization of Financial Markets

Learning Objectives

After studying this lesson you should able to:

- Explain the Liberalized Foreign Investment Policy
- Understand the International Financial Markets
- Explain the Institutions involved in International Financial Markets
- Know the Major Players in Financial Markets
- Explain the Existing Types of Financial Market Structures

Introduction

Globalization of trade implies ‘**universalisation of the process of trade**’. In 1990, increased openness to international trade, under such headings as, “outward orientation” or “trade liberalization” has been advocated as an engine of economic growth and a road to development. The marginalization of Indian economy together with many other factors resulted in a severe balance of payment crisis. The foreign exchange reserves fell rapidly to less than three weeks of our imports needs. In order to overcome this situation, and boost up exports, the Government initiated steps for the dismantling of restrictive policy instruments through reforms in trade, tariff, and exchange rate policies.

After examining the list of imports and exports, the following corrections were made: gradual withdrawal of many of the quantitative restrictions on imports and exports, shifting of a significant number of items outside the purview of import licensing, considerable reduction in the level of tariff rates, Exim scrip's devaluation of rupee, partial and later on full convertibility of rupee etc.

New Global Economic War

After the Second War and the IMF par value system came into existence, we became part of the new world system. Countries had exchange control and various sorts of trade restrictions. It was after the Seventies that gradually a scheme of flexible exchange rates came into existence among leading developed countries. Gradually the developed countries started freeing their exchange rates and also moved towards their system off free trade.

The World Trade Organization, of which we are a member, is now introducing all over the world a free trade system. After the advent of Economic Reforms from 1991-1992, we have moved over to currency, convertibility on current account. The importance of the World Bank as financier has diminished considerably. The world is now dependant on private capital imports. Even the role of the IMF has diminished with most countries adopting currency convertibility. Capital flows are moving on a large scale dependent on incentives. Most countries have lifted trade barriers and reduced import duties.

The WTO is introducing system in which domestic subsidies have to be removed and uniform and low import duties have now to become the standard. There is no place for tariff barriers and non-tariff barriers are also now getting lifted. The world's industries are now organized largely in terms of multinational corporations whose operations transcend many countries. International demonstration effects are working powerfully in determining the living styles in all countries.

Liberalized Foreign Investment Policy

In June 1991, Indian government initiated Programme of macro economic stabilization and structural adjustment supported by IMF and the World Bank. As part of this Programme a new industrial policy was announced on July 24, 1991 in the Parliament, which has started the process of full-scale liberalization and intensified the process of integration of India with the global economy.

A Foreign Investment Promotion Board (FIPB), authorized to provide a single window clearance as been set up. India became a signatory to the convention of MIGA for

protection of foreign investments. Companies with more than 40 per cent of foreign equity are now treated on par with fully Indian owned companies. New sectors such as mining, banking, telecommunications, high-way construction, and management have been thrown Open to private, including foreign owned companies.

International Financial Markets

Basic Terms - Meaning

An **asset** is anything of durable value, that is, anything that acts as a means to store value over time. **Real assets** are assets in physical form (e.g., land, equipment, houses, etc.), including “human capital” assets embodied in people (natural abilities, learned skills, knowledge). **Financial assets** are claims against real assets, either directly (e.g., stock share equity claims) or indirectly (e.g., money holdings, or claims to future income streams that originate ultimately from real assets). **Securities** are financial assets exchanged in auction and over-the-counter markets (see below) whose distribution is subject to legal requirements and restrictions (e.g., information disclosure requirements).

Lenders are people who have available funds in excess of their desired expenditures that they are attempting to loan out, and **borrowers** are people who have a shortage of funds relative to their desired expenditures who are seeking to obtain loans. Borrowers attempt to obtain funds from lenders by selling to lenders newly issued claims against the borrowers’ real assets, i.e., by selling the lenders newly issued financial assets.

A **financial market** is a market in which financial assets are traded. In addition to enabling exchange of previously issued financial assets, financial markets facilitate borrowing and lending, by facilitating the sale by newly issued financial assets. A **financial institution** is an institution whose primary source of profits is through financial asset transactions. Examples of such financial institutions include discount brokers, banks, insurance companies, and complex multi-function financial institutions.

Financial Markets and Institutions

Financial markets serve six basic functions. These functions are briefly listed below:

- **Borrowing and Lending:** Financial markets permit the transfer of funds from one agent to another for either investment or consumption purposes.
- **Price Determination:** Financial markets provide vehicles by which prices are set both for newly issued financial assets and for the existing stock of financial assets.

- **Information Aggregation and Coordination:** Financial markets act as collectors and aggregators of information about financial asset values and the flow of funds from lenders to borrowers.
- **Risk Sharing:** Financial markets allow a transfer of risk from those who undertake investments to those who provide funds for those investments.
- **Liquidity:** Financial markets provide the holders of financial assets with a chance to resell or liquidate these assets.
- **Efficiency:** Financial markets reduce transaction costs and information costs.

Major Players in Financial Markets

By definition, financial institutions are institutions that participate in financial markets, i.e., in the creation and/or exchange of financial assets. The following are the major players of financial markets:

- **Brokers**

A *broker* is a commissioned agent of a buyer (or seller) who facilitates trade by locating a seller (or buyer) to complete the desired transaction. A broker does not take a position in the assets they trade. The profits of brokers are determined by the commissions they charge to the users of their services (the buyers, the sellers, or both).



Diagrammatic Illustration of a Stock Broker

- **Dealers**

Like brokers, dealers facilitate trade by matching buyers with sellers of assets; they do not engage in asset transformation. Unlike brokers, however, a dealer can and does “take positions” (i.e., maintain inventories) in the assets he or she trades that permit the dealer to sell out of inventory rather than always having to locate sellers to match every offer to buy. Also, unlike brokers, dealers do not receive sales commissions. Rather, dealers make profits by buying assets at relatively low prices and reselling them at relatively high prices (buy low

- sell high). The price at which a dealer offers to sell an asset (the “asked price”) minus the price at which a dealer offers to buy an asset (the “bid price”) is called the *bid-ask spread* and represents the dealer’s profit margin on the asset exchange.



Diagrammatic Illustration of a Bond Dealer

- **Investment Banks**

An *investment bank* assists in the initial sale of newly issued securities (i.e., in IPOs = Initial Public Offerings) by engaging in a number of different activities:

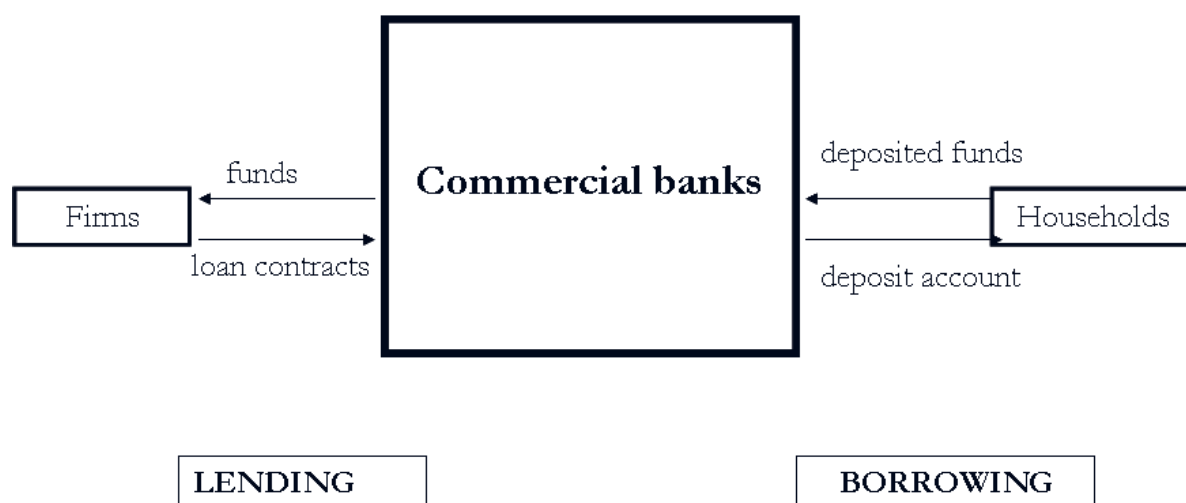
- **Advice:** Advising corporate on whether they should issue bonds or stock, and, for bond issues, on the particular types of payment schedules these securities should offer;
- **Underwriting:** Guaranteeing corporate a price on the securities they offer, either individually or by having several different investment banks form a syndicate to underwrite the issue jointly;
- **Sales Assistance:** Assisting in the sale of these securities to the public.

- **Financial Intermediaries**

Unlike brokers, dealers, and investment banks, *financial intermediaries* are financial institutions that engage in financial asset transformation. That is, financial intermediaries purchase one kind of financial asset from borrowers - generally some kind of long-term loan contract whose terms are adapted to the specific circumstances of the borrower (e.g. a mortgage) - and sell a different kind of financial asset to savers, generally some kind of relatively liquid claim against the financial intermediary (e.g. a deposit account). In addition, unlike brokers and dealers, financial intermediaries typically hold financial assets as part of an investment portfolio rather than as an inventory for resale. In addition to making profits on their investment portfolios, financial intermediaries make profits by charging relatively high interest rates to borrowers and paying relatively low interest rates to savers.

Types of financial intermediaries include

Depository Institutions (commercial banks, savings and loan associations, mutual savings banks, credit unions); *Contractual Savings Institutions* (life insurance companies, fire and casualty insurance companies, pension funds, government retirement funds); and *Investment Intermediaries* (finance companies, stock and bond mutual funds, money market mutual funds).



Diagrammatic Example of a Financial Intermediary: A Commercial Bank

Existing Types of Financial Market Structures

The costs of collecting and aggregating information determine, to a large extent, the types of financial market structures that emerge. These structures take four basic forms:

- *Auction markets* conducted through brokers;
- *Over-the-counter (OTC) markets* conducted through dealers;
- *Organized Exchanges*, such as the New York Stock Exchange, which combine auction and OTC market features. Specifically, organized exchanges permit buyers and sellers to trade with each other in a centralized location, like an auction. However, securities are traded on the floor of the exchange with the help of *specialist traders* who combine broker and dealer functions.
- *Intermediation financial markets* conducted through financial intermediaries;

Financial markets taking the first three forms are generally referred to as *securities markets*. Some financial markets combine features from more than one of these categories, so the categories constitute only rough guidelines.

- ***Auction Markets***

An *auction market* is some form of centralized facility (or clearing house) by which buyers and sellers, through their commissioned agents (brokers), execute trades in an open and competitive bidding process. The “centralized facility” is not necessarily a place where buyers and sellers physically meet. Rather, it is any institution that provides buyers and sellers with a centralized access to the bidding process.

All of the needed information about offers to buy (*bid prices*) and offers to sell (*asked prices*) is centralized in one location which is readily accessible to all would-be buyers and sellers, e.g., through a computer network. No private exchanges between individual buyers and sellers are made outside of the centralized facility.

An auction market is typically a public market in the sense that it open to all agents who wish to participate. Auction markets can either be *call markets* - such as art auctions - for which bid and asked prices are all posted at one time, or *continuous markets* - such as stock exchanges and real estate markets.

Over-the-Counter Markets

An *over-the-counter market* has no centralized mechanism or facility for trading. Instead, the market is a public market consisting of a number of dealers spread across a region, a country, or indeed the world, who *make the market* in some type of asset. That is, the dealers themselves post bid and asked prices for this asset and then stand ready to buy or sell units of this asset with anyone who chooses to trade at these posted prices.

The dealers provide customers more flexibility in trading than brokers, because dealers can offset imbalances in the demand and supply of assets by trading out of their own accounts.

- ***Intermediation Financial Markets***

An *intermediation financial market* is a financial market in which financial intermediaries help transfer funds from savers to borrowers by issuing certain types of financial assets to savers and receiving other types of financial assets from borrowers.

The financial assets issued to savers are claims against the financial intermediaries, hence liabilities of the financial intermediaries, whereas the financial assets received from borrowers are claims against the borrowers, hence assets of the financial intermediaries

Distinctions Between Securities Markets

- *Primary Versus Secondary Markets*

Primary markets are securities markets in which *newly* issued securities are offered for sale to buyers. *Secondary markets* are securities markets in which *existing* securities that have previously been issued are resold. The initial issuer raises funds only through the primary market.

- *Debt Versus Equity Markets*

Debt instruments are particular types of securities that require the issuer (the borrower) to pay the holder (the lender) certain fixed dollar amounts at regularly scheduled intervals until a specified time (the maturity date) is reached, regardless of the success or failure of any investment projects for which the borrowed funds are used.

A debt instrument holder only participates in the management of the debt instrument issuer if the issuer goes bankrupt. An example of a debt instrument is a 30-year mortgage. In contrast, *equity* is a security that confers on the holder an ownership interest in the issuer.

There are two general categories of equities: “preferred stock” and “common stock.” *Common stock shares* issued by a corporation are claims to a share of the assets of a corporation as well as to a share of the corporation’s net income - i.e., the corporation’s income after subtraction of taxes and other expenses, including the payment of any debt obligations. This implies that the return that holders of common stock receive depends on the economic performance of the issuing corporation.

In contrast, *preferred stock shares* are usually issued with a par value and pay a fixed dividend expressed as a percentage of par value. Preferred stock is a claim against a corporation’s cash flow that is prior to the claims of its common stock holders but is generally subordinate to the claims of its debt holders.

In addition, like debt holders but unlike common stock holders, preferred stock holders generally do not participate in the management of issuers through voting or other means unless the issuer is in extreme financial distress (e.g., insolvency).

Consequently, preferred stock combines some of the basic attributes of both debt and common stock and is often referred to as a *hybrid security*.

- ***Money Versus Capital Markets***

The *money market* is the market for shorter-term securities, generally those with one year or less remaining to maturity.

The *capital market* is the market for longer-term securities, generally those with more than one year to maturity.

- ***Domestic Versus Global Financial Markets***

Euro-currencies are currencies deposited in banks outside the country of issue. For example, *euro-dollars*, a major form of euro-currency, are U.S. dollars deposited in foreign banks outside the U.S. or in foreign branches of U.S. banks. That is, euro-dollars are dollar-denominated bank deposits held in banks outside the U.S. An *international bond* is a bond available for sale outside the country of its issuer. A *foreign bond* is an international bond issued by a country that is denominated in a foreign currency and that is for sale exclusively in the country of that foreign currency. A *Eurobond* is an international bond denominated in a currency other than that of the country in which it is sold.

Lesson 1.2 - The Bretton Woods System

Learning Objectives

After studying this lesson you should be able to:

- Know the Origins of the Bretton Woods System
- Understand the International Financial Markets
- Understand The Design of the Bretton Woods System
- Explain Exchange Rate Stability
- Explain the role of IMF and IBRD
- Explain the Late Bretton Woods System

Introduction

The **Bretton Woods System** of international economic management established the rules for commercial and financial relations among the major industrial states. The Bretton Woods System was the first example of a fully negotiated monetary order in world history intended to govern monetary relations among independent nation-states. Preparing to rebuild global capitalism as World War II was still raging, 730 delegates from all 44 Allied nations gathered at the Mount Washington Hotel, situated in the New Hampshire resort town of Bretton Woods, for the United Nations Monetary and Financial Conference. The delegates deliberated upon and finally signed the **Bretton Woods Agreement** during the first three weeks of July 1944.

Setting up a system of rules, institutions, and procedures to regulate the international political economy, the planners at Bretton Woods established the International Bank for Reconstruction and Development (later divided into the World Bank and Bank for International Settlements) and the International Monetary Fund. These organizations became operational in 1946 after a sufficient number of countries had ratified the agreement.

The chief features of the Bretton Woods System were, first, an obligation for each country to maintain the exchange rate of its currency within a fixed value (plus or minus one percent) in terms of gold; and, secondly, the provision by the IMF of finance to bridge temporary payments imbalances. In face of increasing strain, the system eventually

collapsed in 1971, following the United States' suspension of convertibility from dollars to gold. Until the early-1970s, the Bretton Woods System was effective in controlling conflict and in achieving the common goals of the leading states that had created it, especially the United States.

The Origins of the Bretton Woods System

The political bases for the Bretton Woods System are to be found in the confluence of several key conditions: the shared experiences of the Great Depression, the concentration of power in a small number of states, and the presence of a dominant power willing and able to assume a leadership role.

The Experiences of the Great Depression

A high level of agreement among the powerful on the goals and means of international economic management facilitated the decisions reached by the Bretton Woods Conference. The foundation of that agreement was a shared belief in capitalism. Although the developed countries differed somewhat in the type of capitalism they preferred for their national economies (France, for example, preferred greater planning and state intervention, whereas the United States favoured relatively limited state intervention); all nevertheless relied primarily on market mechanisms and on private ownership. Yet, it is their similarities rather than their differences that appear most striking. All the participating governments at Bretton Woods agreed that the monetary chaos of the interwar period had yielded several valuable lessons.

The experience of the Great Depression, when proliferation of exchange controls and trade barriers led to economic disaster, was fresh on the minds of public officials. The planners at Bretton Woods hoped to avoid a repeat of the debacle of the 1930s, when exchange controls undermined the international payments system that was the basis for world trade. The “beggar thy neighbour” policies of 1930s governments (using currency devaluations to increase the competitiveness of a country's export products in order to reduce balance of payments deficits) worsened national deflationary spirals, which resulted in plummeting national incomes, shrinking demand, mass unemployment, and a overall decline in world trade. Trade in the 1930s became largely restricted to currency blocs (groups of nations that use an equivalent currency, such as the “Pound Sterling Bloc” of the British Empire). These blocs retarded the international flow of capital and foreign investment opportunities. Although this strategy tended to increase government revenues in the short-run, it dramatically worsened the situation in the medium and longer-run. Thus, for the international economy, planners at Bretton Woods all favored a liberal system,

one that relied primarily on the market with the minimum of barriers to the flow of private trade and capital. Although they disagreed on the specific implementation of this liberal system, all agreed on an open system.

Economic Security

Also based on experience of interwar years, U.S. planners developed a concept of economic security that a liberal international economic system would enhance the possibilities of postwar peace. One of those who saw such a security link was Cordell Hull, the U.S. secretary of state from 1933 to 1944. Hull believed that the fundamental causes of the two world wars lay in economic discrimination and trade warfare. Specifically, he had in mind, the trade, and exchange controls (bilateral arrangements) of Nazi Germany and the imperial preference system practiced by Britain (by which members or former members of the British Empire were accorded special trade status).

Governmental Intervention

The developed countries also agreed that the liberal international economic system required governmental intervention. In the aftermath of the Great Depression, public management of the economy had emerged as a primary activity of governments in the developed states. Employment, stability, and growth were now important subjects of public policy. In turn, the role of government in the national economy had become associated with the assumption by the state of the responsibility for assuring of its citizens a degree of economic well-being. The welfare state grew out of the Great Depression, which created a popular demand for governmental intervention in the economy, and out of the theoretical contributions of the Keynesian school of economics, which asserted the need for governmental intervention to maintain adequate levels of employment.

At the international level, these ideas also evolved from the experience of the 1930s. The priority of national goals, independent national action in the interwar period, and the failure to perceive that those national goals could not be realized without some form of international collaboration resulted in “beggar-thy-neighbor” policies such as high tariffs and competitive devaluations contributed to economic breakdown, domestic political instability, and international war. The lesson learned was that, as New Dealer Harry Dexter White, the principal architect of the Bretton Woods System put it:

“the absence of a high degree of economic collaboration among the leading nations will... inevitably result in economic warfare that will be but the prelude and instigator of military warfare on an even vaster scale.”

U.S. Hegemony

International economic management relied on the dominant power to lead the system. The concentration of power facilitated management by confining the number of actors whose agreement was necessary to establish rules, institutions, and procedures and to carry out management within the agreed system. That leader was, of course, the United States. As the world's foremost economic and political power, the United States was clearly in a position to assume the responsibility of leadership.

The United States had emerged from the Second World War as the strongest economy in the world, experiencing rapid industrial growth and capital accumulation. The U.S. had remained untouched by the ravages of World War II and had built a thriving manufacturing industry and grown wealthy selling weapons and lending money to the other combatants; in fact, U.S. industrial production in 1945 was more than double that of annual production between the prewar years of 1935 and 1939. In contrast, Europe and Japan were militarily and economically shattered.

As the Bretton Woods Conference convened, the relative advantages of the U.S. economy were undeniable and overwhelming. The U.S. held a majority of world investment capital, manufacturing production and exports. In 1945, the U.S. produced half the world's coal, two-thirds of the oil, and more than half of the electricity.

The U.S. was able to produce great quantities of ships, airplanes, land vehicles, armaments, machine tools, chemical products, and so on. Reinforcing the initial advantage (and assuring the U.S. unmistakable leadership in the capitalist world) the U.S. held 80 percent of the world's gold reserves and had not only a powerful army but also the atomic bomb.

As the world's greatest industrial power, and one of the few nations not ravaged by the war, the U.S. stood to gain more than any other country from the opening of the entire world to unfettered trade. The United States would have a global market for its exports, and it would have unrestricted access to vital raw materials.

The United States was not only able, it was also willing, to assume this leadership role. Although the U.S. had more gold, more manufacturing capacity and more military power than the rest of the world put together, U.S. capitalism could not survive without markets and allies. William Clayton, the assistant secretary of state for economic affairs, was among myriad U.S. policymakers who summed up this point: "We need markets, big markets around the world in which to buy and sell."

There had been many predictions that peace would bring a return of depression and unemployment, as war production ceased and returning soldiers flooded the labor market. Compounding the economic difficulties was a sharp rise in labor unrest. Determined to avoid another economic catastrophe like that of the 1930s, U.S. President Franklin D. Roosevelt saw the creation of the postwar order as a way to ensure continuing U.S. prosperity.

The Atlantic Charter

Throughout the war, the United States envisaged a postwar economic order in which the U.S. could penetrate markets that had been previously closed to other currency trading blocs, as well as to open up opportunities for foreign investments for U.S. corporations by removing restrictions on the international flow of capital. The Atlantic Charter, drafted during President Roosevelt's August 1941 meeting with British Prime Minister Winston Churchill on a ship in the North Atlantic was the most notable precursor to the Bretton Woods Conference. Like Woodrow Wilson before him, whose "Fourteen Points" had outlined U.S. aims in the aftermath of World War I; Roosevelt set forth a range of ambitious goals for the postwar world even before the U.S. had entered the Second World War.

The Atlantic Charter affirmed the right of all nations to equal access to trade and raw materials. Moreover, the charter called for freedom of the seas (a principal U.S. foreign policy aim since France and Britain had first threatened U.S. shipping in the 1790s), the disarmament of aggressors, and the "establishment of a wider and permanent system of general security."

As the war drew to a close, the Bretton Woods Conference was the culmination of some two and a half years of planning for postwar reconstruction by the Treasuries of the U.S. and the UK. U.S. representatives studied with their British counterparts the reconstitution of what had been lacking between the two world wars: a system of international payments that would allow trade to be conducted without fear of sudden currency depreciation or wild fluctuations in exchange rates ailments that had nearly paralyzed world capitalism during the Great Depression.

Without a strong European market for U.S. goods and services, most policymakers believed, the U.S. economy would be unable to sustain the prosperity it had achieved during the war. In addition, U.S. unions had only grudgingly accepted government-imposed restraints on their demand during the war, but they were willing to wait no longer, particularly as inflation cut into the existing wage scales with painful force. By the end of 1945, there had been major strikes in the automobile, electrical, and steel industries. Financier and self-appointed adviser to presidents and congressmen, Bernard Baruch, summed up the spirit of

Bretton Wood in early 1945: if we can “stop subsidization of labor and sweated competition in the export markets,” as well as prevent rebuilding of war machines, “oh boy, oh boy, what long term prosperity we will have.” Thus, the United States would use its predominant position to restore an open world economy, unified under U.S. control, which gave the U.S. unhindered access to markets and raw materials.

U.S. Hegemony and Europe

Furthermore, U.S. allies (economically exhausted by the war) accepted this leadership. They needed U.S. assistance to rebuild their domestic production and to finance their international trade; indeed, they needed it to survive. Before the war, the French and the British were realizing that they could no longer compete with U.S. industry in an open marketplace. During the 1930s, the British had created their own economic bloc to shut out U.S. goods. Churchill did not believe that he could surrender that protection after the war, so he watered down the Atlantic Charter’s “free access” clause before agreeing to it. Combined, British and U.S. trade accounted for well over half the world’s exchange of goods. If the British bloc could be split apart, the U.S. would be well on its way to opening the entire global marketplace. But as the nineteenth century had been economically dominated by Britain, the second half of the twentieth was to be one of U.S. hegemony.

A devastated Britain had little choice. Two world wars had destroyed the country’s principal industries that paid for the importation of half the nation’s food and nearly all its raw materials except coal. The British had no choice but to ask for aid. In 1945, the U.S. agreed to a loan of 3.8 billion. In return, weary British officials promised to negotiate the agreement.

For nearly two centuries, French and U.S. interests had clashed in both the Old World and the New World. During the war, French mistrust of the United States was embodied by General Charles de Gaulle, president of the French provisional government. De Gaulle bitterly fought U.S. officials as he tried to maintain his country’s colonies and diplomatic freedom of action. In turn, U.S. officials saw de Gaulle as a political extremist. But in 1945, de Gaulle the leading voice of French nationalism was forced to grudgingly ask the U.S. for a billion dollar loan. Most of the request was granted; in return France promised to curtail government subsidies and currency manipulation that had given its exporters advantages in the world market.

On a far more profound level, as the Bretton Woods conference was convening, the greater part of the Third World remained politically and economically subordinate. Linked to the developed countries of the West economically and politically formally and

informally these states had little choice but to acquiesce to the international economic system established for them. In the East, Soviet hegemony in Eastern Europe provided the foundation for a separate and stable international economic system.

In short, the confluence of these three favorable political conditions the concentration of power, the cluster of shared interests and ideas, and the hegemony of the United States provided the political capability to equal the tasks of managing the international economy.

The Design of the Bretton Woods System

Free trade relied on the free convertibility of currencies. Negotiators at the Bretton Woods Conference, fresh from what they perceived as a disastrous experience with floating rates in the 1930s, concluded that major monetary fluctuations could stall the free flow of trade.

The liberal economic system required an accepted vehicle for investment, trade, and payments. Unlike national economies, however, the international economy lacks a central government that can issue currency and manage its use. In the past this problem had been solved through the use of gold and through the use of national currencies.

In the nineteenth and twentieth centuries gold played a key role in international monetary transactions. The gold standard was used to back currencies; the international value of currency was determined by its fixed relationship to gold; gold was used to settle international accounts. The gold standard maintained fixed exchange rates that were seen as desirable because they reduced the risk of trading with other countries.

Imbalances in international trade were theoretically rectified automatically by the gold standard. A country with a deficit would have depleted gold reserves and would thus have to reduce its money supply. The resulting fall in demand would reduce imports and the lowering of prices would boost exports; thus the deficit would be rectified. Any country experiencing inflation would lose gold and therefore would have a decrease in the amount of money available to spend. This decrease in the amount of money would act to reduce the inflationary pressure. Supplementing the use of gold in this period was the British pound. Based on the dominant British economy, the pound became a reserve, transaction, and intervention currency. But the pound was not up to the challenge of serving as the primary world currency, given the weakness of the British economy after World War II.

The architects of Bretton Woods had conceived of a system wherein exchange rate stability was a prime goal. Yet, in an era of more activist economic policy, governments did

not seriously consider permanently fixed rates on the model of the classical gold standard of the nineteenth century. Gold production was not even sufficient to meet the demands of growing international trade and investment. And a sizable share of the world's known gold reserves were located in the Soviet Union, which would later emerge as a Cold War rival of the United States and Western Europe.

The only currency strong enough to meet the rising demands for international liquidity was the US dollar. The strength of the U.S. economy, the fixed relationship of the dollar to gold (\$35 an ounce), and the commitment of the U.S. government to convert dollars into gold at that price made the dollar as good as gold. In fact, the dollar was even better than gold: it earned interest and it was more flexible than gold.

Exchange Rate Stability

The Bretton Woods system sought to secure the advantages of the gold standard without its disadvantages. Thus, a compromise was sought between the polar alternatives of either freely- floating or irrevocably fixed rates, an arrangement that might gain the advantages of both without suffering the disadvantages of either while retaining the right to revise currency values on occasion as circumstances warranted.

The rules of Bretton Woods, set forth in the articles of agreement, provided for a system of fixed exchange rates. The rules further sought to encourage an open system by committing members to the convertibility of their respective currencies into other currencies and to free trade.

The “Pegged Rate” or “Par Value” Currency Regime

What emerged was the “pegged rate” currency regime. Members were obligated to establish a parity of their national currencies in terms of gold (a “peg”) and to maintain exchange rates within one percent, plus or minus, of parity (a “band”) by intervening in their foreign exchange markets (that is, buying or selling foreign money).

The “Reserve Currency”

In practice, however, since the principal “reserve currency” would be the U.S. dollar, this meant that other countries would peg their currencies to the U.S. dollar, and - once convertibility was restored - would buy and sell U.S. dollars to keep market exchange rates within one percent, plus or minus, of parity. Thus, the U.S. dollar took over the role that gold had played under the gold standard in the international financial system.

Meanwhile, in order to bolster faith in the dollar, the U.S. agreed separately to link the dollar to gold at the rate of \$35 per ounce of gold. At this rate, foreign governments and central banks were able to exchange dollars for gold. Bretton Woods established a system of payments based on the dollar, in which all currencies were defined in relation to the dollar, itself convertible into gold, and above all, “as good as gold.”

The U.S. currency was now effectively the world currency, the standard to which every other currency was pegged. As the world’s key currency, most international transactions were denominated in dollars.

The U.S. dollar was the currency with the most purchasing power and it was the only currency that was backed by gold. Additionally, all European nations that had been involved in World War II were highly in debt and transferred large amounts of gold into the United States, a fact that contributed to the supremacy of the United States. Thus, the U.S. dollar was strongly appreciated in the rest of the world and therefore became the key currency of the Bretton Woods system.

Member countries could only change their par value with IMF approval, which was contingent on IMF determination that its balance of payments was in a “fundamental disequilibrium.”

Formal Regimes

The Bretton Woods Conference led to the establishment of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (now known as the World Bank), which still remain powerful forces in the world economy. As mentioned, a major point of common ground at the Conference was the goal to avoid a recurrence of the closed markets and economic warfare that had characterized the 1930s.

Thus, negotiators at Bretton Woods also agreed that there was a need for an institutional forum for international cooperation on monetary matters. Already in 1944 the British economist John Maynard Keynes emphasized “the importance of rule-based regimes to stabilize business expectations”, something he accepted in the Bretton Woods system of fixed exchanged rates. Currency troubles in the interwar years, it was felt, had been greatly exacerbated by the absence of any established procedure or machinery for inter-governmental consultation. As a result of the establishment of agreed upon structures and rules of international economic interaction, conflict over economic issues was minimized, and the significance of the economic aspect of international relations seemed to recede.

The International Monetary Fund

Officially established on December 27, 1945, when the 29 participating countries at the conference of Bretton Woods signed its Articles of Agreement, the IMF was to be the keeper of the rules and the main instrument of public international management. The Fund commenced its financial operations on March 1, 1947. IMF approval was necessary for any change in exchange rates. It advised countries on policies affecting the monetary system.

Designing the IMF

The big question at the Bretton Woods Conference with respect to the institution that would emerge as the IMF was the issue of future access to international liquidity and whether that source should be akin to a world central bank able to create new reserves at will or a more limited borrowing mechanism. As the chief international economist at the U.S. Treasury in 1942-44, Harry Dexter White drafted the U.S. blueprint for international access to liquidity, which competed with the plan drafted for the British Treasury by the eminent British economist John Maynard Keynes.

Overall, White's scheme tended to favor incentives designed to create price stability within the world's economies, while Keynes' wanted a system that encouraged economic growth. Although compromise was reached on some points, because of the overwhelming economic and military power of the U.S., the participants at Bretton Woods largely agreed on White's plan. As a result, the IMF was born with an economic approach and political ideology that stressed controlling inflation and introducing austerity plans over fighting poverty. This left the IMF severely detached from the realities of Third World countries struggling with underdevelopment from the onset.

Subscriptions and Quotas

What emerged largely reflected U.S. preferences: a system of subscriptions and quotas embedded in the IMF, which itself was to be no more than a fixed pool of national currencies and gold subscribed by each country as opposed to a world central bank capable of creating money. The Fund was charged with managing various nations' trade deficits so that they would not produce currency devaluations that would trigger a decline in imports.

The IMF was provided with a fund, composed of contributions of member countries in gold and their own currencies. The original quotas planned were to total \$8.8 billion. When joining the IMF, members were assigned "quotas" reflecting their relative economic power, and, as a sort of credit deposit, were obliged to pay a "subscription" of an amount

commensurate to the quota. The subscription was to be paid 25 percent in gold or currency convertible into gold (effectively the dollar, which was the only currency then still directly gold convertible for central banks) and 75 percent in the member's own money.

Quota subscriptions were to form the largest source of money at the IMF's disposal. The IMF set out to use this money to grant loans to member countries with financial difficulties. Each member was then entitled to be able to immediately withdraw 25 percent of its quota in case of payment problems. If this sum was insufficient, each nation that had the system was also able to request loans for foreign currency.

Financing Trade Deficits

In the event of a deficit in the current account, Fund members, when short of reserves, would be able to borrow needed foreign currency from this fund in amounts determined by the size of its quota. In other words, the higher the country's contribution was, the higher the sum of money it could borrow from the IMF.

Members were obliged to pay back debts within a period of eighteen months to five years. In turn, the IMF embarked on setting up rules and procedures to keep a country from going too deeply into debt, year after year. The Fund would exercise "surveillance" over other economies for the U.S. Treasury, in return for its loans to prop up national currencies.

IMF loans were not comparable to loans issued by a conventional credit institution. Instead, it was effectively a chance to purchase a foreign currency with gold or the member's national currency.

Changing the Par Value

The IMF sought to provide for occasional discontinuous exchange-rate adjustments (changing a member's par value) by international agreement with the IMF. Member nations were permitted first to depreciate (or appreciate in opposite situations) their currencies by 10 percent. This tends to restore equilibrium in its trade by expanding its exports and contracting imports. This would be allowed only if there was what was called a "fundamental disequilibrium." A decrease in the value of the country's money was called "devaluation" while an increase in the value of the country's money was called a "revaluation." It was envisioned that these changes in exchange rates would be quite rare. Regrettably the notion of fundamental disequilibrium, though key to the operation of the par value system, was never spelled out in any detail; an omission that would eventually come back to haunt the regime in later years.

IMF Operations

IMF was based in Washington, D.C., and staffed mainly by its economists. It regularly exchanged personnel with the U.S. Treasury. When the IMF began operations in 1946, President Harry S. Truman named White as its first U.S. Executive Director. Since no Deputy Managing Director post had yet been created, White served occasionally as Acting Managing Director and generally played a highly influential role during the IMF's first year.

The International Bank for Reconstruction and Development

No provision was made for international creation of reserves. New gold production was assumed sufficient. In the event of structural disequilibria, it was expected that there would be national solutions; a change in the value of the currency or an improvement by other means of a country's competitive position. Few means were given to the IMF, however, to encourage such national solutions. It had been recognized in 1944 that the new system could come into being only after a return to normalcy following the disruption of World War II. It was expected that after a brief transition period - expected to last no more than five years - the international economy would recover and the system would enter into operation.

To promote the growth of world trade and to finance the postwar reconstruction of Europe, the planners at Bretton Woods created another institution, the International Bank for Reconstruction and Development (IBRD), now known as the World Bank. The IBRD had an authorized capitalization of \$10 billion and was expected to make loans of its own funds to underwrite private loans and to issue securities to raise new funds to make possible a speedy postwar recovery. The IBRD (World Bank) was to be a specialized agency of the United Nations charged with making loans for economic development purposes.

Readjusting the Bretton Woods System

The Dollar Shortage and the Marshall Plan

The Bretton Wood arrangements were largely adhered to and ratified by the participating governments. It was expected that national monetary reserves, supplemented with necessary IMF credits, would finance any temporary balance of payments disequilibria. But this did not however prove sufficient to get Europe out of the doldrums.

Marshall Plan (the European Recovery Program) was set up to provide U.S. finance to rebuild Europe largely through grants rather than loans. The Marshall Plan was the program

of massive economic aid given by the United States to favoured countries in Western Europe for the rebuilding of capitalism.

To encourage long-term adjustment, the United States promoted European and Japanese trade competitiveness. Policies for economic controls on the defeated former Axis countries were scrapped. Aid to Europe and Japan was designed to rebuild productive and export capacity. In the long run it was expected that such European and Japanese recovery would benefit the United States by widening markets for U.S. exports, and providing locations for U.S. capital expansion. In 1958, the World Bank created the International Finance Corporation (IFC) and the International Development Agency (IDA).

Bretton Woods and the Cold War

In 1945, Roosevelt and Churchill prepared the postwar era by negotiating with Joseph Stalin at Yalta about respective zones of influence; this same year U.S. and Soviet troops joined together in Germany and confronted one another in Korea. American power had to be used to rebuild U.S.-friendly regimes and free market capitalism, especially in Europe. The fiscal discipline imposed by Bretton Woods made the U.S. the only nation that could afford large-scale foreign deployments within the Western alliance. Over the course of the late 1940s and early 1950s, the United Kingdom and France were gradually forced to accept abandoning colonial outposts, which would in the late 1950s and early 1960s, lead to revolt, and finally independence for most of their empires.

The price paid for this position (especially in the Cold War climate) was the militarization of the U.S. economy, what U.S. President Dwight D. Eisenhower called the “armament industry” and “the military-industrial complex,” and the related notion that the U.S. should assume a protective role in what was referred to as “the free world.”

The Late Bretton Woods System

- **The U.S. Balance of Payments Crisis (1958-1968)**

After the end of World War II, the U.S. held \$26 billion in gold reserves, of an estimated total of \$40 billion (approx 60%). As world trade increased rapidly through the 1950s, the size of the gold base increased by only a few percent. In 1958, the U.S. trade deficit swung negative. The first U.S. response to the crisis was in the late 1950s when the Eisenhower administration placed import quotas on oil and other restrictions on trade outflows. More drastic measures were proposed, but not acted on. However, with a mounting recession that began in 1959, this response alone was not sustainable. In 1960 with Kennedy’s election a decade long effort to maintain the Bretton Woods at the \$35/ounce price was begun.

The design of the Bretton Woods System was that only nations could enforce gold convertibility on the anchor currency - the United States. Gold convertibility enforcement was not required, but instead, allowed. Nations could forgo converting dollars to gold, and instead hold dollars. Rather than full convertibility, it provided a fixed price for sales between central banks. However, there was still an open gold market, 80% of which was traded through London, which issued a morning “gold fix,” which was the price of gold on the open market. For the Bretton Woods system to remain workable, it would either have to alter the peg of the dollar to gold, or it would have to maintain the free market price for gold near the \$35 per ounce official price. The greater the gap between free market gold prices and central bank gold prices, the greater the temptation to deal with internal economic issues by buying gold at the Bretton Woods price and selling it on the open market.

The first effort was the creation of the “London Gold Pool.” The theory of the pool was that spikes in the free market price of gold, set by the “morning gold fix” in London, could be controlled by having a pool of gold to sell on the open market, which would then be recovered when the price of gold dropped. Gold price spiked in response to events such as the Cuban Missile Crisis, and other smaller events, to as high as \$40/ounce. The Kennedy administration began drafting a radical change of the tax system in order to spur more productive capacity, and thus encourage exports. This would culminate with his tax cut program of 1963, designed to maintain the \$35 peg.

In 1967 there was an attack on the pound, and a run on gold in the “sterling area,” and on November 17, 1967, the British government was forced to devalue the pound. While West Germany agreed not to purchase gold from the U.S., and agreed to hold dollars instead, the pressure on both the Dollar and the Pound Sterling continued. In January 1968 Johnson imposed a series of measures designed to end gold outflow, and to increase American exports. However, to no avail: on March 17, 1968, there was a run on gold, the London Gold Pool was dissolved, and a series of meetings began to rescue or reform the system as it existed. The attempt to maintain that peg collapsed in November 1968, and a new policy program was attempted: to convert Bretton Woods to a system where the enforcement mechanism floated by some means, which would be set by either fiat, or by a restriction to honor foreign accounts.

- **“Floating” Bretton Woods 1968-1972**

By 1968, the attempt to defend the dollar at a fixed peg of \$35/ounce, the policy of the Eisenhower, Kennedy and Johnson administrations, had become increasingly perishable. Gold outflows from the United States accelerated, and despite gaining assurances from Germany and other nations to hold gold, the “dollar shortage” of the 1940s and 1950s had

become a dollar glut. In 1967, the IMF agreed in Rio de Janeiro to replace the tranche division set up in 1946. Special Drawing Rights were set as equal to one U.S. dollar, but were not usable for transactions other than between banks and the IMF. Nations were required to accept holding SDRs equal to three times their allotment, and interest would be charged, or credited, to each nation based on their SDR holding. The original interest rate was set at 1.5%.

The intent of the SDR system was to prevent nations from buying pegged dollars and selling them at the higher free market price, and give nations a reason to hold dollars, by crediting interest, at the same time, set a clear limit to the amount of dollars which could be held. The use of SDRs as “paper gold” seemed to offer a way to balance the system, turning the IMF, rather than the U.S., into the world’s central banker. The US tightened controls over foreign investment and currency, including mandatory investment controls in 1968. In 1970, U.S. President Richard Nixon lifted import quotas on oil in an attempt to reduce energy costs; instead, however, this exacerbated dollar flight, and created pressure from petro-dollars.

- **The “Nixon Shock”**

By the early 1970s, as the Vietnam War accelerated inflation, the United States was running not just a balance of payments deficit but also a trade deficit (for the first time in the twentieth century). The crucial turning point was 1970, which saw U.S. gold coverage deteriorate from 55% to 22%. This, in the view of neoclassical economists, represented the point where holders of the dollar had lost faith in the U.S. ability to cut its budget and trade deficits. In 1971 more and more dollars were being printed in Washington, then being pumped overseas, to pay for the nation’s military expenditures and private investments. In the first six months of 1971, assets for \$22 billion fled the United States. In response, on August 15, 1971, Nixon unilaterally imposed 90-day wage and price controls, a 10% import surcharge, and most importantly “closed(ing) the gold window,” making the dollar inconvertible to gold directly, except on the open market. Unusually, this decision was made without consulting members of the international monetary system or even with his own State Department, and was soon dubbed the Nixon shock.

The surcharge was dropped in December 1971 as part of a general revaluation of major currencies, which were henceforth allowed 2.25 percent devaluations from the agreed exchange rate. But even the more flexible official rates could not be defended against the speculators. By March 1976, all the world’s major currencies were floating; in other words, exchange rates were no longer the principal target used by governments to administer monetary policy.

- **The Smithsonian Agreement**

The shock of August 15 was followed by efforts under U.S. leadership to develop a new system of international monetary management. Throughout the fall of 1971, there was a series of multilateral and bilateral negotiations of the Group of Ten seeking to develop a new multilateral monetary system. In December of 1971, on the 17th and 18th, the Group of Ten, meeting in the Smithsonian Institute in Washington, created the Smithsonian Agreement which devalued the dollar to \$38 dollars an ounce, with 2.25% trading bands, and attempted to balance the world financial system using SDRs alone. It failed to impose discipline on the US government, and with no other credibility mechanism in place, the pressure against the dollar in gold continued. This resulted in gold becoming a floating asset, and in 1971 it reached \$44.20/ounce, in 1972 \$70.30/ounce and still climbing. By 1972, currencies began abandoning even this devalued peg against the dollar, though it would take a decade for all of the industrialized nations to do so. In February of 1973, the Bretton Woods currency exchange markets would close, after a last gasp devaluation of the dollar to \$44/ounce, and only would reopen in March in a floating currency regime. The collapse of the Bretton Woods system is a subject of intense debate.

Lesson 1.3 - The Gold Standard

Learning Objectives

After studying this lesson you should be able to:

- Know the History of the Modern Gold Standard
- Understand the International Financial Markets
- Define the Differing Definitions of “Gold Standard”
- Explain Effects of Gold Backed Currency
- Know the Advocates of a renewed Gold Standard
- Explain the Gold as a Reserve Today

Introduction

The **gold standard** is a monetary system in which the standard economic unit of account is a fixed weight of gold. When several nations are using such fixed unit of account then the rates of exchange between national currencies effectively becomes fixed. The gold standard may also be viewed as a monetary system in which changes in the supply and demand of gold determine the value of goods and services in relation to their supply and demand. Because of its rarity and durability gold has long been used as a means of payment. The exact nature of the evolution of money varies significantly across time and place, though it is believed by historians that gold's high value for its utility, density, resistance to corrosion, uniformity and easy divisibility made it useful as both a store of value, and a unit of account for stored value of other kinds - in Babylon a bushel of wheat was the unit of account, and a weight in gold used as the token to transport value. Early monetary systems based on grain would use gold to represent the stored value. Banking began when gold deposited in a bank could be transferred from one bank account to another by what is called a Giro system, or lent at interest.

When used as part of a hard money system, the function of paper currency is to reduce the danger of transporting gold, reduce the possibility of debasement of coins, and avoid the reduction in circulating medium to hoarding and losses. The early development of paper money was spurred originally by the unreliability of transportation and the dangers

of long voyages, as well as the desire of governments to control or regulate the flow of commerce within their control. Money backed by specie is sometimes called representative money, and the notes issued are often called certificates, to differentiate them from other forms of paper money.

Early Coinage

The first metal used as currency was silver, before 2000 BC, when silver ingots were used in trade, and it was not until 1500 years later that the first coinage of pure gold was introduced. However, long before this time gold had been the basis of trade contracts in Accadia, and later in Egypt. Silver would remain the most common monetary metal used in ordinary transactions through the 19th century.

The Persian Empire collected taxes in gold, and when conquered by Alexander the Great, this gold became the basis for the gold coinage of his empire. The paying of mercenaries and armies in gold solidified its importance: gold would become synonymous with paying for military operations, as mentioned by Niccolo Machiavelli in *The Prince* two thousand years later. The Roman Empire would mint two important gold coins: aureus, which was approximately 7 grams of gold alloyed with silver and the smaller solidus which weighed 4.4 grams, of which 4.2 was gold. The Roman mints were fantastically active — the Romans minted, and circulated, millions of coins during the course of the Republic and the Empire.

After the collapse of the Western Roman Empire and the exhaustion of the gold mines in Europe, the Byzantine Empire continued to mint successor coins to the solidus called the nomisma or bezant. They were forced to mix more and more base metal with the gold until by the turn of the millennium the coinage in circulation was only 25% gold by weight. This represented a tremendous drop in real value from the old 95% pure Roman coins. Thus, trade was increasingly conducted via the coinage in use in the Arabic world, produced from African gold: the dinar.

The dinar and dirham were gold and silver coins, respectively, originally minted by the Persians. The Caliphates in the Islamic world adopted these coins, but it is with Caliph Abd al-Malik (685-705) who reformed the currency that the history of the dinar is usually thought to begin. He removed depictions from coins, and established standard references to Allah on the coins, and fixed ratios of silver to gold. The growth of Islamic power and trade made the dinar the dominant coin from the Western coast of Africa to northern India until the late 1200s, and it continued to be one of the predominant coins for hundreds of years afterwards.

In 1284 the Republic of Venice coined their first solid gold coin, the ducat, which was to become the standard of European coinage for the next 600 years. Other coins, the florin, nobel, grosh, złoty and guinea, were also introduced at this time by other European states to facilitate growing trade. The ducat, because of Venice's pre-eminent role in trade with the Islamic world, and its ability to secure fresh stocks of gold, would remain the standard against which other coins were measured.

History of the Modern Gold Standard

The adoption of gold standards proceeded gradually. This has led to conflicts between different economic historians as to when the "real" gold standard began. Sir Isaac Newton included a ratio of gold to silver in his assay of coinage in 1717 which created a relationship between gold coins and the silver penny which was to be the standard unit of account in the Law of Queen Anne; for some historians this marks the beginning of the "gold standard" in England. However, more generally accepted is that a full gold standard requires that there be one source of notes and legal tender, and that this source is backed by convertibility to gold. Since this was not the case throughout the 18th century, the generally accepted view is that England was not on a gold standard at this time.

The Crisis of Silver Currency and Bank Notes (1750-1870)

To understand the adoption of the international gold standard in the late 19th century, it is important to follow the events of the late 1700s and early 1800s. In the late 18th century, wars and trade with China, which sold to Europe, but had little use for European goods, drained silver from the economies of Western Europe and the United States. Coins were struck in smaller and smaller amounts, and there was a proliferation of bank and stock notes used as money.

In the 1790s England suffered a massive shortage of silver coinage, and ceased to mint larger silver coins, issued "token" silver coins and over-struck foreign coins. With the end of the Napoleonic Wars, England began a massive re-coinage program that created standard gold sovereigns and circulating crowns and half-crowns, and eventually copper farthings in 1821. The re-coinage of silver in England after a long drought produced a burst of coins:

England struck nearly 40 million shillings between 1816 and 1820, 17 million half crowns and 1.3 million silver crowns. The 1819 Act for the Resumption of Cash Payments set 1823 as the date for resumption of convertibility, reached instead by 1821. Throughout the 1820s small notes were issued by regional banks, which were finally restricted in 1826,

while the Bank of England was allowed to set up regional branches. In 1833, however, the Bank of England notes were made legal tender, and redemption by other banks was discouraged. In 1844 the Bank Charter Act established that Bank of England Notes, fully backed by gold, were the legal standard. According to the strict interpretation of the gold standard, this 1844 act marks the establishment of a full gold standard for British money.

The USA adopted a silver standard based on the “Spanish milled dollar” in 1785. This was codified in the 1792 Mint and Coinage Act, and by the use by the Federal Government of the “Bank of the United States” to hold its reserves, as well as establishing a fixed ratio of gold to the US dollar. This was, in effect, a derivative silver standard, since the bank was not required to keep silver to back all of its currency. This began a long series of attempts for America to create a bimetallic standard for the US Dollar, which would continue until the 1920s. Gold and silver coins were legal tender, including the Spanish real, a silver coin struck in the Western Hemisphere.

Because of the huge debt taken on by the United States Federal government to pay for the Revolutionary War, silver coins struck by the government left circulation, and in 1806 President Jefferson suspended the minting of silver coins. Through the period from 1860 to 1871, various attempts to resurrect bi-metallic standards were made, including one based on the gold and silver franc, however, with the rapid influx of silver from new deposits, the expectation of scarcity of silver ended.

The interaction between central banking and currency basis formed the primary source of monetary instability during this period. The combination that produced economic stability was restriction of supply of new notes, a government monopoly on the issuance of notes directly and indirectly, a central bank and a single unit of value. Attempts to evade these conditions produced periodic monetary crisis - as notes devalued, or silver ceased to circulate as a store of value, or there was a depression as governments, demanding specie as payment, drained the circulating medium out of the economy. At the same time there was a dramatically expanded need for credit, and large banks were being chartered in various states, including, by 1872, Japan. The need for a solid basis in monetary affairs would produce a rapid acceptance of the gold standard in the period that followed.

Establishment of the International Gold Standard (1871-1900)

Germany was created as a unified country following the Franco-Prussian War; it established the Reichsmark, went on to a strict gold standard, and used gold mined in South Africa to expand the money supply. Rapidly most other nations followed suit, since gold became a transportable, universal, and stable unit of valuation.

Dates of Adoption of a Gold Standard

- Germany 1871
- Latin Monetary Union 1873 (Belgium, Italy, Switzerland, France)
- United States 1873 (de facto)
- Scandinavia 1875 by monetary Union: Denmark, Norway and Sweden
- Netherlands 1875
- France (internally) 1876
- Spain 1876
- Austria 1879
- Russia 1893
- Japan 1897
- India 1898
- United States 1900 (de jure)

Throughout the decade of the 1870s deflationary and depression-driven economics created periodic demands for silver currency. However, such attempts generally failed, and continued the general pressure towards a gold standard. By 1879, only gold coins were accepted through the Latin Monetary Union, composed of France, Italy, Belgium, Switzerland and later Greece, even though silver was, in theory, a circulating medium.

By creating a standard unit of account which was easily redeemable, relatively stable in quantity, and verifiable in its purity, the gold standard ushered in a period of dramatically expanded trade between industrializing nations, and “periphery” nations which produced agricultural goods — the so called “bread baskets”. This “First Era of Globalization” was not, however, without its costs. One of the most dramatic was the Irish Potato Famine, where even as people began to starve it was more profitable to export food to Britain. The result turned a blight of the potato crop into a humanitarian disaster. Amartya Sen in his work on famines theorized that famines are caused by an increase in the price of food, not by food shortage itself, and hence the root cause of trade-based famines is an imbalance in wealth between the food exporter and the food importer.

At the same time it caused a dramatic fall in aggregate demand, and a series of long Depressions in the United States and the United Kingdom. This should not be confused with the failure to industrialize or a slowing of total output of goods. Thus the attempts to produce alternate currencies include the introduction of Postal Money Orders in Britain in 1881, later made legal tender during World War I, and the “Greenback” party in the US, which advocated the slowing of the retirement of paper currency not backed by gold.

By encouraging industrial specialization, industrializing countries grew rapidly in population, and therefore needed sources of agricultural goods. The need for cheap agricultural imports, in turn, further pressured states to reduce tariffs and other trade barriers, so as to be able to exchange with the industrial nations for capital goods, such as factory machinery, which were needed to industrialize in turn. Eventually this pressured taxation systems, and pushed nations towards income and sales taxes, and away from tariffs. It also produced a constant downward pressure on wages, which contributed to the “agony of industrialization”. The role of the gold standard in this process remains hotly debated, with new articles being published attempting to trace the interconnections between monetary bases, wages and living standards.

By the 1890s in the United States, a reaction against the gold standard had emerged centered in the Southwest and Great Plains. Many farmers began to view the scarcity of gold, especially outside the banking centers of the East, as an instrument to allow Eastern bankers to instigate credit squeezes that would force western farmers into widespread debt, leading to a consolidation of western property into the hands of the centralized banks. The formation of the Populist Party in Lampasas, Texas specifically centered around the use of “easy money” that was not backed by gold and which could flow more easily through regional and rural banks, providing farmers access to needed credit. Opposition to the gold standard during this era reached its climax with the presidential campaign of Democrat William Jennings Bryan of Nebraska. Bryan argued against the gold standard in his Cross of gold speech in 1896, comparing the gold standard (and specifically its effects on western farmers) to the crown of thorns worn by Jesus at his crucifixion. Bryan ran and lost three times, each time carrying mostly Southern and Great Plains states.

Gold Standard from Peak to Crisis (1901-1932)

By 1900 the need for a lender of last resort had become clear to most major industrialized nations. The importance central banking to the financial system was proven largely by examples such as the 1890 bail out of Barings Bank by the Bank of England. Barings had been threatened by imminent bankruptcy. Only the United States still lacked a central banking system.

There had been occasional panics since the end of the depressions of the 1880s and 1890s which some attributed to the centralization of production and banking. The increased rate of industrialization and imperial colonization, however, had also served to push living standards higher. Peace and prosperity reigned through most of Europe, albeit with growing agitation in favor of socialism and communism because of the extremely harsh conditions of early industrialization.

This came to an abrupt halt with the outbreak of World War I. Britain was almost immediately forced to gradually end its gold standard, ending convertibility to Bank of England notes starting in 1914. By the end of the war England was on a series of fiat currency regulations, which monetized Postal Money Orders and Treasury Notes. The need for larger and larger engines of war, including battleships and munitions, created inflation. Nations responded by printing more money than could be redeemed in gold, effectively betting on winning the war and redeeming out of reparations, as Germany had in the Franco-Prussian War.

The United States and the United Kingdom both instituted a variety of measures to control the movement of gold, and to reform the banking system, but both were forced to suspend use of the gold standard by the costs of the war. The Treaty of Versailles instituted punitive reparations on Germany and the defeated Central Powers, and France hoped to use these to rebuild her shattered economy, as much of the war had been fought on French soil. Germany, facing the prospect of yielding much of her gold in reparations, could no longer coin gold Reichsmarks, and moved to paper currency.

The series of arrangements to prop up the gold standard in the 1920s would constitute a book length study unto themselves, with the Dawes Plan superseded by the Morgenthau Plan. In effect the US, as the most persistent positive balance-of-trade nation, loaned the money to Germany to pay off France, so that France could pay off the United States. After the war, the Weimar Republic suffered from hyperinflation and introduced Rentenmarks, an asset currency, to halt it. These were withdrawn from circulation in favor of a restored gold Reichsmark in 1942.

In the United Kingdom the pound was returned to the gold standard in 1925, by the somewhat reluctant Chancellor of the Exchequer Winston Churchill, on the advice of conservative economists at the time. Although a higher gold price and significant inflation had followed the WWI ending of the gold standard, Churchill returned to the standard at the pre-war gold price. For five years prior to 1925 the gold price was managed downward to the pre-war level, meaning a significant deflation was forced onto the economy.

John Maynard Keynes was one economist who argued against the adoption of the pre-war gold price believing that the rate of conversion was far too high and that the monetary basis would collapse. He called the gold standard “that barbarous relic”. This deflation reached across the remnants of the British Empire everywhere the Pound Sterling was still used as the primary unit of account. In the United Kingdom the standard was again abandoned in 1931. Sweden abandoned the gold standard in 1929, the US in 1933, and other nations were, to one degree or another, forced off the gold standard.

As part of this process, many nations, including the US, banned private ownership of large gold stocks. Instead, citizens were required to hold only legal tender in the form of central bank notes. While this move was argued for under national emergency, it was controversial at the time, and there are still those who regard it as an illegal and unconstitutional usurpation of private property. While this is not a mainstream view, many of the people who hold it are influential out of proportion to their numbers.

The Depression and Second World War (1933-1945)

In 1933 the London Conference marked the death of the international gold standard as it had developed to that point in time. While the United Kingdom and the United States desired an eventual return to the Gold Standard, with President Franklin Delano Roosevelt saying that a return to international stability “must be based on gold” — neither was willing to do so immediately. France and Italy both sent delegations insisting on an immediate return to a fully convertible international gold standard.

A proposal was floated to stabilize exchange rates between France, Britain, and the United States based on a system of drawing rights, but this too collapsed. The central point at issue was what value the gold standard should take. In the years that followed nations pursued bilateral trading agreements, and by 1935, the economic policies of most Western nations were increasingly dominated by the growing realization that a global conflict was highly likely, or even inevitable.

During the 1920s the austerity measures taken to re-stabilize the world financial system had cut military expenditures drastically, but with the arming of the Axis powers, war in Asia, and fears of the USSR exporting communist revolution, the priority shifted toward armament, and away from re-establishing a gold standard. The last gasp of the 19th century gold standard came when the attempt to balance the United States Budget in 1937 led to the “Roosevelt Recession”. Even such gold advocates as Roosevelt’s budget director conceded that until it was possible to balance the budget, a gold standard would be impossible.

During the period from 1939 to 1942, Britain depleted much of its gold stock in purchases of munitions and weaponry on a “cash and carry” basis from the US and other nations. This depletion of Britain’s reserve signalled to Winston Churchill that returning to a pre-war style gold standard was impractical; instead, John Maynard Keynes, who had argued against such a gold standard, became increasingly influential: his proposals, a more wide-ranging version of the “stability pact” style gold standard, would find expression in the Bretton Woods Agreement.

Post-war International Gold Standard (1946-1971)

The essential features of the gold standard in theory rest on the idea that inflation is caused by an increase in the quantity of money, an idea advocated by David Hume, and that uncertainty over the future purchasing power of money depresses business confidence and leads to reduced trade and capital investment. The central thesis of the gold standard is that removing uncertainty, friction between kinds of currency, and possible limitations in future trading partners will dramatically benefit an economy, by expanding both the market for its own goods, the solidity of its credit, and the markets from which its consumers may purchase goods. In much of gold standard theory, the benefits of enforcing monetary and fiscal discipline on the government are central to the benefits obtained, advocates of the gold standard often believe that governments are almost entirely destructive of economic activity, and that a gold standard, by reducing their ability to intervene in markets, will increase personal liberty and economic vitality.

Differing Definitions of “Gold Standard”

If the monetary authority holds sufficient gold to convert all circulating money, then this is known as a 100% reserve gold standard, or a full gold standard. Some believe there is no other form of gold standard, since on any “partial” gold standard the value of circulating representative paper in a free economy will always reflect the faith that the market has in that note being redeemable for gold. Others, such as some modern advocates of supply-side economics contest that so long as gold is the accepted unit of account then it is a true gold standard.

In an internal gold-standard system, gold coins circulate as legal tender or paper money is freely convertible into gold at a fixed price. In an international gold-standard system, which may exist in the absence of any internal gold standard, gold or a currency that is convertible into gold at a fixed price is used as a means of making international payments. Under such a system, when exchange rates rise above or fall below the fixed mint rate by more than the cost of shipping gold from one country to another, large inflows or outflows occur until the rates return to the official level. International gold standards often limit which entities have the right to redeem currency for gold. Under the Bretton Woods system, these were called “SDRs” for Special Drawing Rights.

Effects of Gold Backed Currency

The commitment to maintain gold convertibility tightly restrains credit creation. Credit creation by banking entities under a gold standard threatens the convertibility of the notes they have issued, and consequently leads to undesirable gold outflows from that bank.

The result of a failure of confidence produces a run on the specie basis, which is generally responded to by the bankers suspending specie payments. Hence, notes circulating in any “partial” gold standard will either be redeemed for their face value of gold (which would be higher than its actual value) - this constitutes a bank “run”; or the market value of such notes will be viewed as less than a gold coin representing the same amount.

In the international gold standard imbalances in international trade were rectified by requiring nations to pay accounts in gold. A country in deficit would have to pay its debts in gold thus depleting gold reserves and would therefore have to reduce its money supply. This would cause prices to deflate, reducing economic activity and, consequently, demand would fall. The resulting fall in demand would reduce imports; thus theoretically the deficit would be rectified when the nation was again importing less than it exported. This led to a constant pressure to close economies in the face of currency drains in what critics called “beggar thy neighbor” policies. Such zero-sum gold standard systems showed periodic imbalances which had to be corrected by rapid falls in output.

The gold standard, in theory, limits the power of governments to cause price inflation by excessive issue of paper currency, although there is evidence that before World War I monetary authorities did not expand or contract the supply of money when the country incurred a gold outflow. It is also supposed to create certainty in international trade by providing a fixed pattern of exchange rates. The gold standard in fact is deflationary, as the rate of growth of economies generally outpaces the growth in gold reserves. This, after the inflationary silver standards of the 1700s was regarded as a welcome relief, and an inducement to trade. However by the late 19th century, agitation against the gold standard drove political movements in most industrialized nations for some form of silver, or even paper based, currency.

Advocates of a Renewed Gold Standard

The internal gold standard is supported by anti-government economists, including extreme monetarists, Objectivists, followers of the Austrian School of Economics and even many proponents of libertarianism. Much of the support for a gold standard is related to a distrust of central banks and governments, as a gold standard removes the ability of a government to manage the value of money, even though, historically, the establishment of a gold standard was part of establishing a national banking system, and generally a central bank. The international gold standard still has advocates who wish to return to a Bretton Woods-style system, in order to reduce the volatility of currencies, but the unworkable nature of Bretton Woods, due to its government-ordained exchange ratio, has allowed the followers of Austrian economists Ludwig von Mises, Friedrich Hayek and Murray Rothbard

to foster the idea of a total emancipation of the gold price from a state-decreed rate of exchange and an end to government monopoly on the issuance of gold currency.

Many nations back their currencies in part with gold reserves, using these not to redeem notes, but as a store of value to sell in case their currency is attacked or rapidly devalues. Gold advocates claim that this extra step would no longer be necessary since the currency itself would have its own intrinsic store of value. A Gold Standard then is generally promoted by those who regard a stable store of value as the most important element to business confidence.

It is generally opposed by the vast majority of governments and economists, because the gold standard has frequently been shown to provide insufficient flexibility in the supply of money and in fiscal policy, because the supply of newly mined gold is finite and must be carefully husbanded and accounted for.

A single country may also not be able to isolate its economy from depression or inflation in the rest of the world. In addition, the process of adjustment for a country with a payments deficit can be long and painful whenever an increase in unemployment or decline in the rate of economic expansion occurs.

One of the foremost opponents of the gold standard was John Maynard Keynes who scorned basing the money supply on “dead metal”. Keynesians argue that the gold standard creates deflation which intensifies recessions as people are unwilling to spend money as prices fall, thus creating a downward spiral of economic activity. They also argue that the gold standard also removes the ability of governments to fight recessions by increasing the money supply to boost economic growth. Much of this thought has been reversed when stagflation hit the United States in the early ‘70s in contradiction to Keynes’ General Theory of Employment Interest and Money.

Gold standard proponents point to the era of industrialization and globalization of the 19th century as the proof of the viability and supremacy of the gold standard, and point to Britain’s rise to being an imperial power, conquering nearly one quarter of the world’s population and forming a trading empire which would eventually become the Commonwealth of Nations as imperial provinces gained independence.

Gold standard advocates have a strong following among commodity traders and hedge funds with a bearish orientation. The expectation of a global fiscal meltdown and the return to a hard gold standard has been central to many hedge financial theories. More moderate gold bugs point to gold as a hedge against commodity inflation, and a representation of

resource extraction, in their view gold is a play against monetary policy follies of central banks, and a means of hedging against currency fluctuations, since gold can be sold in any currency, on a highly liquid world market, in nearly any country in the world. For this reason they believe that eventually there will be a return to a gold standard, since this is the only “stable” unit of value. That monetary gold would soar to \$5,000 an ounce, over 10 times its current value, may well have something to do with some of the advocacy of a renewed gold standard, holders of gold would stand to make an enormous profit.

Few economists today advocate a return to the gold standard. Notable exceptions are some proponents of Supply-side economics and some proponents of Austrian Economics. However, many prominent economists, while they do not advocate a return to gold, are sympathetic with hard currency basis, and argue against fiat money. This school of thought includes US central banker Alan Greenspan and macro-economist Robert Barros. The current monetary system relies on the US Dollar as an “anchor currency” which major transactions, such as the price of gold itself, are measured in. Currency instabilities, inconvertibility and credit access restriction are a few reasons why the current system has been criticized, with a host of alternatives suggested, including energy based currencies, market baskets of currencies or commodities. Gold is merely one of these alternatives.

The reason these visions are not practically pursued is based on the same reasons that the gold standard fell apart in the first place: a fixed rate of exchange decreed by governments have no organic relationship between the supply and demand of gold and the supply and demand of goods.

Thus gold standards have a tendency to fall apart as soon as it becomes advantageous for governments to overlook them. By itself, the gold standard does not prevent nations from switching to a fiat currency when there is a war or other exigency, even though paradoxically gold gains in value through such circumstances as people use it to preserve value since fiat currency is typically introduced to cause inflation.

The practical matter that gold is not currently distributed according to economic strength is also a factor: Japan, while one of the world’s largest economies, depending on which measure, it has gold reserves far less than could support that economy. Finally, the quantity of gold available for reserves, even if all of it were confiscated and used as the unit of account, would put the value of gold upwards of 5,000 dollars an ounce on a purchasing parity basis. If the current holders of gold imagine that this is the price that they will be paid for giving up their gold, they are quite likely to be disappointed. For these practical reasons — inefficiency, misallocation, instability, and insufficiency of supply — the gold standard is likely to be more honoured in literature than practiced in fact.

Gold as a Reserve Today

During the 1990s Russia liquidated much of the former USSR's gold reserves, while several other nations accumulated gold in preparation for the Economic and Monetary Union. The Swiss Franc left a full gold convertible backing. However, gold reserves are held in significant quantity by many nations as a means of defending their currency, and hedging against the US Dollar, which forms the bulk of liquid currency reserves. Weakness in the dollar tends to be offset by strengthen of gold prices. Gold remains a principal financial asset of almost all central banks along side foreign currencies and government bonds. It is also held by central banks as a way of hedging against loans to their own governments as an "internal reserve".

In addition to other precious metals, it has several competitors as store of value: the US dollar itself and real estate. As with all stores of value, the basic confidence in property rights determines the selection of which one is chosen, as all of these have been confiscated or heavily taxed by governments. In the view of gold investors, none of these has the stability that gold had, thus there are occasionally calls to restore the gold standard. Occasionally politicians emerge who call for a restoration of the gold standard, particularly from the libertarian right and the anti-government left. Mainstream conservative economists such as Barros and Greenspan have admitted a preference for some tangibly backed monetary standard, and have stated that a gold standard is among the possible range of choices. Some privately issued modern notes (such as e-gold) are backed by gold bullion, and gold. Both coins and bullion are widely traded in deeply liquid markets, and therefore still serve as a private store of wealth.

In 1999, to protect the value of gold as a reserve, European Central Bankers signed the "Washington Agreement", which stated they would not allow gold leasing for speculative purposes, nor would they "enter the market as sellers" except for sales that had already been agreed upon. A selling band was set. This was intended to prevent further deterioration in the price of gold. In 2001, Malaysian Prime Minister Mahathir Mohamad proposed a new currency that would be used initially for international trade between Muslim nations. The currency he proposed was called the "gold dinar" and it was defined as 4.25 grams of 24-carat gold. Mahathir Mohamad promoted the concept on the basis of its economic merits as a stable unit of account and also as a political symbol to create greater unity between Islamic nations.

Lesson 1.4 - The European Monetary System

Learning Objectives

After studying this lesson you should be able to:

- Explain European Exchange Rate Mechanism (or ERM)
- Know the history of the EMU
- Know about the countries using the euro
- Know Non-EU Currencies Pegged to the Euro

Introduction

The **European Monetary System** (EMS) was an arrangement established in 1979 where most nations of the European Economic Community (EEC) linked their currencies to prevent large fluctuations relative to one another. After the collapse of the Bretton Woods system in 1971, the EEC countries agreed to maintain stable exchange rates by preventing exchange fluctuations of more than 2.25%. By March 1979, the EEC established European Monetary System, and created the European Currency Unit (ECU).

The basic elements of the arrangement were:

1. The ECU: a basket of currencies, preventing movements above 2.25% (6% for Italy) around parity in bilateral exchange rates with other member countries.
2. An Exchange Rate Mechanism (ERM)
3. An extension of European credit facilities.
4. The European Monetary Cooperation Fund: created in October 1972, it allocated ECUs to members' central banks in exchange for gold and US dollar deposits.

Periodic adjustments raised the values of strong currencies and lowered those of weaker ones, but after 1986 changes in national interest rates were used to keep the currencies within a narrow range. In the early 1990s the European Monetary System was strained by the differing economic policies and conditions of its members, especially the newly reunified Germany, and Britain permanently withdrew from the system. This led

to the so-called *Brussels Compromise* in August 1993, which established a new fluctuation band of +15%.

The **European Currency Unit (ECU)** was a basket of the currencies of the European Community member states, used as the unit of account of the European Community, before being replaced by the euro. The European Exchange Rate Mechanism attempted to minimize fluctuations between member state currencies and the ECU. The ECU was also used in some international financial transactions. The ECU was conceived on 13 March 1979 as an internal accounting unit. It had the ISO 4217 currency code XEU. On January 1, 1999, the euro (with the code EUR) replaced the ECU, at the value EUR 1 = XEU 1. Unlike the ECU, the euro is a real currency, although not all member states participate in its use (for details on euro membership see Euro-zone).

Until 1999, all member states that participated in the ERM, also participated in the ECU. Due to the ECU being used in some international financial transactions, there was a concern that foreign courts might not recognize the euro as the legal successor to the ECU. This was unlikely to be a problem, since it is a generally accepted principle of private international law that states determine their currencies, and that therefore states would accept the European Union legislation to that effect. However, for abundant caution, several foreign jurisdictions adopted legislation to ensure a smooth transition. Of particular importance here were the U.S. states of Illinois and New York, under whose laws a large proportion of international financial contracts are made. Both these states passed legislation to ensure that the euro was recognized as successor to the ECU.

Although the acronym ECU is formed from English words, at the same time the word *ecu* was a reference to an ancient French coin of the same name. That was one (perhaps the main) reason that a new name was devised for its successor currency, *euro*, which was felt to not favour any single language. The currency's symbol comprises an interlaced C and E, which are the initial letters of the phrase: 'European Community' in many European languages. However, this symbol was not widely used: few systems at the time could render it and in any case banks preferred (as with all currencies) to use the ISO code XEU.

The European Exchange Rate Mechanism (or ERM)

The **European Exchange Rate Mechanism (or ERM)** was a system introduced by the European Community in March 1979, as part of the European Monetary System (EMS), to reduce exchange rate variability and achieve monetary stability in Europe, in preparation for Economic and Monetary Union and the introduction of a single currency, the euro, which took place on 1 January 1999.

The ERM is based on the concept of fixed currency exchange rate margins, but with exchange rates variable within those margins. Before the introduction of the euro, exchange rates were based on the ECU, the European unit of account, whose value was determined as a weighted average of the participating currencies.

A grid (known as the Parity Grid) of bilateral rates was calculated on the basis of these central rates expressed in ECUs, and currency fluctuations had to be contained within a margin of 2.25% on either side of the bilateral rates (with the exception of the Italian lira, which was allowed a margin of 6%). Determined intervention and loan arrangements protected the participating currencies from greater exchange rates fluctuations. Ireland's participation in the ERM resulted in the Irish pound breaking parity with the Pound Sterling in 1979, as very shortly after the launch of the ERM the Pound Sterling, not at the time an ERM currency, appreciated against all ERM currencies and continued parity would have taken the Irish pound outside of its agreed band.

In 1990, the United Kingdom participated but was forced to exit the programme after the Pound Sterling came under major pressure from currency speculators led by George Soros. The ensuing crash of 16 September 1992 was subsequently dubbed "Black Wednesday". In 1993, the margin had to be expanded to 15% to accommodate monetary problems with the Italian lira and the Pound Sterling.

On 31 December 1998, the ECU exchange rates of the Euro-zone countries were frozen and the value of the euro, which then superseded the ECU on a 1:1 basis, was thus established. In 1999, **ERM 2** replaced the original ERM. The Greek and Danish currencies were part of the system, but as Greece joined the euro in 2001, the Danish krone was left as the only participant member. Currencies in ERM 2 are allowed to float within a range of $\pm 15\%$ with respect to a central rate against the euro. In the case of the krone, the Danish Central Bank keeps the exchange rate within the narrower range of $\pm 2.25\%$ against the central rate of EUR 1 = DKK 7.460 38. As of 1 May 2004, the ten National Central Banks (NCBs) of the new member countries became party to the ERM 2 Central Bank Agreement. The national currencies themselves will become part of the ERM 2 at different dates, as mutually agreed.

The Estonian *kroon*, Lithuanian *litas*, and Slovenian *tolar* were included in the ERM 2 on 28 June 2004; the Cypriot *pound*, the Latvian *lat* and the Maltese *lira* on 2 May 2005; the Slovak *koruna* on 25 November 2005. The currencies of the three largest countries which joined the European Union on 1 May 2004 (the Polish *zloty*, the Czech *koruna*, and the Hungarian *forint*) are expected to follow eventually. EU countries that have not adopted the euro must participate for at least two years in the ERM 2 before joining the Euro-zone.

The **European Monetary System 2** or EMS-2 was launched on January 1, 1999. In EMS 2 the ECU basket is being discarded and the new single currency euro has become an anchor for the other currencies participating in the ERM 2. Participation in the ERM 2 is voluntary and the fluctuation bands remain the same as in the original ERM, i.e. +15 %, once again with the possibility of individually setting a narrower band with respect to the euro. New members became Denmark and Greece. The EMS-2 is seen as a means to eventually join the European Monetary Union.

In economics, a monetary union is a situation where several countries have agreed to share a *single currency* among them. The European **Economic and Monetary Union** (EMU) consists of three stages coordinating economic policy and culminating with the adoption of the euro, the EU's single currency.

All member states of the European Union participate in the EMU. Twelve member states of the European Union have entered the third stage and have adopted the euro as their currency. The United Kingdom and Denmark have opt-outs exempting them from the transition to the third stage of the EMU. The remaining eleven member states are required to enter the third stage and adopt the euro. Under the Copenhagen criteria, it is a condition of entry for states acceding to the EU that they be able to fulfil the requirements for monetary union within a given period of time.

The 10 new countries that acceded to the European Union in 2004 all intend to join third stage of the EMU in the next ten years, though the precise timing depends on various economic factors. Similarly, those countries who are currently negotiating for entry will also take the euro as their currency in the years following their accession.

Prior to adopting the euro, a member state has to have its currency in the European Exchange Rate Mechanism (ERM 2) for two years. Cyprus, Denmark, Estonia, Latvia, Lithuania, Malta, Slovenia and Slovakia are the current participants in the exchange rate mechanism. EMU is sometimes misinterpreted to mean **European Monetary Union**.

History of the EMU

The Delors Report of 1989 (named after Jacques Delors, then President of the Commission) set out a plan to introduce the EMU in three stages and it included the creation of institutions like the European System of Central Banks (ESCB), which would become responsible for formulating and implementing monetary policy. The three stages for the implementation of the EMU were the following.

Stage One: 1 July 1990 to 31 December 1993

- On 1 July 1990, exchange controls were abolished, thus capital movements were completely liberalised in the EEC.
- The Treaty of Maastricht in 1992 established the completion of the EMU as a formal objective and set a number of economic convergence criteria, concerning the inflation rate, public finances, interest rates and exchange rate stability.
- The treaty entered into force on the 1 November 1993.

Stage Two: 1 January 1994 to 31 December 1998

- The European Monetary Institute was established as the forerunner of the European Central Bank, with the task of strengthening monetary cooperation between the member states and their national banks, as well as supervising ECU banknotes.
- On 16 December 1995, details such as the name of the new currency (the euro) as well as the duration of the transition periods were decided.
- On 16-17 June 1997, the European Council decided in Amsterdam to adopt the Stability and Growth Pact, designed to ensure budgetary discipline after creation of the euro, and a new exchange rate mechanism (ERM 2) was set up to provide stability between the euro and the national currencies of countries that had not yet entered the euro-zone.
- On 3 May 1998, at the European Council meeting in Brussels, the 11 initial countries that were to participate in the third stage from 1 January 1999 were selected.
- On 1 June 1998, the European Central Bank (ECB) was created, and in 31 December 1998, the conversion rates between the 11 participating national currencies and the euro were established.

Stage Three: 1 January 1999 and Continuing

- From the start of 1999, the euro has been a real currency, and a single monetary policy has been introduced under the authority of the ECB. A three-year transition period began before the introduction of actual euro notes and coins, but legally the national currencies already ceased to exist.
- On 1 January 2001, Greece joined the third stage of EMU.
- The euro notes and coins are finally introduced in January 2002.

Presently, the **euro** (symbol: **€**; banking code: **EUR**) is the currency of twelve European Union member states: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain, collectively known as the Euro-zone.

The euro is the result of the most significant monetary reform in Europe since the Roman Empire. Although the euro can be seen simply as a mechanism for perfecting the Single European Market, facilitating free trade among the members of the Euro-zone, it is also regarded by its founders as a key part of the project of European political integration. Monaco, San Marino, and the Vatican City, which formerly used the French franc or the Italian lira as their currency, now use the euro as their currency and are licensed to mint their own euro coins in small amounts, even though they are not EU states. The euro is also used for payment of debt in other European non-EU jurisdictions such as Montenegro, Kosovo and Andorra.

The euro is administered by the European System of Central Banks (ESCB), composed of the European Central Bank (ECB) and the Euro-zone central banks operating in member states. The ECB (headquartered in Frankfurt am Main, Germany) has sole authority to set monetary policy; the other members of the ESCB participate in the printing, minting and distribution of notes and coins, and the operation of the Euro-zone payment system.

- ***Characteristics***

The euro is divided into 100 **cents**. In the English language, the form “cent” is officially required to be used in legislation in the singular and in the plural, though the natural plural *cents* is recommended for use in material aimed at the general public. All euro coins have a **common side** showing the denomination (value) and a **national side** showing an image specifically chosen by the country that issued it; the monarchies often have a picture of their reigning monarch; other countries usually have their national symbols. All different coins can be used in all the participating member states: for example, a euro coin bearing an image of the Spanish king is legal tender not only in Spain, but also in all the other nations where the euro is in use. There are €2, €1, 50c, 20c, 10c, 5c, 2c and 1c coins, though the latter two are not generally used in Finland or the Netherlands (but are still legal tender). Euro banknotes have a common design for each denomination on both sides. Notes are issued in the following amounts: €500, €200, €100, €50, €20, €10, and €5. Some higher denominations are not issued in some countries, though again, are legal tender.

There is a Europe-wide clearing system for large transactions, set up prior to the launch of the euro called TARGET. For retail payments, several arrangements are used and the general rule is that an intra-euro-zone transfer shall cost the same as a domestic one.

Credit card charging and ATM withdrawals within the euro-zone also are charged as if they were domestic. Paper- based payment orders, such as cheques, are still domestic based.

- ***Transition***

The euro was established by the provisions in the 1992 Maastricht Treaty on European Union that was used to establish an economic and monetary union. In order to participate in the new currency, member states had to meet strict criteria such as a budget deficit of less than three per cent of GDP, a national debt ratio of less than sixty per cent of GDP, combined with low inflation and interest rates close to the EU average. Due to differences in national conventions for rounding and significant digits, all conversion between the national currencies had to be carried out using the process of triangulation via the euro. The *definitive* values in euro of these subdivisions (which represent the exchange rates at which the currency entered the euro) are as follows:

- 13.7603 Austrian schillings (ATS)
- 40.3399 Belgian francs (BEF)
- 2.20371 Dutch gulden (NLG)
- 5.94573 Finnish markka (FIM)
- 6.55957 French francs (FRF)
- 1.95583 German Mark (DEM)
- 0.787564 Irish pounds (IEP)
- 1936.27 Italian lire (ITL)
- 40.3399 Luxembourg francs (LUF)
- 200.482 Portuguese escudos (PTE)
- 166.386 Spanish pesetas (ESP)

The above rates were determined by the Council of the European Union, based on a recommendation from the European Commission based on the market rates on 31 December 1998, so that one ECU (European Currency Unit) would equal one euro. (The European Currency Unit was an accounting unit used by the EU, based on the currencies of the member states; it was not a currency in its own right.) These rates were set by Council Regulation 2866/98 (EC), of 31 December 1998. They could not be set earlier, because the ECU depended on the closing exchange rate of the non-euro currencies (principally the pound sterling) that day. Greece failed to meet the criteria for joining initially, so it did not join the common currency on 1 January 1999. It was admitted two years later, on 1 January 2001, at the following exchange rate:

- **340.750 Greek drachmas (GRD)**

The procedure used to fix the irrevocable conversion rate between the drachma and the euro was different, since the euro by then was already two years old. While the conversion rates for the initial eleven currencies were determined only hours before the euro was introduced, the conversion rate for the Greek drachma was fixed several months beforehand, in Council Regulation 1478/2000 (EC), of 19 June 2000.

The currency was introduced in non-physical form (travellers' cheques, electronic transfers, banking, etc.) at midnight on 1 January 1999, when the national currencies of participating countries (the Euro-zone) ceased to exist independently in that their exchange rates were locked at fixed rates against each other, effectively making them mere non-decimal subdivisions of the euro. The euro thus became the successor to the European Currency Unit (ECU).

Participation in the Economic and Monetary Union

Countries using the Euro

At present the member states officially using the euro are Austria, Belgium, Finland, France (except Pacific territories using the CFP franc), Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain. Overseas territories of some Euro-zone countries, such as French Guiana, Réunion, Saint-Pierre et Miquelon, and Martinique, also use the euro. These countries together are frequently referred to as the "Euro-zone", "Euro-land" or more rarely as "Euro-group".

Many of the foreign currencies that were pegged to European currencies are now pegged to the euro. For example, the Cape Verdean escudo used to be pegged to the Portuguese escudo, but is now pegged to the euro. Bosnia-Herzegovina uses a convertible mark which was pegged to the Deutsche mark but is now pegged to the euro. Similarly the CFP franc, CFA franc and Comorian franc, all once pegged to the French franc, are now pegged to the euro. The euro is widely accepted in Cape Verde already on an informal basis, and in November 2004, during a meeting in Portugal, the prime minister of Cape Verde considered formally adopting the euro as his country's currency. Also East Timor resumed using the Portuguese Escudo as legal tender in 1999, when the escudo was already a subdivision of the euro. There was no changeover as the USD was later introduced as sole legal tender in the territory. Since December 2002, North Korea has switched from the dollar as its official currency for all foreign transactions to the euro. The euro has since then also replaced the dollar in large parts of the black market and in shops where the dollar was used earlier.

In total, the euro is the official currency in 31 states and territories. Also, 27 states and territories that have a national currency are also pegged to the euro including fourteen West African countries including Senegal and Cameroon, three French overseas territories including French Polynesia and New Caledonia, two African island countries where the currency was formerly pegged to the Portuguese or French currency, three former Communist countries where the currency was pegged to the German mark including Macedonia. Morocco, Cyprus, Denmark, Estonia and Hungary are also pegged to the euro.

EU Members Outside the Euro-Zone

The ten newest European Union members are required by their treaties of accession to eventually use the euro, as eventual adoption of the euro was part of their accession agreements. Cyprus, Estonia, Latvia, Lithuania, Malta, Slovenia and Slovakia have already joined Denmark in the European Exchange Rate Mechanism, ERM 2. The United Kingdom and Sweden have no plans at present to adopt the euro; however Sweden, unlike the UK and Denmark, does not have a formal opt-out from the monetary union (the third stage of EMU) and therefore must, in theory at least, convert to the euro at some point. Notwithstanding this, on 14 September 2003, a Swedish referendum was held on the euro, the result of which was a rejection of the common currency. The Swedish government had argued that such a line of action was possible since one of the requirements for Euro-zone membership is a prior two-year membership of the ERM 2. By simply choosing to stay outside the exchange rate mechanism, the Swedish government is provided a formal loophole avoiding the theoretical requirement of adopting the euro. Sweden's major parties continue to believe that it would be in the national interest to join.

Effects of a Single Currency

The introduction of a single currency for many separate countries presents a number of advantages and disadvantages for the participating nations. Opinions differ on the actual effects of the euro so far, as most of them will take years to understand.

- **Removal of Exchange Rate Risk**

One of the most important benefits of the euro will be lowered exchange rate risks, which will make it easier to invest across borders. The risks of changes in the value of respective currencies have always made it risky for companies or individuals to invest or even import/export outside their own currency zone. Profits could be quickly eliminated as a result of exchange rate fluctuations. As a result, most investors and importers/exporters have to either accept the risk or “hedge” their bets, resulting in further costs on the financial

markets. Consequently, it is less appealing to invest outside one's own currency zone. The Euro-zone greatly increases the potentially "exchange-risk free" investment area. Since Europe's economy is heavily dependent on intra-European exports, the benefits of this effect can hardly be overstated. This is particularly important for countries whose currencies have traditionally fluctuated a great deal such as the Mediterranean nations.

- **Removal of Conversion Fees**

A benefit is the removal of bank transaction charges that previously were a cost to both individuals and businesses when exchanging from one national currency to another. Although not an enormous cost, multiplied thousands of times, the savings add up across the entire economy.

- **Deeper Financial Markets**

Another significant advantage of switching to the euro is the creation of deeper financial markets. Financial markets on the continent are expected to be far more liquid and flexible than they were in the past. There will be more competition for and availability of financial products across the union. This will reduce the financial servicing costs to businesses and possibly even individual consumers across the continent. The costs associated with national debt will also decrease. It is expected that the broader, deeper markets will lead to increased stock market capitalisation and investment. Larger, more internationally competitive financial and business institutions may arise.

- **Price Parity**

Another effect of the common European currency is that differences in prices - in particular in price levels - should decrease. Differences in prices can trigger arbitrage, e.g. artificial trade in a commodity between countries purely to exploit the price differential, which will tend to equalise prices across the euro area. This should also result in increased competition between companies, which should help to contain inflation and which therefore will be beneficial to consumers. Similarly, price transparency across borders should benefit consumers find lower cost goods or services.

- **Macroeconomic Stability**

An important side-effect of the euro will be greater macroeconomic stability for the entire continent. Much of Europe has been susceptible to economic problems such as inflation throughout the last 50 years. Inflation is a very damaging phenomenon from

most of society's perspective. It discourages investment, can cause social unrest, and causes problems for taxation. However, many countries are unable or unwilling to deal with serious inflationary pressures. They often have other priorities that compromise their ability to deal with inflation. Sometimes their economic clout is simply insufficient.

However, there have been models, particularly with largely independent central banks, that have successfully countered inflation. One such bank was the Bundesbank in Germany; since the European Central Bank is modelled off of the Bundesbank, is independent of the pressures of national governments, and has a mandate to keep inflationary pressures low. Many economists foresee a period of increasing price stability in Europe after the euro's introduction.

- **Less-specific Monetary Policy**

Some economists are concerned about the possible dangers of adopting a single currency for a large and diverse area. Because the Euro-zone has a single monetary policy, and so a single interest rate, set by the ECB, it cannot be fine-tuned for the economic situation in each individual country (however, prior to the introduction of the euro, exchange rates were already very much in sync after the latest European currency crisis in the early 1990s). Public investment and fiscal policy in each country is thus the only way in which government-led economic stimulus can be introduced specific to each region or nation.

This inflexible interest rate might stifle growth in some areas, while over-promoting it in others. The result could be extended periods of economic depression in some areas of the continent, disadvantaged by the central interest rate. Given such a situation resentment and friction within the community, and toward the bank, might well increase. Others point out that in today's globalised economy individual countries do not have power to effectively manage their monetary policy, as it creates other imbalances. This effect was already visible in the last European currency crises of 1992, when the Bundesbank was effectively coordinating monetary policy for the whole continent.

The Euro and Oil

The Euro-zone consumes more imported petroleum than the United States. This would mean that more euros than US dollars would flow into the OPEC nations, but oil is priced by those nations in US dollars only. There have been frequent discussions at OPEC about pricing oil in euros, which would have various effects, among them, requiring nations to hold stores of euros to buy oil, rather than the US dollars that they hold now. Venezuela

under the presidency of Hugo Chávez has been a vocal proponent of this scheme, despite selling most of its own oil to the United States. If the exchange rate and the oil price move in different directions, oil price changes are magnified. Pricing oil in euros would nullify this dependency of European oil prices on the USD/EUR exchange rate.

Euro Exchange Rate Against the U.S. Dollar

After the introduction of the euro, its exchange rate against other currencies, especially the US dollar, declined heavily. At its introduction in 1999, the euro was traded at USD1.18; on 26 October 2000, it fell to an all time low of \$0.8228 per euro. It then began what at the time was thought to be a recovery; by the beginning of 2001 it had risen to nearly \$0.96. It declined again, although less than previously, reaching a low of \$0.8344 on 6 July 2001 before commencing a steady appreciation. In the wake of U.S. corporate scandals, the two currencies reached parity on 15 July 2002, and by the end of 2002 the euro had reached \$1.04 as it climbed further.

Currencies Pegged to Euro

Part of the euro's strength in the period 2001-2004 was thought to be due to more attractive interest rates in Europe than in the United States. The US Federal Reserve had maintained lower rates than the European Central Bank for these years, despite key European economies, notably Germany, growing relatively slowly or not at all. This is attributed in part to the ECB's duty to check inflation across the Euro-zone, which in high-performing countries such as Republic of Ireland is above the ECB's target.

A key factor is that a number of Asian currencies are rising less against the dollar than is the euro. In the case of China, the *renminbi* was until recently pegged against the dollar, whilst the Japanese yen is supported by intervention (and the threat of it) by the Bank of Japan. This means much of the pressure from a falling dollar is translated into a rising euro.

The euro's climb from its lows began shortly after it was introduced as a cash currency. In the time between 1999 and 2002, euro-sceptics believed that the weak euro was a sign that the euro experiment was doomed to fail. It may be that its weakness in this period was due to low confidence in a currency that did not exist in "real" form. While the overt conversion to notes and coins had not yet occurred, it remained possible that the project could fail. Once the euro became "real" in the sense of existing in the form of cash confidence in the euro rose and the increasing perception that it was here to stay helped increase its value. This effect was probably significant in the euro's decline and recovery between 1999 and 2002, but other factors are more significant since then.

Another factor in the early decline of the euro was that many investors and central banks sold large portions of their legacy (national) currency holdings once the irrevocable exchange rates were set, as the goal of holding multiple currencies is to dampen losses when one currency falls.

Once the exchange rates between Euro-zone countries were pegged against each other, holdings in German marks and French francs (for example) became identical. There is also some reason to believe that significant sums of illegally held monies were sold for dollars to avoid an official and public exchange for euros. Despite the euro's rise in value, as well as the value of other major and minor currencies, the US trade deficits continue to rise.

There is speculation that the strength of the euro relative to the dollar might encourage the use of the euro as an alternative reserve currency. Moves by central banks with major reserve currency holdings such as those of India or China to switch some of their reserves from dollars to euros, or even of OPEC countries to switch the currency they trade in from dollars to euros, will further reinforce the dollar's decline. In 2004, the Bank for International Settlements reported the proportion of bank deposits held in euros rising to 20%, from 12% in 2001, and it is continuously rising. The falling dollar also raises returns for US investors from investing in foreign stocks, encouraging a switch which further depresses the dollar. The rise in the euro should dampen Euro-zone exports, but there is little sign of this happening yet. The main reason is that the currencies of Euro-land's major world-wide customers are also seeing their currencies rise relative to the dollar.

Countries with the Euro as Currency

There are 12 members in the Euro-zone: Austria, Belgium, Finland, France (except pacific territories using CFP franc), Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, and Spain. The European Central Bank is responsible for the monetary policy within the Euro-zone.

- **Nations with Formal Agreements with the EU**

Monaco, San Marino, and Vatican City also use the euro, although they are not officially euro members or members of the EU. (They previously used currencies that were replaced by the euro.) They now mint their own coins, with their own national symbols on the reverse. These countries use the euro by virtue of agreements concluded with EU member states (Italy in the case of San Marino and Vatican City, France in the case of Monaco), on behalf of the European Community.

- **Nations Without Formal Agreements with the EU**

Andorra does not have an official currency and hence no specific euro coins. It previously used the French franc and Spanish peseta as *de facto* legal tender currency. There has never been a monetary arrangement with either Spain or France; however, the EU and Andorra are currently in negotiations regarding the official status of the Euro in Andorra. As of 1 December 2002, North Korea has replaced the US dollar with the euro as its official currency for international trading. The euro also enjoys popularity domestically, especially among resident foreigners.

- **Non-Euro-Zone EU Countries**

The other 13 countries of the European Union that do not use the euro are: Denmark, Sweden, the United Kingdom, and the ten member states that joined the Union on 1 May 2004; namely Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, and Slovenia. Denmark and the United Kingdom got special derogations in the original Maastricht Treaty of the European Union.

Non-EU Currencies Pegged to the Euro

- In 1999 the Bulgarian currency was redenominated (1 new lev = 1000 old levs) and the value of the lev was fixed to one German mark, therefore its value has since been fixed in relation to the euro.
- Cape Verde's currency was pegged to the Portuguese escudo, and now the euro.
- Bosnia and Herzegovina's currency, the Convertible Mark, was pegged to the German mark (and now the Euro).
- The CFA, Comorian and CFP francs, used in former French colonies, were pegged to the French franc, and now the euro.

Fiscal Policy

For their mutual assurance and stability of the currency, members of the Euro-zone have to respect the Stability and Growth Pact, which sets agreed limits on deficits and national debt, with associated sanctions for deviation. **The European System of Central Banks (ESCB)** is composed of the European Central Bank (ECB) and the national central banks (NCBs) of all 25 EU Member States. The **Stability and Growth Pact** is an agreement by European Union member states related to their conduct of fiscal policy, to facilitate and maintain Economic and Monetary Union of the European Union.

Convergence Criteria

Convergence criteria, also known as the Maastricht criteria, is the criteria for European Union member states to enter the third stage of European Economic and Monetary Union (EMU) and adopt the euro. The 4 main criteria are based on Article 121(1) of the European Community Treaty. Those member countries that are to adopt the euro need to meet certain criteria which include:

1. **Inflation rate:** No more than 1½ % higher than the 3 best-performing member states.
 2. **Government finance:**
- **Annual Government Deficit**

The ratio of the annual government deficit to gross domestic product (GDP) must not exceed 3% at the end of the preceding fiscal year. If not, it is at least required to reach a level close to 3%. Only exceptional and temporary excesses would be granted for exceptional cases.

- **National Debt**

The ratio of gross national debt to GDP must not exceed 60% at the end of the preceding fiscal year. Even if the target cannot be achieved due to the specific conditions, the ratio must have sufficiently diminished and must be approaching the reference value at a satisfactory pace.

3. **Exchange rate:** Applicant countries should have joined the exchange-rate mechanism (ERM 2) under the European Monetary System (EMS) for 2 consecutive years and should not have devaluated its currency during the period.
4. **Long-term interest rate:** The nominal long-term interest rate must not be more than 2% higher than the 3 best-performing member states. The purpose of setting the criteria is to maintain the price stability within the Euro-zone even with the inclusion of new member states.

The IMF and the World Bank

The IMF and the World Bank are institutions in the United Nations system. They share the same goal of raising living standards in their member countries. Their approaches

to this goal are complementary, with the IMF focusing on macroeconomic issues and the World Bank concentrating on long-term economic development and poverty reduction.

What are the purposes of the Bretton Woods Institutions?

The International Monetary Fund and the World Bank were both created at an international conference convened in Bretton Woods, New Hampshire, United States in July 1944. The goal of the conference was to establish a framework for economic cooperation and development that would lead to a more stable and prosperous global economy. While this goal remains central to both institutions, their work is constantly evolving in response to new economic developments and challenges.

The IMF's Mandate

The IMF promotes international monetary cooperation and provides policy advice and technical assistance to help countries build and maintain strong economies. The Fund also makes loans and helps countries design policy programs to solve balance of payments problems when sufficient financing on affordable terms cannot be obtained to meet net international payments. IMF loans are short and medium term and funded mainly by the pool of quota contributions that its members provide. IMF staff are primarily economists with wide experience in macroeconomic and financial policies.

The World Bank's Mandate

The World Bank promotes long-term economic development and poverty reduction by providing technical and financial support to help countries reform particular sectors or implement specific projects—for example, building schools and health centers, providing water and electricity, fighting disease, and protecting the environment. World Bank assistance is generally long term and is funded both by member country contributions and through bond issuance. World Bank staff are often specialists in particular issues, sectors, or techniques.

Framework for Cooperation

The IMF and World Bank collaborate regularly and at many levels to assist member countries and work together on several initiatives. In 1989, the terms for their cooperation were set out in a concordat to ensure effective collaboration in areas of shared responsibility.

High-Level Coordination

During the Annual Meetings of the Boards of Governors of the IMF and the World Bank, Governors consult and present their countries' views on current issues in international economics and finance. The Boards of Governors decide how to address international economic and financial issues and set priorities for the organizations.

A group of IMF and World Bank Governors also meet as part of the Development Committee, whose meetings coincide with the Spring and Annual Meetings of the IMF and the World Bank. This committee was established in 1974 to advise the two institutions on critical development issues and on the financial resources required to promote economic development in low-income countries.

Management Consultation

The Managing Director of the IMF and the President of the World Bank meet regularly to consult on major issues. They also issue joint statements and occasionally write joint articles, and have visited several regions and countries together.

Staff Collaboration

The staffs of the IMF and the Bank collaborate closely on country assistance and policy issues that are relevant for both institutions. The two institutions also often conduct country missions in parallel and staff participate in each other's missions. IMF assessments of a country's general economic situation and policies provide input to the Bank's assessments of potential development projects or reforms.

Similarly, Bank advice on structural and sectoral reforms is taken into account by the IMF in its policy advice. The staffs of the two institutions also cooperate on the conditionality involved in their respective lending programs.

The 2007 external review of Bank-Fund collaboration led to a Joint Management Action Plan on World Bank-IMF Collaboration (JMAP) to further enhance the way the two institutions work together. Under the plan, Fund and Bank country teams discuss their country-level work programs, which identify macro-critical sectoral issues, the division of labor, and the work needed from each institution in the coming year. A recent review of JMAP implementation underscored the importance of these joint country team consultations in enhancing collaboration.

Reducing Debt Burdens

The IMF and World Bank also work together to reduce the external debt burdens of the most heavily indebted poor countries under the Heavily Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI). The objective is to help low-income countries achieve their development goals without creating future debt problems. IMF and Bank staff jointly prepare country debt sustainability analyses under the Debt Sustainability Framework (DSF) developed by the two institutions.

Reducing Poverty

In 1999, the IMF and the World Bank initiated the Poverty Reduction Strategy Paper (PRSP) approach—a country-led plan for linking national policies, donor support, and the development outcomes needed to reduce poverty in low-income countries. PRSPs underpin the HIPC Initiative and most concessional lending by the IMF (in particular, the Extended Credit Facility (ECF)) and World Bank.

Monitoring progress on the MDGs. Since 2004, the Fund and Bank have worked together on the Global Monitoring Report (GMR), which assesses progress needed to achieve the UN Millennium Development Goals (MDGs). The report also considers how well developing countries, developed countries, and the international financial institutions are contributing to the development partnership and strategy to meet the MDGs.

Assessing Financial Stability

The IMF and World Bank are also working together to make financial sectors in member countries resilient and well regulated. The Financial Sector Assessment Program (FSAP) was introduced in 1999 to identify the strengths and vulnerabilities of a country's financial system and recommend appropriate policy responses.

WTO

The prolonged recession before the World War II in the west was due to the decades of protectionism followed by the industrialized countries. This led to the conduct of negotiations in 1947 among 23 countries in order to prevent the protectionist policies and to review the economies from recession. These negotiations of the conference resulted in the General Agreement on Tariffs and Trade (GATT) among the participating countries. Thus GATT has its origin in 1947 at a conference in Geneva.

URUGAY Round and Dunkel Proposal

Uruguay round of multilateral; trade negotiations was initiated in September 1986 and concluded on the 15th September, 1993. Mr Arthur Dunkel, the then Director General of GATT submitted a proposal on the 20th December, 1991 popularly known as Dunkel Proposals which envisages trade liberalization in many areas like TRIPS and TRIMS, and other services. An agreement regarding multilateral trading system was finally signed in the Marrakesh, Morocco, on 15th April, 1994. Governments of the member countries of GATT concluded Uruguay round negotiations on the 15th December, 1994. In order to implement the final Act of Uruguay round agreements of GATT the World Trade Organization (WTO) was established on January 1, 1995.

Differences between GATT and WTO

GATT	WTO
It is a set of rules and multilateral agreements	Its permanent institution
It was designed with an attempt to establish International Trade Organization	It is established to serve its own purpose
It was applied on a provisional basis	Its activities are full and permanent
Its rules are applicable to trade in merchandise goods.	Its rules are applicable to trade in merchandise and trade in services and trade in related aspects of intellectual property
GATT was originally a multilateral instrument, but plurilateral agreements were added at a later stage.	Its agreements are almost multilateral
Its dispute settlement system was not faster and automatic	Its dispute settlement system is fast and automatic

There are a number of ways of looking at the World Trade Organization. It is an organization for trade opening. It is a forum for governments to negotiate trade agreements. It is a place for them to settle trade disputes. It operates a system of trade rules. Essentially, the WTO is a place where member governments try to sort out the trade problems they face with each other. The WTO was born out of negotiations, and everything the WTO does is the result of negotiations. The bulk of the WTO's current work comes from the 1986–94 negotiations called the Uruguay Round and earlier negotiations under the General Agreement on Tariffs and Trade (GATT). The WTO is currently the host to new negotiations, under the 'Doha Development Agenda' launched in 2001.

Location	Geneva, Switzerland
Established	1 January 1995
Created by	Uruguay Round negotiations (1986-94)
Membership	159 countries on 2 March 2013
Budget	196 million Swiss francs for 2011
Secretariat staff	640
Head	Roberto Azevêdo (Director-General)

Source: WTO

Functions of WTO

The World Trade Organization is expected to play its role in the following areas:

Administering WTO trade agreements

- Forum for trade negotiations
- Handling trade disputes
- Monitoring national trade policies
- Technical assistance and training for developing countries
- Cooperation with other international organizations

The WTO is run by its member governments. All major decisions are made by the membership as a whole, either by ministers (who usually meet at least once every two years) or by their ambassadors or delegates (who meet regularly in Geneva).

While the WTO is driven by its member states, it could not function without its Secretariat to coordinate the activities. The Secretariat employs over 600 staff, and its experts — lawyers, economists, statisticians and communications experts — assist WTO members on a daily basis to ensure, among other things, that negotiations progress smoothly, and that the rules of international trade are correctly applied and enforced.

Trade Negotiations

The WTO agreements cover goods, services and intellectual property. They spell out the principles of liberalization, and the permitted exceptions. They include individual countries' commitments to lower customs tariffs and other trade barriers, and to open and keep open services markets. They set procedures for settling disputes. These agreements are

not static; they are renegotiated from time to time and new agreements can be added to the package. Many are now being negotiated under the Doha Development Agenda, launched by WTO trade ministers in Doha, Qatar, in November 2001.

Implementation and Monitoring

WTO agreements require governments to make their trade policies transparent by notifying the WTO about laws in force and measures adopted. Various WTO councils and committees seek to ensure that these requirements are being followed and that WTO agreements are being properly implemented. All WTO members must undergo periodic scrutiny of their trade policies and practices, each review containing reports by the country concerned and the WTO Secretariat.

Dispute Settlement

The WTO's procedure for resolving trade quarrels under the Dispute Settlement Understanding is vital for enforcing the rules and therefore for ensuring that trade flows smoothly. Countries bring disputes to the WTO if they think their rights under the agreements are being infringed. Judgements by specially appointed independent experts are based on interpretations of the agreements and individual countries' commitments.

Building Trade Capacity

WTO agreements contain special provision for developing countries, including longer time periods to implement agreements and commitments, measures to increase their trading opportunities, and support to help them build their trade capacity, to handle disputes and to implement technical standards.

The WTO organizes hundreds of technical cooperation missions to developing countries annually. It also holds numerous courses each year in Geneva for government officials. Aid for Trade aims to help developing countries develop the skills and infrastructure needed to expand their trade.

Outreach

The WTO maintains regular dialogue with non-governmental organizations, parliamentarians, other international organizations, the media and the general public on various aspects of the WTO and the ongoing Doha negotiations, with the aim of enhancing cooperation and increasing awareness of WTO activities.

The WTO agreements are lengthy and complex because they are legal texts covering a wide range of activities. But a number of simple, fundamental principles run throughout all of these documents. These principles are the foundation of the multilateral trading system.

Non-Discrimination

A country should not discriminate between its trading partners and it should not discriminate between its own and foreign products, services or nationals.

More Open

Lowering trade barriers is one of the most obvious ways of encouraging trade; these barriers include customs duties (or tariffs) and measures such as import bans or quotas that restrict quantities selectively.

Predictable and Transparent

Foreign companies, investors and governments should be confident that trade barriers should not be raised arbitrarily. With stability and predictability, investment is encouraged, jobs are created and consumers can fully enjoy the benefits of competition — choice and lower prices.

More competitive Discouraging ‘unfair’ practices, such as export subsidies and dumping products at below cost to gain market share; the issues are complex, and the rules try to establish what is fair or unfair, and how governments can respond, in particular by charging additional import duties calculated to compensate for damage caused by unfair trade.

More Beneficial for Less Developed Countries

Giving them more time to adjust, greater flexibility and special privileges; over three-quarters of WTO members are developing countries and countries in transition to market economies. The WTO agreements give them transition periods to adjust to the more unfamiliar and, perhaps, difficult WTO provisions.

Protect the Environment

The WTO’s agreements permit members to take measures to protect not only the environment but also public health, animal health and plant health. However, these

measures must be applied in the same way to both national and foreign businesses. In other words, members must not use environmental protection measures as a means of disguising protectionist policies.

Overview of the WTO Secretariat

The responsibility of the WTO Secretariat is to provide top-quality, independent support to WTO member governments on all of the activities that are carried out by the Organization, and to serve the WTO with professionalism, impartiality and integrity. The Secretariat is a multicultural team of highly-qualified individuals who possess the wide range of skills, knowledge and experience required to handle the Secretariat's responsibilities and to work together as an efficient and diligent international civil service.

Role of the Secretariat

The WTO Secretariat, with offices only in Geneva, has 629 regular staff and is headed by a Director-General. Since decisions are taken by Members only, the Secretariat has no decision-making powers. Its main duties are to supply technical and professional support for the various councils and committees, to provide technical assistance for developing countries, to monitor and analyze developments in world trade, to provide information to the public and the media and to organize the ministerial conferences. The Secretariat also provides some forms of legal assistance in the dispute settlement process and advises governments wishing to become Members of the WTO.

The Secretariat staff of includes individuals representing about 70 nationalities. The professional staff is composed mostly of economists, lawyers and others with a specialization in international trade policy.

There is also a substantial number of personnel working in support services, including informatics, finance, human resources and language services. The total staff complement is composed almost equally of men and women. The working languages of the WTO are English, French and Spanish.

The Appellate Body was established by the Understanding on Rules and Procedures Governing the Settlement of Disputes to consider appeals to decisions by Dispute Settlement panels. The Appellate Body has its own Secretariat. The seven-member Appellate Body consists of individuals with recognized standing in the fields of law and international trade. They are appointed to a four-year term, and may be reappointed once

WTO Secretariat Budget for 2013

The WTO derives most of the income for its annual budget from contributions by its Members. These are established according to a formula based on their share of international trade.

The WTO and the Millennium Development Goals

The United Nations Millennium Development Goals (MDGs) are eight international development goals that all 192 members and a number of international organizations have agreed to achieve by the year 2015 to end poverty. They include reducing extreme poverty, reducing child mortality rates, fighting disease epidemics, such as HIV/AIDS, and creating a global partnership for development.

The main goal that concerns the WTO is MDG 8, building a global partnership for development. However, WTO activities are also relevant to other goals, such as MDG 1, whose aim is to eradicate extreme poverty and hunger. In fact, the MDGs cannot be seen in isolation: they are all interconnected.

Foreign Exchange Exposers

Foreign exchange transactions include: spot and forward foreign exchange purchase and sale transactions; the spot and forward foreign exchange transaction; and the foreign exchange option transactions. More specifically, foreign exchange transactions include: the spot foreign exchange purchase and sale and foreign exchange transaction business for personal customers; the spot, forward and option-date forward foreign exchange transaction business for corporate customers; and the foreign currency option transaction.

1. Spot Foreign Exchange Purchase and Sale

The spot foreign exchange purchase and sale refers to the service of spot foreign exchange purchases and spot foreign exchange sales. The spot foreign exchange purchase refers to the business where the designated outlet buys foreign exchange from institutional customers based on the spot exchange rate in the foreign exchange purchase and sale market, and pays the equivalent amount in RMB. The spot foreign exchange sale refers to the business where the designated outlet sells foreign exchange to institutional customers based on the spot exchange rate in the foreign exchange purchase and sale market, and collects the equivalent amount in RMB. It is applicable towards the domestic institutions and the other customers, and approved by the State Administration of Foreign Exchange.

2. Forward Foreign Exchange Purchase and Sale

The forward foreign exchange purchase and sale refers to the business where the customer signs a forward foreign exchange purchase and sale agreement with the Bank, specifying the foreign exchange currency, amount, terms and exchange rate of a future foreign exchange purchase/sale transaction. This is put in place in order to handle the foreign exchange purchase and sale business pursuant of the currency, amount and exchange rate specified in the agreement at the time provided in the agreement.

This product enables the customer to preserve the asset value and avoid exchange rate risks by locking up the future exchange rate at present (i.e. locking up the future cost or gains).

3. Option-Date Forward Foreign Exchange Purchase and Sale

The option-date forward foreign exchange purchase and sale refers to the business where the customer may deliver the foreign exchange purchase and sale transaction according to a given exchange rate on any working day during a future period of time. It is a forward foreign exchange purchase and sale business in which the customer may select the delivery date.

In the event of an uncertain date of delivery, this product enables the customer to enjoy a fixed exchange rate for his/her foreign exchange purchase and sale transaction during a certain period of time and thus, completely locks up the currency exchange rate risks. It is applicable for the customers who have the foreign exchange purchase and sale demand in the future but are not sure about the concrete delivery date.

4. Super-Forward Foreign Exchange Purchase and Sale

The super-forward foreign exchange purchase and sale refers to the foreign exchange purchase and sale businesses with an value date of one year later. In other words, the customer appoints a delivery date that is one year later, and entrusts the bank to buy (or sell) RMB and sell (or buy) a certain foreign currency on the delivery date.

The customer entrusts the bank to convert funds between RMB and a foreign currency based on the exchange rate specified in the agreement on a certain delivery rate. It decides a fixed exchange rate for a future delivery on the transaction date, and thus, fully locks up the currency exchange risks. It is applicable to the customers who need to purchase or sell foreign exchange on a certain date in the future.

5. Spot Foreign Exchange Transaction

The spot foreign exchange transaction refers to the business where both trading parties handle a foreign exchange transaction based on the spot exchange rate of the foreign exchange market, and handles the delivery on the second working date after the transaction date (T+2). The customer may handle the transaction based on the spot exchange rate of the market or entrust a bank to send the pending order.

6. Forward Foreign Exchange Transaction

The forward foreign exchange transaction refers to foreign exchange transactions where both trading parties conclude a transaction on a given future delivery date based on the exchange rate provided in the agreement. The customer may completely fix the exchange rate of a future delivery on the transaction date and thus, lock up the exchange risk. It is applicable to the customers who need to handle a foreign exchange transaction on a certain date of the future.

7. Option-Date Foreign Exchange Transaction

The option-date foreign exchange transaction enables the customer to deliver a foreign exchange transaction at a given exchange rate on any working day during a future period of time. It is a forward foreign exchange transaction in which the customer may select the delivery date.

In the event of an uncertain date of delivery, this product enables the customer to enjoy a fixed exchange rate during a future period of time on the transaction date and thus, completely locks up the exchange rate risks. It is applicable for the customers who have the foreign exchange transaction demand in the future but are not sure about the concrete delivery date.

8. Super-Forward Foreign Exchange Transaction

The super-forward foreign exchange transaction refers to the forward foreign exchange transactions with an value date of one year later. In other words, the customer appoints a certain delivery date that is one year later and entrusts the bank to buy a currency and sell another currency on that delivery date. In this transaction, the customer decides a fixed exchange rate for a future delivery transaction on the transaction date and thus, fully locks up the exchange rate risks. It is applicable to the customers who need to handle a foreign currency transaction on a certain date in the future.

9. Foreign Exchange Options Transactions

The foreign exchange options transaction entitles the buyer to buy or sell a certain amount of foreign currency funds to the seller based on the agreed exchange rate during a certain period of time in the future, after he/she pays a certain sum of option fees. Meanwhile, the buyer in the agreement is also entitled not to execute the above-mentioned transaction agreement. After the customer pays a certain sum of option fees, he/she gets the right to buy a certain amount of fund in a certain currency or sell another amount of fund in another currency to the bank based on an agreed exchange rate. The customer may also get the option fees income by selling his/her options agreement on the transaction date.

Foreign Exchange Exposure

Alder and Dumas define foreign exchange exposure as 'the sensitivity of changes in the real domestic currency value of assets and liabilities or operating income to unanticipated changes in exchange rates'.

Foreign Exchange Risk

Maurie D Levi describes foreign exchange risk as 'the variance of the domestic currency value of an asset, liability, or operating incomes that is attributed to unanticipated changes in exchange rates.' exposure can be classified into 3 kinds on the basis of the nature of item that is exposed, measurability of the exposure and the timing of estimation of exposure. They are:

1. **Transaction Risk:** It is the risk that arises from foreign currency denominated transactions which an entity is committed to complete. In other words it arises from contractual, foreign currency, future cash flows. It arises when export prices are fixed in foreign currency terms, or imports the invoiced in foreign currencies.
2. **Translation Risk:** It arises from the need to convert values of assets and liabilities denominated in a foreign currency into the domestic currency. If a company has a different proportions of assets and liabilities denominated in particular currencies, then exchange rate movements are likely to have varying effects on the value of these assets and liabilities. It is also referred to as accounting exposure. This fact makes the measurement of translation exposure dependent on the accounting policies followed for the purpose of converting the foreign currency values of assets and liabilities into the domestic currency.
3. **Economic Risk:** it is a result of economic consequences of exchange rate movements on the value of a firm.

Factors Influencing the Exchange Rate for a Currency

The exchange rate between 2 currencies is determined primarily by supply and demand in the foreign exchange market. Demand comes from individual, firm and governments who want to buy a currency and supply comes from those who want to sell it.

Supply and demand for currencies are in turn influenced by:

- Rate of inflation
- Rate of interest
- BOP
- Speculation
- Government Policy

Other factors that influence the exchange rate through their relationship with the items identified above. For example:

- a] Total income and expenditure (demand) in the domestic economy determines the demand for goods, including:
 - i) Imported goods;
 - ii) Good produced in the country which would otherwise be exported if demand for them did not exist in the home markets;
- b] Output capacity and the level of employment in the domestic economy might influence the balance of payments, because if the domestic economy has full employment already, it will be unable to increase its volume of production for exports;
- c] The growth in the money supply influences interest rates and domestic inflation.

Self Assessment Questions

1. Discuss in detail the basic functions of financial markets
2. Outline in detail the major players in financial markets
3. Explain in detail the different types of existing financial market structures
4. Distinguish between Securities Markets
5. What is Bretton Woods System? Explain its objectives.
4. Explain the design of the Bretton Woods System

5. Narrate the circumstances leading to the creation of Bretton Woods Monetary System.
6. Analyze the features of Bretton Woods System and discuss the causes for its |breakdown
7. Explain the devaluation of the dollar twice and the failure of Smithsonian Agreement
8. What is “Paper Gold”?
9. Give the differing definitions of “Gold Standard”
10. Explain the effects of Gold Backed Currency

UNIT – II

Unit Structure

Lesson 2.1 - Creation of Euro – Currency Markets an over view

Lesson 2.2 - Creation of Euro Dollar

Lesson 2.3 - Emergence of Global Currency Markets

Lesson 2.4 - The size and structure of European Markets

Lesson 2.5 - Regulatory Systems of Foreign Exchange

Lesson 2.6 - Major Instruments

Learning Objectives

- To trace the creation and growth of Euro – currency markets.
- To discuss the composition of instruments death with in Euro markets.
- To discuss the emergence of Global Currency Market
- To analyze the size and structure of European Market
- To explain the determinants of interest rates in Euro Markets.
- To provide an overview of the Major Instruments.

Lesson 2.1 - Creation of Euro – Currency Markets an Over View

Introduction

A cursory glance of the “World Map” will show that “EURASIA” is one of the big continents. In this continent if we cut across – South to North – at the point of the SUEZ CANAL we get 2 parts. The one on our right is ‘ASIA’ and the other on the left is “EUROPE”.

Our current study is about the Europe, now comprising of 25 countries as on 1.5.2004. This includes the countries already enjoying membership in the “European Union” and some, which propose to join before the end of 2007.

Creation of Euro – Currency Markets

To have a clear understanding of the functioning the Euro-Currency, it is imperative to know the meaning and concept of “Euro-Dollar”, because all transactions up to 1960 were in Euro-Dollar only. A strict line of demarcation will only be artificial.

An American Dollar, outside America is called as Euro-Dollar. But presently the non-dollar denominated deposits have a widespread existence in the Euro-Currency markets. Also much of the market is now located outside Europe.

The term Euro-Dollar refers to all such financial assets and liabilities denominated in U.S. Dollars, but which are transacted outside the territory of the U.S.A. It was precisely to overcome the difficulties arising out of the monetary regulations which did not become applicable on such markets outside the geographical transitory of U.S.A. that these markets have come into existence and are making tremendous growth since then 1960.

There were many restrictions imposed by the Federal Reserve Board of U.S.A. on the U.S. commercial Banks on payment of interest takes on deposits received from individuals. Such instructions could, no longer, be imposed on the Euro-Dollar deposits.

Another regulation which got amended in 1969 was responsible for a rapid growth of Euro-Dollar market. The regulation (Similar to the concept of cash Reserve Ratio in the Indian context) required that only U.S. banks situated in its territory required to maintain a

“Reserve against deposits” whereas their foreign branches as well as foreign banks deposits in U.S. banks need not keep any such reserve.

The policy to tighten the domestic availability of credit with the Banks, made the position of U.S.’S domestic bank to find them selves in a difficult situation.

Added to this, a nearly double the interest – rate prevailing abroad in the foreign branches of U.S. Banks encouraged the depositors to move away from the banks – domestic to foreign branches. Due to the non-availability of adequate credit domestically, the banks in U.S.A. were forced to borrow from the other European Banks, to meet their domestic demand from their customers, such increased demand pushed up the interest – rates in Euro Banks.

The other restrictions aimed at (a) controlling the capital outflows from U.S. and (b) improving the BOP situation were equally responsible for the rapid growth of Euro – Dollar market.

The Financial institutions operating the Euro-Currency markets may be identified as under.

(i) The U.S. Banks

After the second world – war (1939 – 45) the American Banks wanted to participate directly to help their multi-national corporations abroad. This job was assigned earliest to the foreign banks.

(ii) The Consortia Movement

This involves in some kind of a Joint venture with other Banks with the objective of Euro-Financing business. These ventures were known as “Consortium Banks”. These are intended to provide medium term loans to the international borrowers.

(iii) European Banking Response

Most of the major European Banks did not consider the establishment of American Banks’ foreign branches simply as an operationally convenient move but a kind of strategy since they witnessed a break – down of the earlier “Correspondent branching system”.

The Euro – Currency market acts as an “inter-bank money bank” at international level. It provides an adequate credit to private and public companies.

Euro – Currency Instruments

(A) Euro – Dollar Deposits

The deposits in Euro-Dollar markets have 2 types of options (1) Regular time deposits involving very limited period (i.e. overnight, call money or other accounts) and (2) Certificates of Deposits (CDs) involving large amounts (Usually above \$1,00,000) and with longer maturities (Between 3 to 6 months).

A cable or telex message transfers the amounts from the Bank's account in U.S. to the borrowers account anywhere. Confirmation of transaction is only paper work. The flow time is very short so as to prevent the owner from losing large sums of interest.

(B) Euro – Dollar Loans

The normal range in which these loans vary, is found to be between \$ 5,00,000 upto \$ 100 millions or even more. The maturity period ranges between 30 days upto 5 to 7 years. However the loan amount as well as the re – payment period depends on the relationship and goodwill between the borrower and lender.

The Interest rates on the Euro – Dollar loans are floating – rates rather than fixed rates, particularly for medium and longer maturities of about 3 years and beyond, generally the Interest Rate will be the LIBOR rates plus 1.5% The payment of interest is fixed at 6 monthly intervals, until maturity. The Euro – Dollar loans protect the Euro – Bank's project also (LIBO Rates means London inter Bank Offer Rates).

Composition of the Euro – Currency Markets

The Bank for International Settlements (BIS) gives the details of the Euro – currencies transacted between the countries of the Euro – Currency area.

There are 2 categories of countries involved with the Euro – Currency area (1) Countries of “Inside area” and those of “Outside area” This classification is done on the basis of reporting of figures done by only 8 countries especially in the “inside area”. They are – Belgium, Finance, Germany, Italy, Netherlands, Sweden, Switzerland & U.K.

The “outside area” Countries are – west – European countries, East European countries, Canada, Japan, Latin America, Middle – East, U.S.A. and others.

Determinants of Euro – Currency Rates

There is a basis for the lenders of Dollars into the Euro – market, namely, the money market rates, they would obtain in the U.S.A. Generally the interest rates would be revised in response to a rise in the demand in domestic market or domestic country. The ultimate borrowers would rather prefer borrowing from the euro market, since the need not require to keep minimum compensating balances. Normally, the borrower would be willing to offer a slightly higher interest on such Euro – Loans. The Banks will not bother paying higher interest on their Dollar deposits than their U.S. Counter parts.

If we make a comparison between the interest rates on 60 to 89 days Certificates of Deposits (CDS) in the U.S. Visa – Vis the Euro Dollar rates for Similar maturity, it may be observed that the Euro – Dollar interest rate would be above its counter part of the CD rate in U.S. What determines the fluctuations in the size of the spread of Euro – Dollar rates over the U.S. rates? There are 2 important causes (1) The U.S. Regulations of Banking System on the international Capital outflows and (2) the fear of possible collapse in the Euro – Dollar markets.

This market has gained strength due to 2 reasons (1) The U.S. regulation policies announced during 1969 in U.S. and (2) The credit squeeze policy. Free convertibility of Euro – Currencies into U.S. Dollars have helped the development of Euro – Dollar market.

Relationship Between Domestic and Euro Currency Markets

The interest rates in the national and Euro – currency markets cannot be independently determined. The extent to which there are additional costs, taxes, or risks involved in moving dollars between the New York and London markets will have a proportionate effect on the interest differential. Suppose such is not the case, then, naturally, the arbitrageurs would obtain funds in the low cost markets and lend the same in the higher – return – market. There is a very minimal cost of shifting funds from the U.S. domestic market to the Euro markets. The difference is due to the currency controls or the risk involved in such movement.

Euro – Currency Spreads

The term “Spreads” represents the margin between lending and deposit rates During the past 3 decades, the lending rates have been lowest mainly because of the following factors.

1. Lack of reserve requirements.
2. Regulatory expenses are either non – existent or very minimal.
3. No compulsory lending to some priority borrowers at concessional rates.
4. Information collection and processing is done quickly and with least cost since most of the borrowers are well – known.

Maturity Analysis

The Bank for International Settlements started publishing information bi – annually since 1978, entitled. The maturity Distribution of International Bank lending.

There were 2 fundamental reasons

- (1) The less developed countries were facing outstanding debts to the international banks and
- (2) The information published by the world bank and the organisation for Economic cooperation and Development (O.E.C.D.) on external debt position of various countries is relatively out – dated and less comprehensive when compared with the “Bank for International Settlements (BIS) data.

The ‘Maturity Period’ refers to the residual time period remaining of the bank claims but not their original maturities. The claims for maturity period are classified into 3 categories.

1. Less than and including one year.
2. Above one year and upto and including 3 years and
3. Above three years.

International Bond Market

This is defined as a market for bonds which are sold anywhere in the world but not in the geographical territory of the country of currency in which it is denominated.

Mostly the funds raised by the borrowers in such market consist of foreign currencies i.e., other than the borrowers own currency for example, a U.S. company borrowing Euro – Dollars, outside U.S.

Classification of International Bond Market

1. Euro Bond market and
2. Foreign Bond market.

A bond issued is said to be a “Euro – Bond issue if such bonds are mainly sold in other countries than the country of origin. A foreign bond is one which is placed by a domestic syndicate, on the market of a single country and is denominated in that countries currency.

Qualifications of a Non – Resident

1. Government or government Agencies or political sub – divisions which are not located in the country of issue.
2. International organisations like the International Monetary Fund “and the “International Bank for Re-construction and Development”.
3. Officially sponsored international enterprises except when their registered office is in the concerned country.

The Bond Issues were started in New York. Some of the attractions for borrowers in New York included,

1. Quick and efficient system of under – writing.
2. Lower interest rates thus reduce the cost of borrowing and.
3. Large and adequate supply.

The interest rate disparity between the U.S. domestic market and the Euro Dollar market was due to

- (1) The presence of investors willing to arbitrage between these 2 markets and
- (2) Because of the discontinuation of the discriminatory poling by the U.S. wherein it used to impose withholding taxes only on the foreign investors.

The placement of Euro – Bond issue was done through on under-writing group and there was a growing popularity for privilege placed issues due to merits like quickness, simplicity etc.

During the sixties and first half of seventies, approximately 75% of the Euro – Bonds were dollar – denominated. Later, there has been a fall in the share of dollar denominated issues following a decrease in the dollar value. Consequently, non – dollar issues mainly in Japanese yen and the Deutsche Mark have increased.

Type of Euro – Bonds

Classification of Euro – Bonds.

1. Straight Euro – Bonds
2. Euro – Bonds with more currencies.
 - (a) Multiple Currency bonds
 - (b) EMV Bonds
 - (c) Unit of Account bonds
 - (d) Parallel Bonds

Though the pre – fix “Euro” gives an impression that such bonds are confined to the European countries, the “Euro Bond” Market is truly international as those bonds are sold to investors around the world and such issues need not comply with the national regulations and controls.

Straight Euro – Bonds represent a substantial part of the Euro Bond market in which the Bonds are issued with a single currency. However, later, the bonds involving more than one currency have started occupying an important position in the Euro – Bond Market.

Sometimes, the creditor loses, if and only if all the currencies included in the multiple currency contract depreciate simultaneously against others which are not included. As an example, consider a Japanese leader - bank buying such multiple currency bond and opting payment in the form of U.S. Dollars, or British pounds or Italian liras. If all these three currencies depreciate against, say, the Yen, then it loses and Vice versa. Anyhow the gains are maximized and losses minimized in the event of any exchange rate variations.

European Monetary Union (EMU) bonds, also referred to as the “European Currency Union Bonds” are also multiple Currency Bonds”. The difference being there are 6 major reference currencies. For the borrower the basic advantage is that these EMU bonds bear a lower interest rate than the previous type of bonds. The main disadvantage is an obligation to compensate the creditor for the difference in exchange rate appreciation of these 6 currencies.

For the lender, there is enough protection since in the event of devaluation, he is entitled to obtain repayment in the least devalued currency and similarly he demands in case of appreciation repayment in the form of the most unvalued currency.

Secondary Markets for Euro Bonds

Secondary markets refer to the sale of bonds or any other security, which is already bought for the first time in a primary market and has been present only for name's sake in Euro – Bond market. But, because of the price quotations both buying and selling prices for various Euro – Bonds being made by the commercial banks, security firms and Bond brokers the secondary trading has become easiest and gaining more popularity.

There is a 3 tier structure in the issue of Euro bonds, consisting of

- (1) Issue Managers
- (2) Under writers and
- (3) Sellers.

In the case of U.S.A., the under – writers must purchase or “Swallow” the unsold portion of the issue, while in Eurobond, under writing, the underwrites make their “best efforts” to sell. They have wider options in the event of portions of the bond issue remaining unsold, including the cancellation of the unsold part if the under writers are reluctant to purchase.

Large sums can be raised at a stroke and the funds can be easily re – distributed across the countries it intends. A second option which is relatively risky and less preferable, could be that separate issues may be made in the needed countries.

Euro Bond and Euro Currency – A Comparison

A borrower has two options between the Euro Bonds and Euro currencies. There are certain merits and demerits of processing loans in the form of Euro currencies as well as Euro bonds, depending upon certain prevailing conditions.

Eurobonds issues have the choice of fixed as well as floating rates. The Fixed Rate Bonds have their own advantages since the currency inflows and outflows can be offset with a calculated rate. The interest rate on Euro Currency loans is variable. It benefits the borrower, if interest declines and vice versa.

The Euro – currency loans have to be repaid in a relatively smaller time – periods less than loans from Euro Bond market. Euro Currency loans with multiple currencies provide an easier opportunity to change over from one currency to another at stipulated dates, while it involves some complications in the case of Euro Bonds. The Euro Currency loans can be raised quickly while it involves a relatively longer time for raising loans through the Euro Bonds.

Functions of Euro Currency Markets

1. Cheap Resource of Working Capital

Euro currency loans attract lesser interest than the loans of the domestic economy. Interest rates are lowest because overhead costs are lower. Since the dealings are between banks with good credit – rating, the costs of credit checking and processing are less. The lending rates can – thus, be fixed lower than the domestic market. Similarly, it is possible to fix deposit rates higher than in the domestic markets.

2. Liquidity

The financial institutions find it highly profitable to hold their idle resources in Euromarkets. Since there are lesser restrictions in the markets, the investors can make investments in “bearer” securities. It has an added advantage in the form of absence of tax withholding on interest. Most of these deposits have maturities ranging from less than one day to a few months. On an average, about 80% of these deposits have the maturity of 6 months.

3. Facilities of International Trade

They provide easy loans which facilitate International Trade. Most of the Banks prefer this form of financing to the traditional forms like the letter of credit (LC). Much of the preference for Euro Currencies arise from the lower interest rates and the absence of emphasis on procedural formalities. Considering the attractiveness of these funds, there has been a sizable increase in the volume of transactions in these markets.

4. Euro Debt Markets

These markets can be studied under 2 broad classifications

- (a) Euro Dollar loans and
- (b) Euro bond markets.

4(a). Euro Dollar Loans

The demand for Euro – Dollar loans was pushed up during 1960, indirectly by the restriction imposed in obtaining loans within the U.S. These restrictions were the result of a voluntary restraint programme adopted in 1965. It was followed by certain mandatory controls in 1968. These structures controlled the creation of loans within the U.S. Borrowers are, therefore, forced to look for funds outside the U.S. The Euro – Dollar loans provided the much needed alternate source of funds.

From 1963 to 1974, The U.S. “Interest – Equalization Tax” was in vogue. The tax was a levy on U.S. residents earnings on foreign securities. To equalize the expenditure to a U.S. resident lender on account of the levy, the foreign borrowers were forced to offer higher interest. Euro – Dollar loans did not attract the interest – equalisation as a result the interest rates offered were much lower.

Euro currency loans, irrespective of the currency in which it is denominated, are easier to obtain as compared to the loans denominated in home currencies since it is also possible to obtain a loan of any currency within a country (e.g, Pound, Mark, Yen etc.,) in New York itself, it is easier for the borrowers to borrow locally than to approach the home market of a currency individually (i.e., Pounds in London, Marks in Germany, Yen in Tokyo etc.,)

4(b). Euro Bonds

These bonds are of more recent origin. They are unsecured bearer debt instruments with maturity of 5 years or more. The bond is sold in the markets other than those in the country in whose currency it is issued.

Since Euro Bonds are not regulated strictly, their issue – costs are lower than those of domestic issues. As such they had become an excellent source of raising long term capital. The issue of the bonds is generally made simultaneously in several markets on behalf of international borrowers by syndicates.

Other Types of Euro Currency Instruments

a) Bank Deposits

These are conventional deposits of Euro – currencies in Banks. Usually the period of maturity is either 30 days or 90 days. They are seldom made for periods longer than 90 days. Interest rates are pre – fixed on the basis of the duration of the deposit.

5. SDR denominated Deposits

Euro – Currency deposits may be denominated in Special Drawing Rights (SDR) of the International Monetary Fund. They are non – negotiable deposits with specific maturity dates. They are, however, not as popular as Euro currency Deposits.

6. Certificates of Deposits (CDs)

They are negotiable instruments, actively traded in the secondary markets. They are not term – deposits, they offer a highest rate of liquidity.

7. International Banking Facility

These are separate set of accounts with a Bank. They can accept foreign currency deposits. If used to make loans to foreigners, they do not require insurance covers. In such cases, the reserve requirements too are waived. Withdrawals can be made offer giving 2 days notice.

8. Euro – Dollar Futures

When the assets and liabilities of Euro banks are not equal in terms of volume and maturity, they are subject to risks of exchange rate fluctuations. Euro Dollar Futures market helps Euro Banks to avoid much risks by making a future sales.

Currency Options

A currency option is an arrangement between an “option holder” and an ‘Option writer” The option holder is the buyer and the option writer is the seller of an option. A currency option gives the buyer the right, but not the obligation, to either buy or sell a specified quantity of one currency in exchange for another at a pre – determined exchange rate, known as the “strike price”. However, the option to buy or sell must be exercised on or before a specified expiry date. Though the holder has no obligation to increase an option, the writer of the option must comply with its terms and should be prepared to buy or sell the underlying currency when a holder decides to exercise and option. Now, in what follows, a brief description is provided on the salient features of the currency option.

Features of Currency Option

Currency options are of 2 types, viz, (1) Over The Counter (OTC) options and (2) Exchange Traded Options, (OTC) options can be arranged individually with a Bank, whereas

the Exchange Traded option can be purchased through a broker on options exchange such as The Philadelphia Stock Exchange (PHLX), Chicago Mercantile Exchange (CME) etc.,

Call Option Vs Put Option

A call option gives its holder the right but not the obligation, to buy the specified amount or quantity of a currency usually against the U.S.\$ at the strike price. On the other hand, a put option gives its holder the right to U.S.\$

Quantity of Currency

The option agreement specifies the Quantity of currency an option buyer can purchase or sell. In the case of “Exchange Trade options”, the quantity is a standard amount. For example, on PHLX, the currency options traded are, currently restricted to the following against the U.S.Dollars.

Option	Quantity
Pound Sterling	31,250
Australian Dollar	A\$50,000
Canadian Dollar	C\$50,000
Japanese Yen	6,250,000
ECU's	ECVS 65,500
Deutsche Mark	DM 62,500
Swiss Franc	SFr 62,500
French Franc	FFr 250,000

Strike Price of the Currency

The Exchange Rate at which the holder has the right, but not the obligation, to exchange the currencies. When an option is the strike price must be higher, or lower or exactly the same as the current spot rate. Thus a strike price could be (1) at – the – money (2) in the money and (3) out of the money.

At – the - Money - Option

An option whose strike price is the same as the current market exchange rate. An at the money option would be used by a customer who wants to guarantee today's rate while allowing himself some profit potential, if the exchange rates were to move in his favour.

In – the – Money - Option

A currency option whose strike – rate is more favourable than the current spot – rate. Normally this type of option would attract a high premium, as the holder can make an immediate exchange profit. By exercising his right.

Expiry Date

The date on which the right to exercise the option ends.

Summary

There has been an introduction which traced the resource behind the evolution of the Euro Dollar market, its growth, its popularity etc., The Euro Dollar deposits and loans and the Corresponding constituents in each of them were noted.

A list of countries which were traditionally involved with the Euro currency market was presented. They were classified into the “inside area” and “outside area”.

Later, how the U.S. Money market interest rates influence the Euro – market interest – rates was observed. Euro Currency spreads and maturities have been discussed. The concept of international bond market was explained and its constituents, namely, the Euro Bonds Market and the foreign Bond market were discussed at length within the Euro – Bond market, the various types of bonds involving a single and multiple currencies, their characteristics and advantages were noted. The functioning institutions which deal with them has been explained.

Also, a comparative analysis of obtaining loans from bonds and from Euro Currency has been made. Finally, the topic was wound up with some aspects like who are the major borrowers of loans from the Euro – Bond market, which sectors got financed with such loans, in which currencies, majority of bond issues have been made and which countries formed a major share in marketing the Euro – Bonds etc.,

In general, a fairly good idea was given about the 2 institutions such as the “Euro – Bond market” as well as the “Euro – Currency market”.

Lesson 2.2 - Creation of Euro Dollar

Introduction

In order to understand the “creation of Euro – Dollar” it is necessary to trace the history of the economic scenario from 1944, because, before the establishment of Dollar Standards, there were some efforts made by the world community to standardize the exchange rate as “Euro Dollar”

The background was that for a long time, say since 1930, the U.S. Dollar was ruling the international money market. In Europe, originally there were 12 countries which had a lot of international business.

The U.S. dollar has been considered as the generally recognized currency number one, because, after 1930, the U.S. Dollar has not been devalued. Even now, in the international business, the countries quote the prices of their exportable products only in terms of U.S. Dollar.

Some International Institutions

- 1) The International Monetary Fund (I.M.F).
- 2) The International Bank for Reconstruction and Development, (I.B.R.D) or world Bank.

These were the outcome of the historical and significant international conference held in 1944 at a place called “ Bretton woods”, “Bretton woods conference” to charter a new international financial system, to replace the than prevailing gold standard.

This famous conference saw the birth of the I.M.F. and W.B. The purpose of I.N.F. has been to lend money for its poor members to pay for the deficit Balance of Payment. Similarly the world Bank (W.B.) was established with the prime objective of restructuring and rehabilitating the war – ravaged economies of the world, through financial aid.

A significant outcome of the Bretton woods conference was the adoption of Gold Exchange and Dollar Standards.

Under the gold Exchange standard of 1944, the currencies of all other countries were priced or pegged in terms of the U.S. Dollar and the U.S. Dollar was in turn priced in terms of gold. The U.S. was required to maintain gold reserves, while other countries were required to maintain gold reserves, while other countries were required to have a reserve of United States Dollar (USD)

After 1968 until 1973, it was possible to convert the foreign currencies only into Dollars, the whole system was suitably termed as the Dollar standard.

Under the Dollar Standard, whenever there was an increase in demand for any currency, the central bank was required to supply the currency. The strength of U.S. Dollar was on account of its increased demand for making payment for imports by countries.

Another notable factor in the history of the creation of Euro Dollar was that the organisation of Petroleum exporting Countries (OPEC) had large scale receipts of USD. The U.S. was able to attract much of these dollars and hence, these Dollars were popularly termed as “Petro Dollars”.

There was the establishment of a lending institution in Europe, called The Emergency Fund. The share capital of this fund was contributed by all countries. As usual, the U.S. has taken the major part of the share capital, by sending U.S. Dollar to Europe.

The U.S. Dollar which goes out of U.S. to Europe for this “Emergency Fund” was called as “Euro Dollar”

This is how the so – called Euro Dollar was created

Following this nomenclature, other countries followed. For example “Euro – Yen” of Japan, “Euro – Lira” of Italy, “Euro – Marks” of Germany etc., These different currencies in these new names formed the capital of the famous lending institutions like The International Monetary Fund and The International Bank for Reconstruction and Development (now called as World Bank)

In a similar manner, other Countries belonging to the Group of Ten also followed. They are (1) Belgium (2) Canada (3) France (4) West Germany (5) Italy (6) Japan (7) Netherlands (8) Sweden (9) U.K. and (10) Switzerland.

In all their share of the capital of the European Emergency Fund they have attributed the adjective “Euro” for their Currency.

Moreover, Since 1st January 1986, the Value of one “Special Drawing Right” (SDR) was based on a basket of currencies, viz, US Dollar, German Mark Japanese yen, U.K. Pound and the French Franc whenever any member country of I.M.F. goes in for a borrowal, they are using common name “Euro Dollar”, which will be converted into their national currency later.

The world Bank also follows the nomenclature “Euro Dollar” for giving loans to member countries to reconstruct their economies, which were in a bad condition as a consequence of II world war. (Most of these countries are still in European Union).

Later on, in the History of the creation of “Euro Dollar” we find a lot of Improvement, like “The Group of Seven”. This is the group of countries which were lending and borrowing in terms of “Euro Dollar”. They are the richest and industrialised nations. They are (1) Japan (2) West Germany (3) France (4) U.K. (5) Italy (6) Canada and (7) U.S.A.

This group of seven had proposed to build up a U.S. Dollar 50 Billion “emergency bail out fund” which would be used to help countries facing acute financial problems. For such lending the term Euro – Dollar was used.

Euro Dollar Markets

This market is spread over Europe, Middle East and Asia. Short term Euro markets are called as Euro Dollar Markets. Any currency, held outside its home country is referred to as Euro – Dollar – Currency. For example U.S.Dollar, outside U.S.A. is always called as “Euro Dollar” of course, this is based on their share in the capital of the “European Emergency Fund”.

Americans prefer to hold their Dollars outside the U.S. This may be attributed sometimes, to the numerous financial service, provided by foreign (especially European) Banks as compared with American Banks as well as the regulations and restrictions on capital out flow by the U.S. Similarly, at times, the U.S. may force restrictions on the Americans refraining them from depositing in foreign securities.

In such cases, it would be advantages for the Americans to have their dollar deposits outside the U.S. and they can use their “Euro – Dollar” deposits, whenever they require it without any fear of any restrictions, laid down by the U.S. Government.

These “Euro – Dollar Deposits” gained popularity with most of the American corporations outside U.S. also, especially when the exchange restrictions were imposed on residence in the 1960s. Between the 1960s and 1970s, the U.S. Banks and other financial

institutions had to abide by the restrictions placed on the maximum rate of interest that they could pay on the deposits. Particular interest are the “Q” and “M” regulations placed by the U.S. Federal Reserve Board.

The “Q” regulations restricted the interest rates on deposits. But the U.S. Banks, outside U.S. were not subject to such restrictions. This had attracted large volumes of Dollar deposits outside the U.S.

The “M” regulation stipulated, holding of reserves against deposits. These regulations were not applicable to deposits with overseas branches of U.S. Banks.

Yet another reason for Dollar deposits in other countries was the absence of deposit insurance. The Dollar deposits inside the U.S. were required to be covered by deposit insurance.

The Euro – Dollar Loans

The demand for the Euro – Dollar loans was pushed up during 1960s, indirectly by the restrictions imposed in obtaining loans within the U.S. The restrictions were the result of a voluntary restraint programme adopted in 1965. It was followed by certain mandatory controls in 1968. Borrowers are forced to look for funds outside the U.S. consequently the “Euro Dollar Loans” provided the much needed alternate source of Funds.

From 1963 to 1974, there was a levy of the interest equalization Tax within the U.S. for the local U.S. Dollar deposits. But the “Euro – Dollar loans” did not attract this tax and therefore the interest rates offered were lower.

“Euro Dollar Bonds”

These are of more recent origin after 1974. They are the unsecured bearer instruments with a maturity of 5 years and more. Since these Euro Dollar Bonds are not regulated strictly, their issue costs are lower than those of domestic issues. Hence they had become an excellent source of issues for raising the long term capital.

“Euro Dollar Futures”

When the assets and liabilities of Euro – Banks are not equal in terms of volume and maturity, they are subject to the risk of Exchange rate fluctuations. “The Euro dollar Futures” markets help Euro Banks to avoid much risks by making a “future’ sales.

Foreign Exchange Markets for Euro Dollars

These markets have shot up into prominence as a natural response to the growing volume of International Trade. These markets facilitate the conversion of one currency into another, especially in Europe area, for various purposes like trade, payments for services, developmentsl projects, speculation etc.,

Estimates put the total volume of trade done in a day to nearly over a trillion. This was a larger or bigger figure than the stock markets of the world. Besides the conversion of various countries into Euro Dollar, the foreign exchange markets provide services like the extension of credit and holding of other facilities also.

When we speak of International Trade, we know that a country would prefer to import goods for which it does not have a “Comparative cost advantage”, while exporting those goods for which it has a comparative advantage over others. Normally\, there is a time gap between the dispatch of goods and receipt of money. Therefore the Euro Dollar credit servicing and the conversion of Currencies within Europe is facilitated by the Euro dollar foreign exchange markets.

Constitutents of “Euro Dollar Exchange Markets

These markets have no physical structure. This is because there is no common place where people can assemble to buy and sell the Euro Dollars. Most of the transactions are done over the counter (OTC), via Telephone, Telex or cable.

There is also no fixed trading time. Trading is done 24 hours a day all the days of the year. By and large, London, New York, Singapore and Tokyo are the largest foreign exchange trading centres for Euro Dollar.

The Market Makers for Euro Dollar

1. Banks which are engaged in the conversion of currencies on behalf of this customer.
2. Non – Banking institutions that are engaged in exchanging currencies for certain specific purposes.
3. Speculators who are engaged in buying and selling currencies to take advantage of the exchange rate fluctuation and
4. Arbitragers engaged in arbitrage activities to take advantage of the price differentials in various exchange markets.

Operations of Market Makers for Euro Dollar

Foreign Exchange Banks operate in 2 levels. In the first i.e the retail level the banks deal with individuals and corporations, The transactions for purchase and sale of currencies are between the banks and its customers.

In the second level, the transactions are wholesale in nature. This is done in the inter – bank market. Most of the operations are done directly by banks. However, at times, the services of the Foreign Exchange Brokers are taken.

The Euro – Currency Instruments

(A) Euro Dollar Deposits

The depositors in the Euro – Dollar markets have basically 2 types of options.

1. Regular time – deposits involving very limited periods i.e., over – night call money or other accounts and.
2. The Certificates of Deposits (CDs) involving larger amounts (usually above 1,00,000 Euro – Dollars) and with longer maturities between 3 to 6 months.

The flow – time for such transfers of funds is expected to be very short so as to prevent the owner from losing larger sums of interest.

(B) Euro – Dollar Loans

Based upon the past transactions over a few decades, the normal range in which these loans vary, is found to be between \$ 5,00,000 upto \$ 100 Million and or even more. The maturity period ranges between 30 days to 5 to 7 years. However there are flexibilities in the duration and modes of advancing loans and it all depends upon the nature of relationship the borrower has with the Euro - Banks.

With regard to the aspects of interest – rates an the Euro – Dollar loans, these are floating rates rather than fixed. It is so, particularly for medium and longer maturities of about 3 years and beyond. Since these Euro – Banks themselves borrow substantial funds between them at the London Inter Bank offer Rates (LIBOR), they, I inturn, offer the loans to their borrowers at typically 1.5% over the LIBOR rate, established at six – monthly intervals, until maturity. It protects the Euro – Banks profits.

(C) Euro – Dollar Spreads

The term “Spread” represents the margin between lending and deposit rates. During the past 3 decades, it has been observed that the lending rates have been lower mainly because of the following factors.

- (a) Lack of reserve requirements
- (b) Regulatory expenses are either non – existent or very minimal.
- (c) No compulsory lending to some priority borrowers at concessional rates.
- (d) Information collection and processing is done quickly and with least cost since most of the borrowers are well – known.

Similarly the deposit rates of Euro – Dollars tend to be higher than the rates provided in the domestic markets for the following reasons.

- a. The Euro – Banks are in a better position to offer higher rates as a consequence of lower regulatory costs.
- b. The Euro – Banks are not conditioned with interest rates ceilings, unlike in the case with most of the national markets.
- c. In order to attract deposits that too on a large scale, the Euro Banks have been compelled to offer more interest rates on deposits which would otherwise be deposited in the domestic banks.

The International Euro – Dollar Bond Markets

The International Euro – Dollar Bond Market may be defined as a market for Bonds which are sold anywhere in the world but not in the geographical territory of the country of currency in which it is denominated. Mostly the funds raised by the borrowers in such market consists of foreign currency (i.e. other than the borrowers home currency) but on some occasions, the borrower can borrow from such international markets in his home currency (like a U.S. Company borrowing Euro Dollars).

The International Euro – Dollar market can be classified into 2 categories namely.

- (a). Euro Bond Market and
- (b). Foreign Bond Market

A Euro – Dollar Bond issued is said to be a Euro – Dollar Bond issue if such bonds are mainly sold in other countries than the country in whose currency the issue is denominated. The Organisation for Economic Cooperation and Development (OECD) which has been a prominent source of data regarding the international bonds has been defined as under.

“A Euro – Dollar foreign bond is one which is placed (on behalf of a non – resident) by a domestic syndicate, on the market of a single country and is denominated in that country’s Currency”.

To be a non – resident, a borrower must come from one of the following categories.

- a. Government or government Agency or political sub – divisions which are not located in the country in which the issue is made.
- b. International Organisation (like I.M.F. I.B.R.D etc.,)
- c. Officially sponsored international enterprises except when their registered office is in the country concerned.

Countries government as well as private firms started floating bond issues in New York and not among the European countries. Some of the attractions for the borrowers in New York included:

1. Quick and efficient system of under – Writing.
2. Lower interest rates and thus reduce the cost of borrowing and
3. Large and adequate supply

Types of Euro – Dollar Bonds

These bonds have not been homogeneous in nature. They can be classified into the following categories.

1. Straight Euro – Dollar Bonds.
2. Euro – Dollar Bonds with more Currencies
 - a. Multiple currency Bonds.
 - b. EMU Bonds (European Monetary Union)
 - c. Unit of Accounts Bonds and
 - d. Parallel Bonds.

The Euro – Dollar Bond market is truly international as these Bonds are sold to investors around the world and such issues need not comply with the national regulations and controls.

Straight Euro – Dollar Bonds represent a substantial part of the Euro - Dollar Bond market in which Bonds are issued with a single currency. Hence, bonds involving in more than one currency have started occupying an important position in the Euro Dollar Bond market.

“The multiple currency Bonds” provide an entitlement to the creditor for opting the payment of interest as well as the principal amount of the Bond in any pre – determined options of currencies. As for example, Consider a Japanese leader buying Such multiple currency bond and opting payment in the form of U.S. Dollars or British Pounds or Italian Liras, If all these 3 currencies are depreciable against, say, the yen, then he loses. If the appoint happens, he gains.

In case, all currencies depreciate, he accepts payment in the form of the “least” depreciated one, and if all currencies appreciate, he selects the payment in the most appreciated one. This way, the gains are maximized and the losses minimized in the event of any exchange rate variation.

The European Monetary Union (EMU) Bonds, sometimes also referred to as the European currency Union Bonds are also multiple currency bonds For the borrower, the basic advantage is that these EMU Bonds bear a lower interest rates (thus less consider) than the previous type of bonds.

For the lender, there is enough protection since in the event of devaluation he is entitled to obtain repayment in the least devalued currency and similarly he demands in case of appreciation repayment in the form of the most unvalued currency.

“The unit of Account” is neither a means of payment nor an instruments of exchange, although it may become so under special circumstances, as for example, when a transfer is made from one account to another an the books of a bank. The European Monetary Agreement has been following the unit of Account as the base currency unit.

Secondary Market for Euro – Dollar Bonds

Secondary market refers to the sale of Bonds or any other securities already bought for the first time in a primary market has been present only for name’s sake in Euro – Dollar

Bond market. After mid – 1980s, because of price quotations (both buying and selling prices) for various Euro Bonds being made by the commercial banks, securities firms and bond brokers, the secondary trading has become easier and gaining more popularity.

There is a 3 tier structure in the issuance of the Euro – Dollar Bonds, consisting of (1) Managers (2) underwriters and (3) sellers In case of U.S.A. the underwriters must purchase or swallow the unsold portion of the issue, while in Euro – Dollar Bond underwriting, the underwriters make their best efforts to sell they have wider options in the event of portions of the Bond issue remaining unsold, including the cancellation of the unsold part, if the underwriters are reluctant to purchase.

Comparison Between Euro – Currency and Euro – Dollar Bond Loans

There are certain merits and demerits of processing loans in the form of Euro Currencies and Euro – Dollar Bonds, depending upon certain conditions.

Euro – Dollar Bonds have the choice of fixed as well as floating rates. Fixed rate bonds have their own advantages since currency inflows and outflows can be offset with a calculated rate. The interest rate on Euro Dollar Currency loans is variable. It benefits the borrower if interest declines and vice versa.

The Euro currency loans have to be repaid in a relatively smaller time periods than loans from the Euro Bank market. The Euro currency loans provide an easier opportunity to change over from one currency to another at stipulated dates, while it involves some complications in the case of Euro Bonds. Euro – currency loans can be raised quickly while it involves relatively longer time for raising loans through Euro – Dollar Bonds.

Lesson 2.3 - Emergence of Global Currency Markets

Introduction

Emergence of Global currency Markets

A significant development in the European Economic Communities (EEC) Financial scenario was the emergence a new fixed Exchange rate mechanism. It is also called as the Emergence of Global currency market.

This system emerged from 1972 under this system the EEC countries Exchange rates were maintained within a named band i.e., within 1 1/8% of the pre – determined par values. The movement of currencies was restricted to either side of the parity. The band for other exchange rates was wider. It was popularly termed as ‘Snake in the Tunnel’. This technology came into use, keeping in mind the time path followed by the EEC exchange rate.

However, the rising inflation differentials and current account in balances of European countries resulting from the oil crisis of 1973 purview of the snake In 1979 some refinements were made to the European Monetary System (EMS) which was the base for the global currency market.

Under it the “Parity Grid” determines the lower and higher limits of Exchange rates, between each pair of the member countries currency. The band has a width of 21.4% above and below the pair rates. Thus, the Central Banks of both the countries would be required to buy and sell the currencies unconditionally. For e.g, if the German Mark is at lower support point of the permissible range when compared with the British pound, the German Central Bank would be required to buy the Marks and the British Central Bank would be required to buy the Marks and the British Central Bank has to sell pounds un conditionally under the EMS. The effective limits of the literal band are determined by the strong and week currencies in the grid. The automatic adjustment incorporated in the system makes it effective.

The European Currency Unit

It represents a basket of currencies of the member countries, the weight assigned to the European Communities currency depends an the proportion of the country’s “Gross National Product” in the European community’s gross product, and its share of trade within

the community the basket is reviewed once in 5 years. All the European community's Currencies are represented in the Basket. Only a few participated in the Exchange Rate mechanism.

The Group of Seven

The group of seven consists of Seven richest and industrialized nations viz, (1) Japan (2) West Germany (3) France (4) United Kingdom (5) Italy (6) Canada and (7) U.S.A. The purpose was to bring down the unnatural external to value of U.S. Dollar to stabilise the Exchange Rates.

The Group of Seven meet regularly to coordinate intervention by the government to prevent unwarranted fluctuations in Exchange Rates. This is in the interest of facilitating smooth international trade.

The Group of Seven has a proposal to build up a \$ 50 Billion "Emergency Fund" which would be used to help countries facing acute financial problems. It also proposed to make regulations necessitating greater disclosure so as to enable greater flow of information to the markets.

Euro Markets

They are unregulated money and Capital markets. These markets are spread over Europe, Middle East and Asia. Short – term Euro markets are called as "Euro – currency Markets". Any currency held outside to home country is referred to as Euro – currency. For example when a Dollar is held as a deposit outside the U.S. is referred to as Euro – Dollar, Similarly a deposit in Marks, outside Germany is called as a Euro – Mark deposit.

Development of Euro – Currency Market

The Dollar was and still is widely used to settle the international payments. Although there is an increase in European Deposits, denominated in Canadian Dollars, the pound sterling, Franc, Marks, Yen etc., by far the U.S. Dollar still remains the most popular Euro – currency.

The preference for Dollars can be attributed to the relative political stability and the absence of severe restrictions in the U.S. It thus facilitates high liquidity to Dollar – denominated deposits.

There are many reasons which have helped to popularize Euro Dollar deposits. Some of these are discussed in detail here.

Americans could prefer to hold their Dollars outside the U.S. This may be attributed sometimes to the numerous financial services provided by foreign banks as compared to American Banks. Further, at regulations and restrictions are capital outflow by the U.S.

Similarly, at times the U.S. may lay restrictions on the Americans restraining them from depositing in foreign securities. In such cases it would be advantageous for the Americans to have Dollar Deposits outside the U.S. as they can use their Euro Dollar deposit whenever they require it, without fear of any restrictions being laid.

During the 1960s, the U.S. banks and financial institutions had to abide by the restrictions placed on the maximum rate of interest that they could pay on the deposits placed with them of particular interest are the “Q” and “M” regulations placed by the U.S. Federal Reserve Board. The Q regulations restricted the interest rates on deposits. The U.S. Banks, outside the U.S. were subject to such restriction. Many U.S. Banks outside the U.S. were not subject to such restrictions.

This fact has attracted large volumes of Dollar Deposits outside the U.S. A large part of dollar deposits had flown out of the Country prior to de regulation and continued to remain there through the tenure of the deposit, some of these deposits on maturity, were reinvested in the U.S. since interest differentials ceased to exist.

Another contributory to the movement of dollar deposits outside the U.S. was the “M” regulations. It stipulated holding of reserves against deposits. These regulations were not applicable to deposits with overseas branches of U.S. Banks. On account of reserves, which are idle funds, the cost of operation in U.S. was naturally much higher than abroad. The U.S. Banks preferred to shift some of their dollar deposits outside the U.S. to less regulated or unregulated markets.

Yet another reason for the dollar deposits outside the U.S. being more attractive was the absence of the need to pay for Deposit Insurance. The Dollar deposits inside the U.S. were required to be covered by deposit insurance.

Euro Dollar markets also grew as a measure to avoid interest equalization tax levied on U.S. lenders earnings abroad. Foreigners in U.S. have also in U.S. Have also shown greater interest in Euro – markets, since 1979 when Iranian assets were frozen by the U.S. Between 1975 and 1988, the Euro Dollar market had recorded an annual average growth of 17% Euro

deposits had steadily increased over the years, in spite of the removal of restrictions initially placed by the Federal Reserve.

Euro – Currency Market Interest Rates

These are wholesale markets facilitating inter – bank transactions. Purchases and sales of currency are transacted by Banks regularly. The interest rate for the transactions in London Inter Bank offer Rate (LIBOR). The interest rate in such cases is LIBOR plus a mark up. The mark up varies between $\frac{1}{2}$ to $2\frac{1}{2}$ percent.

Functions of Euro Currency Markets

Cheap Source of Working Capital

The Euro – currency loans attract lesser interest than the loans of the domestic economy. Interest rates are lower because overhead costs are lower. Since dealings are between bank with good credit rating, the cost of credit checking and processing are less. Lending rates can be fixed lower than the domestic market. Similarly, it is possible to fix the deposit interest rates higher than in the domestic markets.

Liquidity

Financial institutions find it highly profitable to hold their idle sources in Euro – Markets. Since there are less restrictions in the markets, the investors can make investments in “bearer” securities. It has an added advantage in the form of absence of tax withholding an interest. Most of these deposits have maturities ranging from less than one day to a few months. On an average about 80% of these deposits have maturity of 6 months.

Facilitates International Trade

They provide easy loans which facilitate International Trade. Most banks prefer this form of financing to traditional forms like the letter of Credit. Much of the preference for Euro – currencies arise from lower interest rates and absence of emphasis on procedural formalities. Considering the attractiveness of these funds, there has been a sizable increase in the volume of transactions in these markets.

Euro – Debt Markets

These can be studied under 2 broad classifications (1) Euro – Dollar Loans and (2) Euro – Bond Markets.

Euro – Dollar Loans

The demand for Euro – Dollar loans was pushed up during 1960 in directly by the restrictions imposed in obtaining loans within the U.S. The restrictions were the result of a voluntary restraint programme adopted in 1965.

It was followed by mandatory controls in 1968. These strictures controlled the creation of loans within the U.S. Borrowers are, therefore, forced to look for funds outside the U.S. Euro Dollars loans provided the much needed alternate source of funds.

From 1963 to 1974. The U.S. interest equalization tax was in vogue. The tax was a levy on U.S. residents. Earnings on foreign securities. To equalize the expenditure to a U.S. resident lender, an account of the tax levy, foreign borrowers were forced to offer higher interest. Euro – Dollar loans did not attract interest equalization tax, as a result, the interest rates offered were much lower.

Euro Bonds

These are of more recent origin They are un – secured bearer debt instruments with maturity of 5 years and more. The Bond is sold in the markets other than those in the country in whose currency it is issued.

Since Euro – Bonds are not regulated strictly, their issue costs are lower than those of domestic issues. As such they had become an excellent source for raising long – term capital the issue of the Bonds is generally made simultaneously in several markets on behalf of international borrowers by syndicate.

Other Types of Euro – Currency Instruments

Bank Deposits: These are conventional deposits of Euro – currencies in Banks. Usually the period of maturity is either 30 days or 90 days. They are seldom made for periods longer than 90 days. Interest rates are pre fixed on the basis of the duration of the deposit.

SDR Dominated Deposits

These are negotiable instruments actively traded in the secondary markets. These are not term deposits. They offer a high rate of liquidity.

International Banking Facility

They are separate set of accounts with a Bank. They can accept foreign currency deposits. If used to make loans to foreigners they do not require insurance covers. In such cases, the reserve requirements to are waived. Withdrawals can be made after giving 2 days notice.

Euro –Dollar Futures

When the assets and liabilities of Euro Banks are not equal in terms of volume and maturity, they are subject to risks of exchange rate fluctuations. Euro – Dollar futures markets helps Euro – Banks to avoid much risks by making a futures sales.

To understand clearly of the global currency markets, we have to know the meaning and concept of global currency market, It is mainly because these markets did largely, if not entirely function upto date upto 1980s, is Dollars.

At present, the non – dollar denominated deposits have a wide spread existence, in such global currency markets. Also much of this market is new located outside Europe. The term global currency markets refers to all such financial assets and liabilities denominated in U.S. Dollars but which are transacted outside the territory of U.S.A.

It should be remembered that such transactions cannot take place independently but they will be in contact with their country of origin (U.S.A.) and some banks in the U.S. keep associated with the transactions outside the country for Euro – currency transactions.

In case of other Euro currencies, the concerned countries maintain such record of transactions.

The controls and regulations which had been in existence in U.S.A. were directly responsible for the evolution and growth of the Euro Dollar markets. It was precisely to overcome such difficulties arising out of the monetary regulations which did not become applicable on such markets outside the geographical territory of U.S.A. that these markets have come into existence and are making tremendous growth.

As an important instrument of the overall policy of U.S.A. there have been restrictions imposed by the U.S. Federal Reserve Board on the U.S. Commercial banks an payment of interest rates, on deposits received from individuals.

The financial instructions operative in the global currency markets are.

1. The U.S. Banks
2. The consortia Movement and
3. The European Banking Response.

Summary

The global currency Market have emerged only after II world war. The financial environment has been under going tremendous changes during the past 3 decades. The transactions from the fixed exchange rate system to the flexible exchange rate system has not been without its own share of difficulties. However the wide spread feeling that market force have to be reckoned with for financial well – being of the economy, has made its adoption even in developing and transitional economies much easier.).

Further the need for greater cooperation among nations in financial matter has forced the growth of global institutions such as the I.M.F. W.B etc.,

These institutions are fostering the growth and development of rich and poor nations alike. It is possible that with the development of money, capital, and force markets worldwide, the economic gap between nations would cease to exist in the years to come.

Lesson 2.4 - The Size and Structure of European Markets

The European Market has 2 broad divisions in their size and structure. Here the term “size” refers to the various institutions dealing with the European currency. The term “structure” refers to the various countries of Europe with which the entire currency market revolves.

The 2 broad divisions of this European Markets are:-

1. International Money markets and
2. International capital markets.

Introduction

The term European markets is used generally in a broad sense which includes both the money market and the Capital Market. If the financial transactions (lending and borrowing) takes place between 2 or more countries, we tend to call that there exists European Market among the participating countries (All the 12 leading countries of Europe). These are the specific set of countries – in the narrow sense of course, there are no restrictions among these countries, unless otherwise Specified.

There are chances for this European markets to develop at any part of the world subject to legal regulations. Allowing such to organize and continue and also there is enough attraction from the potential users of the European markets services.

As on date, however there are only 3 most important international market centres in the world – London, Luxemburg, Paris, and Belgium. Most of the advanced countries in Europe have a well – developed domestic markets but are reputed internationally. Contrary to this, there are also some countries whose domestic markets are not so efficient and advanced but buy acquired a lot of international reputation, such as Luxemburg, Switzerland etc., due to their favourable conditions.

Political stability, very less interference through controls and regulations by local governments monetary authorities, efficiency and expenses of the agents dealing with such market transactions, determine the basis for the development of any country as

an international financial centre. In countries where the lenders and borrowers and the syndicates find it favourable, automatically it receives enough international alteration.

The term European market represents such markets which primarily deal in short term claims, with a maturity period of not exceeding 1 year. The term “Maturity period” should not be confused with the term “original” maturity period of a financial instrument. Suppose that an instrument having an original maturity of say 10 years, but at a particular date, it has its remaining period of say, 3 months (i.e., it has been issued 9 years and 9 months ago originally), it must be considered as on that reference date, as a money market claim and it should not be treated as that of a capital market.

Functions of European Money Market

Money markets in any European nation are expected to serve 2 important purposes. Firstly, they provide the means through which the central bank can influence its monetary policy, for example, if the central Bank, through its open market operations involving the purchases and / or sales of government securities, it affects commercial Bankers reserves and their credit – creating capacities and money supply. Secondly, to the direct resources from the sectors with surplus funds to the deficit – sectors. For example, generally the surplus – sector consists of individuals, while the deficit – sectors consist of companies and governments.

Characteristics of the European Currency Instruments

There is a lot of variation in the currency instruments dealt with in the money markets (both domestic and international) due to the type of the issuer (i.e., Institutions, Government or Companies etc.,) the term of maturity (30 days, 3 months, and 6 months and 364 days – size – (Small, medium and large) and such other factors, there exist some commonalities which may be called as their Characteristics. They are:-

1. They can be bought and sold immediately.
2. There is usually a very active secondary market for these instruments.
3. The costs of transacting in these assets is usually lower and also relatively lower than their domestic counterparts (in case of international instruments).
4. They possess highest liquidity with them which is next only to the actual currencies. and
5. A corollary which follows (from points 3 above is) that they are rightly given the name as “Near Money”.

Nature of European Money Markets

Any typical money market is highly competitive. There is almost a perfect knowledge available with the rates published on a daily basis news papers, also available on telephone. In addition, the participants vary and they have a wide range of securities which they can choose from within their own money markets of a foreign nation.

Internationalisation of Currencies

It is interesting to know as to how the financing got internationalized (more specifically within Europe). Borrowers, basic in recent years, 3 main sources of raising funds, namely (1) Cash, generated internally (in case of firms, private finances, borrowing from the general public, commercial bank, Term – deposits from the public etc) (2) External Short – term funds and (3) external long – term funds. As regards external financing in concerned it could be either from lenders or investors. The investors buy the securities issued by the borrowers in the financial markets which are generally tradable or negotiable.

The pattern of financing companies, by the nations financial markets, in U.K. they obtain 60 to 70 per cent, while in Germany it is between 40 to 50 per cent while the companies, till 1975 got as high as 70 per cent from outside sources, it reserved dramatically within a decade. By 1985 almost the same 70% of funds for Japanese companies have been supplied by the internal sources.

There has been a financial de regulation which started in the U.S. in 1981 and in Japan in 1980. Following this, banks have been forced to commit funds with various institutions at the existing markets rates. Due to the consequent changes, the cost of obtaining bank loans by the firms have risen such that they realised that they can get financed cheaper by issuing “Commercial paper” by their bankers. Hence, the share of Banks has been in the decline in the short – term credit markets.

With sophistication in Technology, communication and the removed of the controls in foreign markets. Firms, and other borrowers have started comparing the domestic and foreign markets and thus becoming irresponsive to changes in them. Also the gap between these 2 markets has slowly disappeared.

Thus, there has been a globalization of Financial markets since early 1980s. This is responsible for an unprecedented amount of competition between the major financial centres and institutions. Thereby, hence has been a considerable reduction in the costs associated with the issuance of new securities.

Money Market Instruments in the New York Market

A Review of U.S. Money Market

To start with, the U.S. money market is a wholesale market for money instruments which are of high quality and, of course, having short maturity periods. Though the Federal Reserve system of U.S. classifies money market instruments to be having original maturity of lower than one year, the bulk of the trading in U.S. takes place in very short – term maturities. There is also a very active secondary market for such instruments. Though the New York market happens to be a large one, there is nothing like a central exchange for such instruments. The work of total market transaction each day is of the order of a few hundreds of Billions of dollars.

The Federal Reserve system came into force in 1914 and since then the Federal Reserve Bank (Commercial banks) by asking them to buy and sell the Federal Funds.

Money Market Instruments

The Major instruments constituting the U.S. Money market are Federal Funds, Treasury Bills and government Agency Paper, Euro – Dollars, certificates of Deposits (C.D.S.) and re – purchase agreement.

Regarding the marketing of the above instruments, there is no secondary market in case of the Federal Funds, though it exists in principle for the Bank accounts its is confined to a limited extent. There is on the other hand, a very active secondary market in the Treasury Bills and the Federal Governments Agency Papers / notes

The Money Market instruments are many

1. Federal Funds

These federal funds are used by commercial Banks in meeting the reserve requirements more efficiently. From time to time the Federal Reserve Bank (U.S. Central Bank) changes the minimum reserve to be held by the commercial Banks, as a part of its monetary policy. These Fed Funds are the most liquid assets which bear some interest. There is very little credit risk and the borrowers and lenders are known to each other. The interest risk on these Fed funds are the most liquid assets which bear some interest. There is very little credit risk and the borrowers and lenders are known to each other. The interest – rate serves as the base – rates for the entire money market.

2. Treasury Bills

These bills are popularly known as T bills, They consist of a set of securities issued by the Treasury on behalf of the government to meet the latter's spending obligations. There are 3 categories of securities under the T – Bills short, medium and long – term maturities These are called as “Bills” (if original maturity is less than 1 year) “Notes” (if it is between 1-10 years) and “Bonds” (if it is more than 10 years).

As regards the composition of investors for T bills is concerned, the pension Funds, Companies and banks, the central banks of non U.S. Nations, sometimes, the foreign institutional investors, individuals do buy them, if there is an attractive interest rate. These T – Bills are totally free from default risk, and have active secondary markets.

3. Euro – Dollars

Due to certain regulations in the U.S. Money market, the Euro – Dollar market came into existence. The Euro Dollars are the U.S. Dollar traded outside the territory of U.S.A. In the post – war period, the strained relations between the former Soviet Union and the U.S.A. has, to a large extent, changed the nature of the Euro Dollar market. The balances held by the entire eastern block of countries were transferred from banks of New York to namely London, following apprehension of attachment by the U.S. government.

Presently the Euro – Dollar market is seen as an extension of the domestic U.S. money market. Due to a lot of demand for such assets, there has been a tremendous growth of the market outside U.S. with about 70% of the wider Euro – currency market consisting exclusively of U.S. Dollars.

4. Certificates of Deposits (C.Ds)

The commercial banks have started using these certificates from late 1960s mainly to counter the corporate treasuries from the large scale use of commercial papers and T.Bills to fund the private firms. A CD is an unsecured liability (of Banks) having the denominations of \$1,00,000 and more. Their original maturities of 2 week to 5 years or more suggest that they are short to medium term instruments. The rate of interest on the C.Ds is paid on the basis of the face – values. Normally, institutions and companies are major investors who prefer liquid low – risk investments.

At times, the Banks also issue long – term CDs. There is a 2 way procedure for payment of interest rates. If the term of CD is 18 months or less a variable interest is paid

with a revision in interest rate once in 3 months, at the discretion of the Banks issuing them, If the term exceeds 18months there will be a fixed rate of interest promised at the time of issuing them.

5. Banker's Acceptance

A Banker's Acceptance (BA) is an unconditional order in writing to pay a specified sum to the bearer or any other designated party by him at a particular time in future (i.e., not instantly). If it is accepted by a Bank, it implies that the Bank has guaranteed payment and it becomes a negotiable instrument.

6. Commercial Paper

A commercial Paper (CP) is an unsecured promissory note issued by very large private companies and financial companies having a short and original maturities. Majority of the CPs have 30 days or less of original maturity, while most of the CPs have 270 days of original maturity. The Securities and Exchange commission (SEC) may rarely permit some companies to issue CPs of more than 270days.

International money market is technically the "Euro - Currency market. The prefix "Euro" is used for historical reasons because of the U.S.dollars, very largely deposited outside U.S.A in Europe, particularly in London. The Euro – currency market is operated by foreign banks called Euro – Banks and U.S. Banks foreign brokers, operating in other countries. The Euro – currency markets enable the investors to hold short – term claims on commercial banks. Then loans are advanced on a "floating rate" basis calculated as a fixed percentage over the London Inter bank offer Rate (LIBOR).

International Bank Market

Under the Structure of European markets the developmental activity undertaken by almost all countries after the Second world war. (both the war – affected and the Third world countries) necessitated the world economics to come closer and act as a united world economy. In the pre – 1944 period, there had not been much scope for international banking activity excepting providing foreign exchange and facilitating foreign trade – New activities, financial techniques etc have been incorporated since then.

From 1973 "Oil Crisis" there was a need for the "Petro Dollars" re – cycling. Here the International banks played a very crucial, role in re cycling funds from the oil exporting countries (OPEC – Organisation of petroleum Exporting countries) to the oil importing

countries. By 1979, nearly 1/3 of the total lending was to the least Developed countries (LDCs), and communist countries but together. Another note – worthy point is that during the same year (1979) over 80% of the total outstanding loans were only denominated in U.S. Dollars.

The European banks have very sound capital in Euro – currency and a fast growing market. However. They are very weak in a competitive world. While the Japanese banks have powerful corporate customers, larger asset base and one of the strongest economies of the world. However they are unable to consolidate their position due to lack of dynamism and innovativeness and other domestic problems.

Majority of the American banks have relatively weak capital base, much of their loans advanced to the LDCs (High risk loans) but with enough experience they have gained both within the nation as well as outside their performance has been quite impressive Banks like Citi Corp., J.P.Morgan have been investing in areas like information systems, computers etc and are highly innovative.

International European Capital Market

The structure and size of the European Market includes international capital markets, International investor, the Bond issue Drill and the instruments in New York and Tokyo markets.

The importance of capital markets for the efficient transfer of funds between the borrowers and lenders cannot be oversteated. Individual who have insufficient wealth to take advantage of all their investment opportunities that yield rates of returns, higher than the market rate are able to borrow funds and invest more than they would without capital markets.

We know that countries need to borrow externally in the European market due to:

- a. The gap between the current external receipts and payments.
- b. The gap between domestic savings and investments.
- c. These external funds come in the form of grants loans and equity investments.

International Capital Markets

The role played by the commercial banks as a source of external finance for developing countries has comedown since the 1980s and this could be attributed to: -

- a. The losses sustained by the international banks on third world debt in 1980s.
- b. The imposition of capital adequacy norms which have made it difficult and costly, for the Banks to take on additional assets.

The international capital markets have grown in size and structure at a very rapid pace. The multilateral agencies such as the world Bank also raise bulk of their resources in the world capital markets and this in a way, has added to the growing importance of the international capital markets.

The principal instruments dealt with in the international capital markets are (as in the domestic market) (1) The Bond and equity issues (2) Euro Bonds (3) Foreign Bonds (4) Euro convertible Bonds, Floating rate notes (5) The global deposit receipts (6) American depository receipts, Asian Dragon Bonds etc are the various instruments dealt with in the international capital markets.

The major centres which deal in these instruments are the New York stock exchange, The Tokyo stock exchange, the capital market of London, Luxemburg etc.,

The International Investor in European Market

There are 2 categories among the International investors (1) The Institutional Investor and. (2). The individual Investor.

The first category includes big mutual funds and personal funds. They are keen to diversify investments all over the world and willing to invest a part, albeit small of their portfolios, in third world companies and stock markets.

From the pure financial point of view, investors ought to consider the possibility of expanding their investments beyond the geographical limit of their own countries, if only because of the diversity of investment – possibilities that are available. If the investment is larger than the assets in one country as large as the U.S.A, the investors may be able to reduce the risk of their investment portfolio by diversifying across countries.

With a growing awareness of the benefits of diversification, the funds in industrial countries are increasingly looking at the emerging markets for investments in equities. For instance, in 1992 alone, U.S. outflows into bonds and equities exceeded U.S. \$ 50 Billions when we take of Equity Investment, accompanied by technology and management from the foreign investors and is the largest element of Equity Funds for most of the countries. Foreign Direct Investments totaled U.S.\$226 Billions in 1990. The total net source flows

from OECD countries to developing countries in the form of FDI has steadily gone up from about \$11.3 Billions in 1985 to around \$ 29 Billion in 1992. The higher returns on investments in poor countries is estimated to increase the FDI flow from \$40 Billion a year in 1992 to around \$80 Billion a year by the end of the century.

Portfolio investments, on the other hand are aimed at capital appreciation and the portfolio investors also do not bring in any technology. Portfolio investments are of 4 types.

1. Close – Ended Country Funds Floated Abroad

They operate in the same way as domestic mutual funds.

2. Open Ended Country Funds

These are also mutual funds but with no specific maturity date.

3. Foreign Institutional Investors (FIIs)

They invest directly in stock markets.

4. Equity (or Convertible Bond) Issues in Foreign Markets

Portfolio investments to developing countries have more than doubled between 1989 and 1991 from \$3.4 Billions to \$7.3 Billions, accordingly to the World Bank Research Observer (January 1993)

Bond Market

Bond is a promise, under seal, to pay money. This term is generally used to designate the promise made by a corporation, either public or private, to pay money to the bearer. The public issue of bonds can be divided between those issued by Governments or their agencies and those issued by private institutions.

In every country, bond issues represent 75% or more of the total issues of securities. Equity shares account for the remaining 25%. The issue of international bonds to finance cross border capital flows has a history of more than 150 years. As early as 19th century, the foreign issuers of bonds, mainly governments and Railway companies used the London market to raise funds.

Euro Bonds

When the Bonds are sold principally in countries other than the country of the currency in which the issue is denominated, it is called as Euro Bond issue for example, a Dollar Bond issued in Europe is a Euro (Dollar) Bond in the Euro – Bond market, The rates of one – currency bond are directly related to the long – term rate in the home country of the currency, the Euro – rate for short maturities of that currency, the rates in other currencies, and currency regulations and restrictions. For example, the Euro – Dollar bond rate depends all the U.S. long – term rates, the Euro – Dollar rates (and therefore an U.S. Short – term rates) and the long – term rates in other countries.

Foreign Bonds

A foreign bond is an international bond sold by a foreign borrower, but denominated in the currency of the country in which it is placed. It is under written and sold by a national underwriting syndicate in the lending country. For example, an Indian company might float a Bond Issue in the U.S. Capital market, where it will be quoted and traded. Many foreign bonds were issued in the domestic markets of U.S. U.K., Germany, Japan, Netherlands, Switzerland etc., The foreign bonds are referred to as “Yankee Bonds” (these issued in domestic markets of U.S). “Bull dog Bonds” (in U.K.), Samurai bonds (in Japan) etc.,

The interest rate on foreign bonds are directly co – related with the rates prevailing in the given country adjusted by whatever regulation that affects the foreign bonds. In recent times, the foreign governments have come to be the major borrowers in the foreign bond market.

Lesson 2.5 - Regulatory Systems of Foreign Exchange

The well – established Regulatory System of foreign exchange is spread over in all the activities of the foreign exchange market. Some of them are explained here–under.

Foreign Exchange Derivations

A “derivative” is a financial contract whose value depends on the values of one or more underlying assets, or indices of the asset values. The underlying assets could be

- (1) Equities
- (2) Currencies
- (3) Commodities
- (4) Interest Rates and
- (5) Price Index.

The derivations account for approximately 80% of the financial market activity in the developed world – North America, Europe, and East Asia. Derivatives are almost like insurance.

The difference is that the insurance protects against the firm – specific “risks” whereas the derivatives take care of the market risks. It is widely used as an instrument of risk management. Investors are increasingly making use of derivatives to hedge against the risk of losses and enhance the value of their risks.

According to Mr.J.P. Morgan, the derivatives do not make risks disappear but they make it possible to exchange a risk, you would rather not take for one, you are more willing to accept. Derivatives are dynamic. The risk profile of derivatives transaction changes constantly as markets and prices move up or down.

In to-day’s contest of open economics with floating exchange rates being the order of the day, the world is a riskier place now than what it was 20 years ago. All business firms face an ever – growing exposure to risk from all sides – volatility beyond a certain degree can put a firm out of business, in spite of it being efficient otherwise.

Taxonomically, derivatives can be classified as options, futures, swaps and of course, the forward exchange contracts. There are hybrids like swaptions, option and futures etc., But we confine ourselves to the recent but emerging as the dominant instruments or products to manage risk in the arena of international finance, namely

- (a) Currency options
- (b) Currency futures and
- (c) Currency swaps.

Currency Options

A currency option is an arrangement between an option holder and an option writer. The option holder is the buyer and the option writer is the seller of an option. A currency option gives the buyer the right, but not the obligation to either buy or sell a specified quantity of one currency in exchange for another, at a pre-determined exchange rate, which is known as the “Strike Price”. However, the option to buy or sell must be exercised on or before a specified expiry date.

Though, a holder has no obligation to exercise an option, the writer of the option must comply with its terms and should be prepared to buy or sell the under lying currency when a holder decides to exercise an option.

Features of Currency Options

Currency options are of 2 types, namely

- (1) Over – the – counter (OTC) options and
- (2) Exchange – Traded options.

The OTC options can be arranged individually with a bank whereas the exchange - traded options can be purchased only through a broker on an options exchange such as Philadelpha stock Exchange (PHLX), Chicago Mercantile Exchange (CME) etc.,

Call options Vs Put Options

A call options gives its holder the right but not the obligation, to buy the specified amount or quantity of a currency usually against the U.S. \$ at the strike price. On the other hand, a put option gives its holders the right to U.S. \$.

Quantity of Currency

The option agreement specifies the quantity of currency, an option buyer can purchase or sell, In the case of Exchange - traded options, the quantity is a standard amount. For example, on PHLX, the currency options traded are currently restricted to the following currencies against the U.S. Dollar.

Option	Quantity
Pound Sterling	£ 31,250
Australian Dollar	A\$ 50,000
Canadian Dollar	C\$ 50,000
Japanese Yen	¥ 6,250,000
ECUS	ƒcus 62,500
Deutsche Mark	DM 62,500
Swiss France	SFR62,500
French France	FFr 250,00

Strike Price

The exchange rate at which the holder has the right, but not the obligation, to exchange the currencies when an option is written, the strike price might be higher, lower or exactly the same as the current spot rate. Thus a strike price could be

- (1) At – the - money
- (2) In – the – money and
- (3) Out – of - the – money

At – the – Money – Option

An option whose strike price is the same as the current market price exchange rate. Normally, an at -the – money option would be used by a customer who wants to guarantee today's rate while allowing himself some profit potential if the exchange rate were to be more in his favour.

In – the – Money Option

An option whose strike rate is more favourable than the current spot rate. This would attract a lower premium, but offers less protection to the holder.

Premium

The cost of the option paid up – front by the purchaser to the writer of an option. It is normally paid in 2 working days after deal date and represents to maximum amount that can be lost by the holder. The writer charges the premium since he is willing to absorb the currency risk. The risk is that the option – holder will exercise the option and the write of the option will make and the difference between the strike rate and market rate of exchange on the expiry date.

Expiry Date

The date on which the right to exercise the option ends.

American and European Option

An American option can be exercised on or before its expiry date, for example: a 3 months American option purchased on January 1st can be exercised on any day on or before the expiry date i.e. on 1st April, European option, on the other hand, can be exercised only on the expiry date. For instance, in the above example, if it were to be a European option, it can be exercised only on the expiry date i.e. 1st of April.

American options are preferred when the holder is uncertain about the exact date of an underlying transaction for which the option is being used as a hedge, for example, if a U.K. company expects to receive \$ 1 Million between the end of March and at the end of April, which it will then, sell for sterling, if it could arrange an American OTC put option with a Bank to sell \$ at any time upto 30th April, so that the option can be exercised as soon the \$ are received.

Whereas with a European option the company would have to wait until 30th April, regardless of when the \$ are received, if it wished to exercise the option.

If the currency options are bought to hedge an exposure in a particular currency, the buyer must feel at the risk of reduction justifies the premium to be paid, an option is preferred to the other alternatives of hedging such as futures, forward exchange Control act.

In general, the option route is a desirable method of hedging a currency exposure for a buyer, who can lock – in a worst possible exchange rate to avoid the risk of an adverse rate movement and at the same time benefit from any favourable movement in the rate by choosing to allow the option to lapse and buy or sell in the spot market.

Currency Option Versus Forward Contracts

Forward exchange contracts, are widely used for hedging a currency exposure as they enable a company to lock – in a rate which is acceptable to the company for a future currency transaction. Currency options could also be used for the same purpose. It would be possible to buy a currency option with a strike price equal to the currently available rate for a forward contract, so that the option holder would secure an exchange rate that is at worst, the same as the forward rate. However, the advantage of a currency option have a forward exchange contract lies in the fact that the option holder has the choice not to exercise the option and instead transact at the spot rate, if the rate movement is in his favour.

Limitation of Option

- (1) Regular use of option involves high premium costs. The buyer of an option must be satisfied that these costs justify the risk that is being hedged.
- (2) Only a limited number of currencies are available in traded options. The trading centres are also limited in number.

Currency Futures

A currency future is a contract for the purchase or sale of a standard quantity of one currency in exchange for another currency at a specified exchange rate, to be delivered at a specified future time. Normally the maturity dates of currency futures are 10th March, 10th June, 10th September and 10th December. These are bought and sold on a future exchange at the stock exchange.

Trading in currency futures began on 16th May 1972 at the International Monetary Market (IMM) which is a division of Chicago Mercantile Exchange (CCME). Most of the currency futures are for a major currency against the U.S. \$. The currency futures contracts that are traded on the CME are in sterling (£), Deutsch Marks (DM) Japanese Yen (¥) swiss Francs (sFr) French Francs (FFr) Canadian Dollars (C\$) and EcUs.

The exchange provides 3 essential elements.

1. An efficient central market which brings together differing view points of future values.
2. An open market available to all participants including inter-bank foreign exchange dealers and

3. A market that eliminates certain credit risks. The clearing house acts as the seller to every buyer and as a buyer to every seller in each futures transaction.

Swaps

A swap is an arrangement between 2 parties for the exchange of a stream of cash – flows over a specified term. The Currency swaps involve the exchange of a stream of cash – flow in one currency for a stream of cash – flows in another currency.

The swap market can be said to date from 1981, the year in which IBM and world Bank effected a swap transaction. There are many types of swaps such as “Currency swaps”, “Interest Rate Swaps” etc.

All these swaps work on the principle that different institutions have different comparative advantages, and that as a result, there can be gains from any 2 institutions trading with each other, Now, we will discuss in detail about the currency swaps and interest rate swaps.

Currency Swaps

These are the agreements to exchange payments in one currency for these in another. The structure of a currency swap is similar to a forward contract or futures contract in foreign exchange, most of these swaps involve the U.S. \$ on one side of the transaction, However, direct currency combination like the D.M. & Y are also gaining importance. A currency swap normally consists of the following 3 elements.

1. There is an exchange of principal at the beginning of the swap. One party exchanges one currency for another currency at an agreed rate of exchange.
2. At regular intervals, normally 6 monthly or annually, there is an exchange of payments. It is convenient to think of these as interest payments on the swapped amount of principal. But it must be remembered that swaps are not loans. The amount to be exchanged by each party is calculated as a “Swap Rate” on the amount of principal exchanged. This might be fixed rate or floating rate.
3. At the end of the term of the swap, there is a re-exchange of the principal amounts with each party repaying the currency that was received at the start of the swap period. The rate of exchange is therefore exactly the same as for the initial exchange of principal.

Interest Rate Swaps

An interest rate swap is an agreement between 2 parties to exchange fixed interest rate payments for floating interest rate payment or vice versa in the same currency, calculated with reference to an agreed national amount of principal.

The principal amount which is equivalent to the value of the underlying assets or liabilities that are swapped is never physically exchanged but is used merely to calculate interest payments. The purpose of the swap is to transform a fixed rate liability into a floating rate liability and vice versa. The floating rate that is used in most swaps is calculated with reference to London Inter Bank Offer Rate (LIBOR). Interest rate swaps have a similar structure to interest rate futures in the sense that the terms of the future obligations under the swap are determined today. The motive underlying an interest swap is to exploit a comparative advantage and to make a gain from the swap.

Lesson 2.6 - Major Instruments

The major instruments constituting the U.S. Money market are the following.

1. Federal Funds
2. Treasury Bills
3. Euro – Dollars
4. Certificates of deposits
5. Bankers Acceptance and
6. Commercial paper

Let us briefly discuss about these instruments

Federal Funds

These are popularly called as “Fed Funds”. These funds are used by the commercial Banks in meeting the reserve requirement norms efficiently. From time to time the Federal Reserve Bank (U.S. Central Bank) changes the minimum reserve to be held by the commercial banks as a part of its monetary policy. These Fed Funds are the most liquid assets which bear some interest. There is very little credit risk and the borrowers and lenders are known to each other. The interest rate on these Fed Funds serves as the base rates of the entire money market.

In the pre-1979 era, these have been used as a service primarily to implement the monetary policy. In the early 1980s it has been used as an instrument to control money supply shifting away the emphasis from controlling interest rate, following volatile interest rates in money market by late 1980s, again the fed funds are used to manage the interest rate in money market. The rate of interest on the fed funds is the single most important one in the entire U.S. money market.

Treasury Bills

These treasury bills (otherwise called as T. Bills) consist of a set of securities issued, by the treasury, on behalf of the government to meet the latter’s spending obligations. There

are 3 categories of securities under the T. Bills – short – medium and long term maturities. These are called as “Bills” (if the original maturity is less than 1 year) “Notes” (if it is between 1 – 10 years) and “Bonds” (if it is more than 10 years).

As regards the composition of investors for T. Bills, pension funds companies and Banks of non-U.S. nations, sometimes, foreign institutional investors, institutional do buy them if there is an attractive interest – rate. These T. Bills are totally free from default risk and have active secondary market.

Euro – Dollars

Due to certain regulations in the U.S. money market, the Euro – Dollar market came into existence. Euro – Dollars are traded outside the territory of U.S.A. In the post – war period, the strained relations between the former soviet Union and U.S. has, to large extent, changed the nature of the Euro – Dollar market.

The balances held by the entire Eastern block of countries were transferred from banks of New York to mainly London following apprehensions of attachment by U.S. Government.

Presently, the Euro-Dollar market is seen, simply as an extension of the domestic U.S. money market. Due to a lot of demand for such assets, there has been a tremendous growth of the market outside U.S. with about 70% of the wider Euro – Currency market consisting exclusively U.S. Dollars.

Certificates of Deposits (CDs)

The commercial Banks have started using these certificates of deposit (CDs) from late 1960s mainly to counter the corporate treasures from the large scale use of commercial papers and denominations of \$1,00,000 and more. The original maturities of 2 weeks to 5 years or more, suggest that they are short to medium term instruments. The rate of interest on the CDs is paid on the basis of the face values. Normally institutions and companies are the major investors who prefer liquid low – risk investments.

At times, banks also issue long – term CDs. Here, there is a 2 way procedure with respect to payment of interest rates. If the terms of CD is 18 months or less, a variable interest is paid with a revision in interest rate once in 3 months or 6 months, at the discretion of the Banks issuing them.

Banker's Acceptances (B.A.)

A Banker's acceptance is an unconditional order in writing to pay a specified sum to the bearer or any other designated party, by him at a particular time in future (i.e. not instantly) if it is accepted by a bank, it implies that the bank has guaranteed payment and it becomes a negotiable (tradable) instrument.

In most of the countries, the BAs are used to finance international trade. In some cases, as in U.S.A. a part of the international trade is also financed using the BAs. The mechanism involved is simple. The exporter issues a time draft, specifying the name of the bearer and time at which the payment may be made. Once the goods have been physically possessed by the importer, the importer accepts the draft and returns to the exporter.

The exporter has 2 options, namely, he may either discount the draft with a Bank (i.e. offering at a lesser value than its face value because of obtaining liquid cash) or he may keep it with him till to maturity date (normally a maximum of original maturity of 6 months). There is little default risk in the use of the B.A.s and they have got popularized as a low – cost source to finance foreign trade, because of very nominal discount rate.

Commercial Paper

A commercial paper (CP) is an unsecured promissory note issued by very large private companies and financial companies having a short and fixed maturities. Majority of CPs have 30 days or less of original maturity; while most of the CPs have 270 days of the original maturity. The securities and exchange commission (SEC) may rarely permit some companies to issue CPs of more than 270 days.

If companies are very popular, they will issue CPs directly without the involvement of Banks. The financial companies generally issue CPs directly to the investor while others make use of investment dealers. The discount rate (at which it is sold) depends on factors like reputation of issuer, maturity (remaining) and the sum. Due to higher default risk and lesser liquidity, they fix higher rates of discount.

The preceding section we have seen some important money market instruments (of U.S.A.) and their basic features. Let us now turn to the instruments dealt in the international market.

International money market is technically the “Euro – Currency” market. The prefix “Euro” is used for historical reason because of the U.S. Dollar were largely deposited outside

U.S.A. in Europe particularly in London, Again the currency which is forming the larger share in the Euro – Currency markets happens to be the U.S. Dollar. Although in the recent past, other (non – dollar) currencies have started becoming significant (for example). Deutsete mark and swiss francs), still the dollar continues to be the single most important currency.

The Euro-currency market is operated by foreign banks called Euro Banks and U.S. Bank's foreign branches (operating in other countries). Generally, there is some amount of ambiguity between the 2 markets namely, the Euro – currency and Euro – Bank markets. The Euro – currency markets enable the investors to hold short – term claims are commercial banks. Normally, loans are advanced on “floating rate” basis, calculated as a fixed percentage over the London Inter Bank Offer Rate (LIBOR).

Most of the loans are of 6 months duration. Shorter periods are also possible. These commercial Banks, in turn, function as intermediaries between investors and final borrowers. Banks transform the short-term claims into long – term claims on the final borrowers. While in Euro – Bond market, banks play a significant role, Basically “Euro Bonds” are directly issued by the financial borrowers. These Euro – Bonds are traded outside the country in whose currency, the bond is denominated (i.e. Euro – Dollar Bonds, for example, will be sold outside U.S.A. since such bonds are denominated in U.S.s currency)

Self Assessment Questions

1. What do you understand by the Euro – Currency market? What are inside and outside areas?.
2. Explain the “Euro – Currency spreads” and maturity.
3. What are Euro and Foreign Bonds? What has been the position of Dollar denominated bonds in the Euro Bonds in the recent past?
4. Briefly discuss the Euro Bonds involving more than one single currency.
5. Explain the utility of Euro – Currency Market.

UNIT - III

International Financial Markets

Nature and Functions

International financial markets undertake intermediation by transferring purchasing power from lenders and investors to parties who desire to acquire assets that they expect to yield future benefits.

International financial transactions involve exchange of assets between residents of different financial centres across national boundaries. International financial centres are reservoirs of savings and transfer them to their most efficient use irrespective of where the savings are generated.

There are three important functions of financial markets. First, the interactions of buyers and sellers in the markets determine the prices of the assets traded which is called the price discovery process. Secondly, the financial markets ensure liquidity by providing a mechanism for an investor to sell a financial asset. Finally, the financial markets reduce the cost of transactions and information.

Money and Capital Market

Like their domestic counterpart, international financial markets may be divided into money and capital markets. Money markets deal with assets created or traded with relatively short maturity, say less than a year. Capital markets deal with instruments whose maturity exceeds one year or which lack definite maturity.

Again on lines similar to domestic markets in the international financial markets also we have primary and secondary markets dealing with issue of new instruments and trading in existing instruments and trading in existing instruments and negotiable debt instruments, respectively. In international financial markets as in the domestic markets there is a symbiotic relationship between primary and secondary markets.

Categories of Markets

According to Garbbe, international financial markets consist of international markets for foreign exchange, Euro currencies and Euro bonds. In view of the development and rapid growth of swaps and globalization of equity markets, international financial markets have been categorized into five markets here: foreign exchange market: lending by financial institutions; issue and trading of negotiable instruments of debt; issue and trading of equity securities; and lastly internationally arranged swaps. The rates of foreign exchange as well as interest rates fluctuate and to hedge against the risk of loss arising out of changes in them derivative instruments are traded in the organized exchanges as well as in over the counter markets. Most of the derivatives except the interest rate swaps are short term in nature. Derivatives involve creation of assets that are based on other financial assets.

International Money Market

A money market is a market for instruments and a means of lending (or investing) and borrowing funds for relatively short periods, typically regards as from one day to one year. Such means and instruments include short term bank loans. Treasury bills, bank certificates of deposit, commercial paper, banker's acceptances and repurchase agreements and other short term asset backed claims.

As a key elements of the financial system of a country, the money market plays a crucial economic role that if reconciling the cash needs of so called deficit units (such as farmers needing to borrow in anticipation of their later harvest revenues), with the investment needs of surplus units (such as insurance companies wanting to invest cash productively prior to making long term investment choices). Holding or borrowing liquid claims is more productive than holding cash balances. A smoothly functioning money market can perform these functions very efficiently if borrowing lending spreads (or bid offers spreads for traded instruments) are small (operational efficiency), and if funds are lent to those who can make the most productive use of them (allocation efficiency). Both borrowers and lenders prefer to meet their short term needs without bearing the liquidity risk or interest rate risk that characterizes longer term instruments, and money market instruments allow this. In addition money market investors tend not to want to spend much time analyzing credit risk, so money market instruments are generally characterized by a high degree of safety of principal. Thus the money market sets a market interest rate that balances cash management needs, and sets different rates for different uses that balance their risks and potential for productive use. Unlike stock or futures markets, the money markets of the major industrial countries have no central location; they operate as a telephone market that is accessible from all parts of the world.

The international money market can be regarded as the market for short term financing and investment instruments that are issued or traded internationally. The core of this market is the Eurocurrency market, where bank deposits are issued and traded outside of the country that issued the currency.

Other instruments to be discussed in this chapter such as Euro commercial paper and floating rate notes, serve some what different purposes and attract a different investment clientele. However, each is to a degree a substitute for each of the other instruments, and the yield and price of each are sensitive to many of the same influences, so we may feel justified in lumping them together in something called a market. The fact that many of the other instruments of the international money market are priced off LIBOR, the interest rate of Eurodollar deposits, suggest that market participants themselves regard the different instruments as having a common frame of reference.

Today many domestic cash and derivative instruments, such as US. Treasury bills and Eurocurrency futures contracts are traded globally and so are effectively parts of the international money market.

Euromarkets instruments simply represent part of a spectrum of financial claims available in the money market of a particular currency, claims that are distinguished by risk, cost and liquidity just like domestic money market instrument. However domestic money markets are called upon to play public as well as private roles. The latter include the following three functions.

- The money market, along with the bond market, is used to finance the government deficit.
- The transmission of monetary policy (including exchange rate policy) is typically done through the money market, either through banks or through freely traded money market instruments.
- The government uses the institutions of the money market to influence credit allocation toward favored uses in the economy.

Returns on Money Market Instruments

The manager of cash will wish to consider the alternative money market instruments she has at her disposal by comparing their returns, risks and other characteristics. In principle, the range includes all the instruments in two dozen or so domestic money markets open to international investors. Realistically, though one would normally limit one's attention to a few major currencies and to the more liquid instruments.

For some the starting point would be US Treasury bills and some will be constrained to that class of risk. Most international investors will look for a better return than can be had in government Treasury bills, however, so their starting point would be short term Euro deposits.

To compare instruments one should be able to express their returns on a comparable basis. Doing so is complicated by the different maturities and payment characteristics of even the limited range of investments considered here, and by the different delivery and accrued interest calculations adopted by participants in different markets.

The basic idea of a return is that you invest a sum of money today and you get some more back at a later date. The increase, expressed as an annualized percentage of the original investment, is typically how we measure return. Thus if you invest Y100 today and you receive Y107 in one year the return is 7 percent. In practice this idea takes three different forms.

1. The bank discount rate
2. The add on yield
3. The yield to maturity, known in the Euromarkets as the bond equivalent yield.

1. **The bank discount rate method** is a formula devised to make calculations easy to do by hand but its use persists in these days of financial calculations and computers for money market instruments such as Treasury bills, banker's acceptances and commercial paper. These carry no coupon but are sold on a discount basis from a face principal value of 100.

$$\text{Bank discount rate} = \frac{\text{Discount}}{100} - \frac{360}{\text{Days}}$$

Where Discount is the dollar amount of discount from the face value of \$100 and Days is the actual number of days to maturity.

2. **The add on yield** is used in Eurodollar – and Euro currency deposit calculations because these are typically issued at a price of 100 and the coupon added on at the end.

$$\text{Add-on yield} = \frac{\text{Interest Payment}}{100} + \frac{360}{\text{Days}}$$

Where

Interest payment is the dollar amount of payment made at maturity on an investment of \$100.

Days is the number of days to maturity, for example, if the interest payment on a 90 day Eurodollar deposit is \$ 2.5, then the add on yield is 10 percent

The trouble with the add on yield is that it ignores compounding, which can be important because a one year Euro deposit that pays interest semiannually is more desirable than one that pays annually. To take compounding into account we need the yield to maturity or the bond equivalent yield.

1. The bond equivalent yield or yield to maturity is the rate that equates the present value of all future interest and principal payments with the market price of the instrument. If as in the Eurobond market, interest is paid annually, we can solve the following equation for r , the yield to maturity:

$$P = \frac{C}{1+r} + \frac{C}{(1+r)^2} + \dots + \frac{C}{(1+r)^n} + \frac{FV}{(1+r)^n}$$

Where

P is the present market price of the instrument

C is the annual coupon payment

N is the number of years to maturity

FV is the face value of the instrument (usually 100)

For portion of a year we use the 30/160 conversion, which assumes that each month has 30 days and each year 360 days.

Eurocurrency Time Deposits and Certificates of Deposit

The overwhelming majority of bank deposits in the Eurocurrency market take the forms of non negotiable time deposits. An investor puts her money in credit suisse, London branch, today: she gets it back, plus interest in three months time. Canceling a time deposit is awkward and expensive, so the investor sacrifices liquidity. Those who want greater liquidity invest in shorter maturities. A very high proportion of Eurodollar time deposits, especially in the interbank market, mature in one week or less.

Alternatively, the investor can buy a negotiable Euro certificate of deposit (Euro CD), which is simply a time deposit that is transferable and thus has the elements of a security. Some banks are a little reluctant to issue CDs, because they would prefer not to have their paper traded in a secondary market, especially at times when the bank might be seeking additional short term funding. The secondary paper might compete with the primary paper being offered. Others will issue CDs readily if investors prefer them, perhaps paying $\frac{1}{4}$ percent or more below their equivalent time deposit rate to reflect the additional liquidity and the somewhat greater documentary inconvenience of CDs.

Other banks (particularly if they wish to have their names better known in the market) might deliberately undertake a funding program using Euro CDs. In this circumstance, the CDs are to be distributed like securities, so as to increase awareness of the issuer's name and raise a larger volume of funds for longer maturities than might be possible in the conventional eurodeposit market.

Bankers Acceptances and Letters of Credit

Banker's acceptances are money market instruments arising, typically, from international trade transactions that are financed by banks. The banker's acceptance (BA) itself represents an obligation by a specific bank to pay a certain amount on a certain date in the future. To simplify a bit, it is a claim on the bank that differs little from other short term claims such as CDs. Indeed BAs, when they are traded in a secondary market, trade at a return that seldom deviates much from comparable CDs issued by the same bank.

Letters of credit (L/C) are documents issued by banks in which the bank promises to pay a certain amount on a certain date, if and only if documents are presented to the bank as specified in the terms of the credit. A letter of credit is generally regarded as a very strong legal commitment on the part of a bank to pay if the conditions of trade documents are fulfilled.

In a typical export transaction, the exporter will want to be paid once the goods arrive (and are what they are supposed to be) in the foreign port. So the exporter asks for acceptance from the importer's bank of a time draft (essentially an invoice that requests payment on a future date). Upon acceptance by the importer's bank, the innocuous little time draft becomes a valuable document, a banker acceptance. Acceptance means that the bank obliges itself to pay the face amount upon the due date.

The means by which an exporter gets paid is by selling this BA to its own bank, which can hold it as an investment or sell it in the secondary market, when it becomes a

money market instrument. Bankers acceptances are sold at a discount from face value, like Treasury bills and commercial paper, and yields are quoted as discount yields. Why should the bank pay the exporter? The reason is that it has promised the exporter that it will do so upon presentation of documents conveying title to the goods. That promise is what we have described as the letter of credit.

Stand by letters of credit are related instruments entailing a commitment to pay on the part of a bank, but they normally do not involve the direct purchase of merchandise or the presentation of title documents.

Euronotes and Eurocommercial Paper

These instruments are short term unsecured promissory notes issued by corporations and banks. Euronotes, the more general term, encompasses note issuance facilities, those that are underwritten, as well as those that are not underwritten. The term Eurocommercial paper is generally taken to mean notes that are issued without being backed by an underwriting facilities that is, without the support of a medium term commitment by a group of banks to provide funds in the event that the borrower is unable to roll over its Euronotes on acceptable terms. The Euronotes market takes the form of non underwritten Eurocommercial paper (ECP), so the actual paper that an investor will find available for investment is likely to be ECP.

Like US commercial paper, Euronotes and ECP are traded by conversion on a discount basis, and interest is calculated as “actual/360,” meaning that the price is set as 100 minus the discount interest rate multiplied by the actual number of days to maturity, over 360.

International Financial Market Instruments

Funds are raised from the international financial market also through the sale of securities, such as international equities or Euro equities, Euro bonds, medium term and short term Euro notes and Euro commercial papers.

International Equities

International equities or the Euro equities do not represent debt, nor do they represent foreign direct investment. They are comparatively a new instrument representing foreign portfolio equity investment. In this case, the investor gets the dividend and not the interest as in case of debt instruments. On the other hand, it does not have the same

pattern of voting right that it does have in the case of foreign direct investment. In fact, international equities are a compromise between the debt and the foreign direct investment. They are the instruments that are presently on the preference list of the investors as well as the issuers. This has enabled Euro equity issues to surge to US \$ 7.3 billion during 1990 and to US \$ 44 billion in 1995 (BIS, 1997) from a mere US \$ 2.7 billion during 1985.

Benefit to Issuer/ Investor

The issuers issue international equities under certain conditions and with certain objectives. First, when the domestic capital market is already flooded with its shares, the issuing company does not like to add further stress to the domestic stock of shares since such additions will cause a fall in the share prices. In order to maintain the share prices, the company issues international equities. Secondly, the presence of restriction on the issue of shares in the domestic market facilitates the issue of Euro equities. Thirdly the company issues international equities also for the sake of gaining international recognition among the public. Fourthly, international equities bring in foreign exchange which is vital for a firm in a developing country. Fifthly, international capital is available at lower cost through the Euro equities. Sixthly, funds raised through such an instrument do not add to the foreign exchange exposure.

From the viewpoint of the investors, international equities bring in diversification benefits and raise return with a given risk or lower the risk with a given return. If investment is made in international equities along with international bonds, diversification benefits are still greater.

Procedure of Issue

When a company plans to issue international equity, it decides about the size of the issue, the market where the equities are to be issued, the price of the issue, and about many other formalities. It approaches the lead manager normally an investment bank – which has a better knowledge of the international financial market. The lead manager examines the risk factors of the issue as well as its prospect. It suggests about the details of the issue as also whether the shares are to be routed through the American depository or through the global depository. When the lead manager gives a green signal, the issuing company prepares the prospectus, etc. and takes permission from the regulatory authorities. After getting approval from the regulatory authorities, it deposits the shares to be issued with the custodian bank located in the domestic country. The custodian bank is appointed by the depository in consultation with the share issuing company.

When the shares are deposited with the custodian bank, the latter asks the depository located in a foreign country to issue depository receipts in lieu of the shares held. The ratio between the number of shares and the number of depository receipt is decided well before the actual issue, In fact, the fixing up of the issue price or the ratio between the depository receipts and the shares depends upon a host of economic variables. Generally the issues are priced at discount insofar as the earning per share drops in proportion to the increase in capital. The market price of depository receipt in international market is largely dependent upon earnings potential, industry fundamental, and macro economic fundamentals.

The depository, which is a bank or financial institution situated in a international financial centre, functions as a link between the issuing company and the investor. On getting information from the issuing company about the launch, the depository issues the depository receipts. The American depository issues American depository receipts (ADRs), while the depository in the international financial market outside the USA issues global depository receipts (GDRs).

When GDRs are purchased by the investors, the proceeds flow from the depository to the custodian bank and from the custodian bank to the issuing company. The company enters the name of the investor in the register of the shareholders. The investor has the right to surrender GDRs and to take back the investment. For the surrender, the investor deposits the GDRs with the depository who in turn informs the custodian who will issue the share certificates in exchange for the GDRs. The proceeds from the sale of shares are converted into foreign investors. It may be noted here that once the GDR is surrendered in exchange for the shares, such shares cannot be converted back into GDRs.

Again the investors can sell the GDR back in the issuing company's domestic capital market. In order to discourage this practice, the issuer introduced a clause, known as lock in period, during which this practice is prohibited.

In the process of the issue, the role of underwriting and listing is very important. The lead manager functions normally as an underwriter and charges underwriting fee, the listing agent, who is normally the lead manager, makes an application to the stock exchange for listing. The agent guides the issuing company and helps it file the required documents with the stock exchange. After the formalities are complete, GDRs are traded on the stock exchange. There are also international clearing houses, such as Euro – clear and CEDEL that facilitate the settlement of transactions.

The question of voting rights is also important. Since GDR investors keep changing from time to time, they do not seem very much interested in the voting rights even though

these cannot be denied to them. There are different procedures followed in this respect. One is that the issuing company and the overseas depository enter into an agreement which enables a depository to vote either with the majority voters or according to the wishes of the management. In the other procedure, it is understood that the depository votes in the same proportion as the rest of the shareholders do. Again, there is one more alternative where the depository votes in accordance with the instructions of a nominee of the management.

The cost of international equity is normally not large, although commission, management fee, etc, are paid to the lead manager according to the different functions performed by it. The depository incurs some expenses. These approximate to 3 – 4 per cent of the issue amount.

Documentation

There are many documents used in the process of the issue of international equity. These are:

1. The prospectus containing detailed information about the issue and the issuer.
2. The depository agreement the agreement between the issuing company and the depository – that contains, among other things, the rules followed for converting the shares into GDRs and back.
3. The underwriting agreement concluded between the issuing company and the underwriter, normally the lead manager, accompanies the issue.
4. A copy of the agreement concluded between the custodian and the depository is also enclosed.
5. A copy of the trust deed is enclosed which provides for the duties and responsibilities of the trustee regarding servicing of the issue.
6. A copy of the agreement with the listing stock exchange is annexed so that the investors are well aware of the secondary market for the issue.

Besides a subscription agreement is also enclosed the means of which the lead manager and the syndicate members agree to subscribe to the issue.

International Bonds

International bonds are a debt instrument. They are issued by international agencies, governments and companies for borrowing foreign currency for a specified period of time.

The issuer pays interest to the creditor and makes repayment of capital. There are different types of such bonds. The procedure of issue is very specific. All these need some explanation here.

Types of International Bonds

Foreign Bonds and Euro Bonds

International bonds are classified as foreign bonds and Euro bonds. There is a difference between the two, primarily on four counts. First, in the case of foreign bond, the issuer selects a foreign financial market where the bonds are issued in the currency of that very country.

If an Indian company issues bond in New York and the bond is denominated in a currency other than the currency of the country where the bonds are issued. If the Indian company's bond is denominated in US dollar, the bonds will be used in any country other than the USA. Then only it will be called Euro bond.

Secondly, foreign bonds are underwritten normally by the underwriters of the country where they are issued. But the Euro bonds are underwritten by the underwriters of multi nationality.

Thirdly, the maturity of a foreign bond is determined keeping in mind the investors of a particular country where it is issued. On the other hand, the Euro bonds are tailored to the needs of the multinational investors. In the beginning, the Euro bond market was dominated by individuals who had generally a choice for shorter maturity, but now the institutional investors dominate the scenes who do not seek Euro bond maturity necessarily to march their liabilities. The result is that the maturity of Eurobonds is diverse. In England, Euro bonds with maturity between 8 and 12 years are known as intermediate Euro bonds.

Fourthly, foreign bonds are normally subjected to governmental regulations in the country where they are issued. For example in the case of Yankee bonds (the bonds issued in the USA), the regulatory thrust lies on disclosures. In some of the European countries, the thrust lies on the resource allocation and on monetary control. Samurai bonds (bonds issued in Japan) involved minimum credit rating requirements prior to 1996. But the Euro bonds are free from the rules and regulations of the country where they are issued. The reason is that the currency of denomination is not the currency of that country and so it does not have a direct impact on the balance of payments.

Global Bonds

It is the World Bank which issued the global bonds for the first time in 1989 and 1990. Since 1992, such bonds are being issued also by companies. Presently, there are seven currencies in which such bonds are denominated namely, the Australian dollar, Canadian dollar, Japanese yen, DM, Finnish markka, Swedish krona and Euro. The special features of the global bonds are:

- They carry high ratings
- They are normally large in size
- They are offered for simultaneous placement in different countries
- They are traded on “home market” basis in different regions.

Straight Bonds

The straight bonds are the traditional type of bonds. In this case, interest rate is fixed. The interest rate is known as coupon rate. It is fixed with reference to rates on treasury bonds for comparable maturity. The credit standing of the borrower is also taken into consideration for fixing the coupon rate.

Straight bonds are of many varieties. First, there is bullet redemption bond where the repayment of principal is made at the end of the maturity and not in installments every year. Second, there is rising coupon bond where coupon rate rises over time. The benefit is that the borrower has to pay a small amount of interest payment during early years of debt. Third, there are zero coupon bonds. It carries no interest payment. But since there is no interest payment, it is issued at discount. It is the discount that compensates for the loss of interest faced by the creditors. Such bond was issued for the first time in 1981. Fourth, in case of bond with currency options, the investor has the right to receive payments in a currency other than the currency of the issue. Fifth, bull and bear bonds are indexed to some specific benchmark and are issued in two tranches. The bull bonds are those where the amount of redemption rises with a rise in the index. The bear bonds are those where the amount of redemption falls with a fall in the index. Finally, debt warrant bonds have a call warrant attached with them. (Warrants are zero coupon bonds.) The creditors have the right to purchase another bond at a given price.

Floating Rate Notes

Bonds, which do not carry fixed rate of interest, are known as floating rate notes (FRNs). Such bonds were issued for the first time in Italy during 1970 and they have become

common in recent times. The interest rate is quoted as a premium or discount to a reference rate which is invariably LIBOR. The interest rate is revised periodically, say, at every three month or every six month period, depending upon the period to which the interest rate is referenced to.

For example, if the interest rate is referenced to one month LIBOR, it would be revised every month.

FRNs are available in different forms. In the case of perpetual FRNs, the principal amount is never repaid. This means they are like equity shares. They were popular during mid 1980s, but when the investors began to ask for higher rate of interest, many issuers could not afford paying higher rates of interest. Such bonds lost their popularity.

Secondly, there are minimax FRNs where minimum and maximum rates are mentioned. The minimum rate is beneficial for the investors, while the maximum rate is beneficial for the issuer. If LIBOR rises beyond the maximum rate, it is only the maximum rate that is payable. Similarly, the minimum rate is payable even if LIBOR falls below the minimum.

The third form is the drop lock FRN where the investor has the right to convert the FRN into a straight bond. Sometimes the conversion is automatic if the reference rate drops below a mentioned floor rate.

Fourthly, there is flop flop FRN. It was first issued by the World Bank. In this case, the investor has the option of converting FRN into a three month note with a flat three month yield. Again the note can be converted into a perpetual note after the completion of the three month period.

Fifthly, there are mismatch FRNs. In this case, the interest rate is fixed monthly, but interest is paid six monthly. In such a situation, the investor may go for arbitrage on account of difference in interest rates. Such FRNs are also known as rolling rate FRNs.

Sixthly, one of the recent innovations has come in form of hybrid fixed rate reverse floating rate notes. They were used in Deutsch mark segment of the market in 1990. These instruments paid a high fixed interest rate for a couple of years.

The investors received the difference between LIBOR and even a higher fixed interest rate. They reaped profits with the lowering of LIBOR.

Convertible Bonds

International bonds are also convertible bonds meaning that these variant are convertible into equity shares. Some of the convertible bonds have detachable warrants involving acquisition rights. In other cases, there is automatic convertibility into a specified number of shares.

Convertible bonds command a comparatively high market value because of the convertibility privilege. The value is the sum of the naked value existing in the absence of conversion and the conversion value. The conversion price per share is computed by dividing the bonds face value by the conversion factor, where the conversion factor represents the number of shares into which each bond could be exchanged. Suppose, a bond having a face value of \$ 1000 can be exchanged for 15 shares the conversion price will be equal to;

$$1000/15 = \$ 66.66$$

Thus, if the market price of share is less than \$ 60, bondholders will not be interested in converting the bond into equity share. This is so because for a bond of \$ 1000, a creditor will get 15 shares or \$ 900 only. But if the market price of share is \$80, the investors will convert the bond into equity shares and sell the equity shares in the market. This way each bond for \$ 1000 will fetch \$ 1200. In other words, the price of convertible bonds depends upon the price of the equity shares.

In the case of bonds with detachable warrants, the warrant can be detached from the bond and cab be traded independently. The issuer has a double source of financing. The bonds remain outstanding even if the warrants are exercised.

From the viewpoint of the borrowers, convertible bonds cost less because they have lower coupon. They also help decrease the debt equity after conversion. From the investor's point of view, convertible bonds represent a better option as the investors get a fixed income in the form of interest prior to conversion. After conversion, they become the owner of the company.

Cocktail Bonds

Bonds are often denominated in a mixture of currency. Such bonds are known as cocktail bonds. There are two forms of cocktail bonds – one is denominated in SDRs represent a weighted average of five currencies, while the Euro represents a basket of 11 currencies. The investors purchasing the cocktail bonds get automatically the currency

diversification benefits. The foreign exchange risk on account of depreciation of any one currency is offset by appreciation of another currency.

Procedure of Issue

There are different stages involved in the issue of international bonds. Since the issuer – normally a government or a company – does not have a detailed idea about the international financial market, nor it is easy for the issuer to perform several formalities, it approaches a lead manager who advises the issuer on different aspects of the issue. Normally, the lead manager is a commercial bank or an investment bank. The issuer selects a particular lead manager on the reports published by different agencies about the performance of the investment banks in the area of lead managing. The lead manager advises the issuer regarding the main features of the issue, the timing, price, maturity and the size of the issue and about the buyer's potential. The lead manager takes help from the co-manager, although the bulk of the work is done by itself.

After getting advice from the lead manager, the issuer prepares the prospectus and other legal documents. In this process, the issuer's own accountant, auditors, legal counsel are very important for designing the issue in accordance with the financial need of the company as well as with regulatory provisions existing in the country. Sometimes the advice of the lead manager is also sought in order to make the issue suitable for indicators prevailing in the international financial market. The lead manager charges fee for the advice. The fee is known as management fee. When all this is over, the issuer takes approval from the regulatory authorities. After the approval, it launches the issue.

The second stage begins when the issue is launched. Investors look at the credit rating of the issuer as well as who is underwriting the issue. This is why the lead manager along with co-managers helps in the credit rating of the issuer by a well recognized credit rating institution. At the same time, it functions as an underwriter and charges underwriting fee.

The third stage begins after the underwriting process is complete. This stage includes the process of selling the bonds. More often, the lead manager functions as a selling group and for that it charges commission at varying rates.

The investors, on the other end, are individuals. They are institutions, such as investment trust, banks and companies. They often purchase the bond through their buying agents. There are also trustees who are usually a bank appointed by the issuer. Their duty is to protect the interest of the investors, especially in case of default by the borrower.

Sometimes the lead manager acts as a trustee. Finally, there are listing institutions. They enlist the bonds for secondary marketing. The secondary market for international bonds is mainly an over the counter market, although the bonds are listed with the stock exchanges.

It may be noted that the entire procedure of the international bond issue is complete within a specified time span. After the press release of the prospectus, it takes 27 days. The first 12 days are spent on sales campaign which is known as the offering period. On the 12th day, underwriting agreement is signed, which is known as the pricing day. During the following 15 days, bonds are sold and delivered and the necessary payments made.

Documentation

Documentation requirements for a bonds issue are complex. There are seven documents that are required.

- The first is the prospectus. It informs about the issuer, its management and about its past, present and future operation. It also covers the political and economic make up of the country.
- The second is the subscription agreement. It comprises denomination, coupon rate, issue price and maturity of the bond, underwriting commitments, details of selling arrangements, closing date and the terms of payment, names of the paying agents and trustees, details of listing conditions under which agreement can be terminated, the legal jurisdiction and rules regarding compensation in case of misrepresentations or breach of warranties.
- The third important document is the trust deed which is an agreement between the issuer and the trustee for an orderly servicing of the bond.
- The fourth document is the listing agreement that shows listing centers.
- The fifth document is the paying agency agreement executed between the issuer and the bank that pays the agent for servicing of the bond.
- The sixth document is the underwriting agreement that brings in confidence among the investors.
- The last document is a copy of the selling group agreement that tells about the agencies involved in the sale of the bond. All these documents accompany the bond certificate.

Secondary Market Operation

Facilities do exist for secondary market operation for foreign bonds and Euro bonds. In the case of the former, listing is done on a particular stock exchange in a particular country. But for Euro bonds, many financial centers are involved. This is why transaction takes place in over the counter market. However listing with international stock exchange helps Euro bonds in determination their price, depending upon the performance of the issuer and the demand for the issue. When the price is determined and the issue is ready for sale, the stock exchange helps the deal. Normally, there is spread of one half of one per cent between bid and offer prices. Settlement instructions are routed through the clearing house located in Brussels and Luxembourg, and delivery of bonds is made against payment. Clearing may also take place through book entries.

Sometimes, before the secondary market starts functioning, the particular Euro bond is in great demand. Such trading is known as grey trading, although such cases are rare.

For smooth operation of the clearing houses and operation of the secondary market, there is an Association of International Bond Dealers, which was set up under Swiss law as far back as in 1969. It frames rules for smooth operation.

Development of International Bond Market

Foreign bonds emerged on a substantial scale as early as in 1950s. The US dollar was then the strongest currency. In order to obtain US dollar, issuers from different countries issued bonds in the US financial market. These Yankee bonds were very popular. However, with weakening balance of payments, the US Government imposed restrictions on the issue of Yankee bonds in 1960s. The restrictions provided impetus for the emergence of Euro bonds. The first Euro bond was issued by an Italian borrower, Autos trade in 1963. Many other Euro bonds were issued subsequently. But since bank lending dominated the financial scene till early 1980s, sizeable growth in Euro bond market took place only thereafter. The total bond volume increased from US \$ 38 billion in 1980 to US \$169 billion in 1985 and to US \$ 230 billion in 1990 (BIS, 1992).

During 1990s, owing to greater liberalization in the international financial market, which was more apparent in Germany, France and Japan, the size of the bond market grew at a faster rate. By March 1995, the amount involved was over US \$ 2210 billion. In 1995, the straight bonds dominated the scene as they accounted for over three fourths of the issue. FRNs accounted for around one – seventh. The rest was accounted for by convertible bonds.

Again, it was found that Japanese yen denominated bonds were mainly fixed rate bonds, while floating rate bonds were denominated mainly in A British pound. The Swiss franc denominated bonds were normally the convertible bonds (BIS 1997). Yet again, around two fifths of the total issues in 1995 were denominated in US dollar, a little less than one fifth in Japanese yen, about one seventh in DM, and the rest of the bonds were denominated in other currencies. In the case of bonds issued by the firms and governments of developing countries, 57 per cent of the issue was represented by US dollar and over one- quarter was denominated in Japanese yen. The share of DM was hardly one- tenth. The value of yen bonds increased during 12990s because may Latin American Brady bonds came to be denominated in yen in view of greater attraction for them among Japanese investors (BIS 1997).

In 1995 the average size of maturity of international bonds was 4.3 years, but subsequently, it rose due to longer term bonds issued by many corporations. Again, after the Mexican crisis of 1994, some of the Latin American governments tried to re establish benchmarks in international financial market and issued international bonds. This resulted in the growth of sovereign bonds during these years.

Short – Term and Medium – Term Instruments

Euro Notes

Euro Notes are like promissory notes issued by companies for obtaining short term funds. They emerged in early 1980s with growing securitization in the international financial market. They are denominated in any currency other than the currency of the country where they are issued. They represent low cost funding route. Documentation facilities are the minimum. They can be easily tailored to suit the requirements of different kinds of borrowers. Investors too prefer them in view of short maturity.

When the issuer plans to issue Euro notes, it hires the services of facility agents or the lead arranger. On the advice of the lead arranger, it issues the notes, gets them underwritten and sells them through the placement agents. After the selling period is over the underwriter buys the unsold issues.

When the issuer plans to issue Euro notes, it hires the services of facility agents or the lead arranger. On the advice of the lead arranger, it issues the notes, gets them underwritten and sells them through the placement agents. After the selling period is over, the underwriter buys the unsold issues.

The Euro notes carry three main cost components: 1, underwriting fee; 2, one time management fee for structuring, pricing and documentation; and 3, margin on the notes themselves. The margin is either in the form of spread above/below LIBOR or built into the note price itself.

The documentation is standardized. The documents accompanying notes are usually underwriting agreement, paying agency agreement, and information memorandum showing, among other things, the financial position of the issuer. The notes are settled either through physical delivery or through clearing.

In course of time, a few variants of Euro notes issue system have evolved. The first is the revolving underwriting facility in which there is a sole placement agent who allocates the notes among investors at a uniform pre set yield. The second is the tender panel system in which the placement agent forms a panel of banks for placing Euro notes on behalf of the issuer. The tender panel members submit tenders to the placement agent indicating the amount and price of notes they would like to acquire. In this case, price is set by open competition and so it goes in favour of the issuer. But the placement agent may not have the same level of commitment as it is found in the case of the sole placement agent. The third variant is continuous tender panel in which the underwriters constitute a tender panel for each draw down of notes. They buy them, if left unsold, during the offer period. This system brings in competition among the underwriters.

Euro Commercial Papers

Another attractive form of short term debt instrument that emerged during mid – 1980s came to be known as Euro commercial paper (ECP). It is a promissory note like the short term Euro notes although it is different from Euro notes in some ways. It is not underwritten, while the Euro notes are underwritten. The reason is that ECP is issued only by those companies that possess a high degree of rating. Again, the ECP route for raising funds is normally investor driven, while the Euro notes is said to be borrower driven.

ECP came up on the pattern of domestic market commercial papers that had a beginning in the USA and then in Canada as back as in 1950s. The prefix “Euro” means that the ECP is issued outside the country in the currency in which it is denominated. Most of the ECPs are denominated in US dollars, but they are different from the US commercial papers on the sense that the ECPs have longer maturity going up to one year. Moreover, ECPs are structured on the basis of all in costs, whereas in US commercial papers, various charges, such as front end fee and commission are collected separately.

The detailed features of ECPs vary from one country to another. They involve market based interest rate, LIBOR. The issue is normally arranged through placement agents as in the case of Euro notes. The amount varies from US \$ 10 million to US \$ 1 billion or above. The ECPs are issued either in interest bearing form or in a discounted form with interest built in the issue price itself. On completion of the maturity, they are settled generally at the clearing houses, such as Cedel (Luxembourg) Euro clear (Brussels), First Chicago (London) or Chases Manhattan (London) so that the physical delivery is avoided. The settlement is complete normally within two days.

ECPs face minimal documentation. Over and above, they are not underwritten. This is why their use has been large since their very inception. The outstanding amount of transaction through ECPs rose from US \$ 13.9 billion in 1986 to US \$ 79.6 billion in 1991. By March 1995, the amount was US \$ 81.3 billion, over three fourths of which were denominated in the US dollar (BIS, 1997).

Medium- Term Euro Notes

Medium term Euro notes are just an extension of short term Euro notes as they fill the gap existing in the maturity structure of international financial market instruments. They are a compromise between short term Euro notes and long term Euro bonds as their maturity ranges between one year and five to seven years.

The short term Euro notes are allowed to roll over repeatedly over five to seven years. Every three or six months, the short term Euro notes are redeemed and a fresh issue is made. Alternatively, a medium term Euro note is issued to get medium term Euro note is issued to get medium term funds in foreign currency without any need for redemption and fresh issue.

Medium term Euro notes are not underwritten, yet there is provision for underwriting. This is for ensuring the borrowers that they get the funds even if they lack sufficient creditworthiness. They are issued broadly on the pattern of US medium term notes that are found there since early 1970s. Medium term Euro notes carry fixed rate of interest, although floating rates are also there. In recent years, multicurrency structure has come up. The issuers are mainly banks, sovereigns and international agencies.

The medium term Euro notes been popular. The outstanding amount, which was just US \$ 0.4 billion at the end of 1986, grew to US \$ 9.6 billion by 1990 and to US \$ 347.1 billion by March 1995 (BIS, 1997). The galloping growth in such issues shows the tremendous popularity of this instrument.

Of late, the Euro market has come up with global medium term note issues. Under this programme, issues of different credit ratings are able to raise funds through accessing retail as well as institutional investors. This is a comparatively new programme.

Overview of the Financial International Financial Market

When a multinational enterprise finalizes its foreign investment project, it needs to select a particular source, or a mix of sources of funds to finance the investment project. Here it may be noted that a multinational enterprise position itself on a better footing than a domestic firm as far as the procurement of funds is concerned. A domestic firm gets funds normally from domestic sources. It does get funds from the international financial market too but it is not as easy as in case of a multinational enterprise. The latter can use the parent company's funds for its foreign investment project. It can also get funds from the host country financial market, but more importantly, it tries to get funds from the international financial market. It selects a particular source or a mix of sources or a particular type or types of funds that suits its corporate objectives.

Channels for International Flow of Funds

The international financial market can be compartmentalized into two segments. One is the international money market which is represented by the flow of short term funds. International banks or the short term securities come under this segment. On the other hand, the international capital market forms the other segment where medium and long term funds flow.

Irrespective of such a distinction between the two segments, there are a number of agencies and instruments through which funds move to be official or non official. Among the official agencies, are the multilateral institutions, such as international development banks and regional development banks, and the bilateral agencies, such as the different governmental agencies. Multilateral or bilateral funds can be concessional or nonconcessional. The highly concessional funds or funds having a large grant element are known as official development assistance.

The non official channel comprises the borrowing and the lending streams such as the international banks on the one hand, and on the other, the securities market in which the Euro equities and the debt instruments, such as international bonds, medium term Euro notes, short term Euro notes and Euro commercial papers are sold and purchased. It may be noted that the operation of the international financial market spreads beyond the lending and borrowing of funds or the sale and purchase of securities. Swap is also very common and it forms an integral

part of international financial market. If a borrower needs fixed rate funds but has access to the floating rate loan market, he can go in for an interest rate swap in order to exchange the floating rate loan for the fixed rate loan. Similarly, if a borrower does not get loan in a particular currency, the loan can be swapped for obtaining the desired currency.

International Financial Market

- Official sources
 - Multilateral agencies
 - International development banks, such as the world Bank, IFC, etc
 - Regional development banks, such as Asian Development Bank, etc
 - Bilateral agencies or the different governmental agencies
- Non governmental agencies
 - Borrowing and lending market involving international banks
 - Securities market
 - Debt securities
 - Equities

Changing Structure of the International Financial Market

Multilateral Agencies

When one studies the development of the international financial market over the past half century, many structural changes are manifest over the years. This has been in fact the result of the changing supply position of and demand position for international funds consequence upon the large scale adoption of economic development programmes, growth of international trade, and the fast growing activities of the multinational corporations. On scrutinizing the official channels, it is found that up to the mid 1940s, there was no multinational agency to provide funds and only in 1945 was the international Bank for Reconstruction and Development (IBRD) established that provided in the beginning loans for reconstruction of the war ravaged economies of Western Europe and then from 1948 began providing development loans.

The IBRD function was limited to lending and so the provision of equity finance lay beyond its scope. Moreover it lent only after the guarantee by the borrowing government. To overcome these problems, the International Finance Corporation (IFC) was established in 1956 which provided loans even without government guarantee and provided equity finance as well. However one unsolved problem remained. It was that the poorer countries of the developing

world were not in a position to utilize the costly resources of the IBRD because those funds carried the market rate of interest (Sharan, 1991). For their benefit, another sister institution was created in 1960 named as International Development Association (IDA). The two institutions IBRD and IDA together came to be known as the World Bank.

When IBRD was established, its main objective was not to make direct loans but to encourage private investment. It began lending on a large scale only when the desired amount of private investment failed to come up. Lending then became its major function but the issue of encouragement to international investment remained. And to this end, the Multilateral Investment Guarantee Agency (MIGA) was established in 1988 to cover the non-commercial risks of the foreign investors. All these four institutions – IBRD, IDA, IFC and MIGA – together are now known as the World Bank Group.

When the World Bank Group emerged as a major funding agency, it was felt that its lending norms did not equally suit different member countries because the economic and political conditions as well as the requirements of the different regions of the globe were different. Thus, for tuning of the funding in line with varying requirements of the different regions, it was decided to set up regional development banks on the pattern of the international development banks. The decade of the 1960s marked the establishment of regional development banks in Latin America, Africa and Asia. The Asian Development Bank began operation from December 1966.

Bilateral Agencies

The history of bilateral lending is not older than that of multilateral lending. During the first half of the twentieth century, funds flowed from the empire to its colonies for meeting a part of the budgetary deficit of the colonial government but it was not a normal practice, nor was it ever considered as the external assistance that we mean in the present day context. Bilateral economic assistance was for the first time announced by the US president Truman in January 1951. In fact the motivation behind the announcement was primarily political and economic. The cold war between the USA and the then USSR was at its peak those days and the US government tried to befriend the developing countries to bring them into its own camp in order to make itself politically more powerful. It would help the US economy to come close to the developing economies and also to get the desired raw material and foodstuffs therefore. The economic assistance could help build the infrastructural facilities in the developing countries that could in turn help increase the US private investment in those countries.

In the second half of the 1950s, the USSR bloc too announced its external assistance programme in order to counter the US move. By the later 1950s, many other governments of

the organization of Economic Cooperation and Development (OECD) announced external assistance programmes and bilateral lending came into full bloom from the 1960s. In some cases, government joined hands with private agencies and the export credit came to form a sizeable part of the bilateral assistance programme.

Factors Behind Emergence of Euro Banks

It may be mentioned that after Stalins death, the then USSR moved away from the closed economic policy and its trade with the West and the South began to expand since the later 1950s or the early 1960s. Those days the US dollar was the most desired currency in international transactions, so the USSR earned US dollars through trade and tried to earn more of this currency in view of its great strength in international transaction. Since the cold was between the two super powers was then at its peak, it preferred to keep its earned dollars in a bank outside the USA. London and a few other European financial centres were the best choice as they possessed the requisite infrastructure and a stable political climate. Those dollar deposits in London and other European country based banks came to be known as Euro dollars and the banks accepting such deposits came to be known as Euro banks.

In the wake of the foreign exchange crisis of 1955 – 57, the British government placed restrictions on the use of pound sterling for external transactions and the dollar was in great demand in the UK for external transactions, in view of the readily available supply of dollars. Moreover, the emerging convertibility of some European currencies by late 1950s led to the emergence of an active foreign exchange market in Europe linking the US dollar with those European currencies. These links enhanced in turn, the use of the US dollar by the banks located in Europe.

The emergence of Euro banking got support from some capital control measures by the US government in the wake of the balance of payments crisis in the 1960s. In early 1965, the introduction of voluntary foreign directly to the non residents, whereas this provision did not apply to foreign branches of the US banks. As a result, the foreign operation of the US banks shifted from those located in the USA to those located in other countries, mainly in Europe. Statistics show that the number of US banks having foreign branches rose from 11 in 1964 to 125 in 1973, the number of foreign branches of those banks moved up from 181 to 699 during this period and the assets of those branches went up from US \$ 7.0 billion to US \$ 118 billion during the same period (Johnston, 1982).

Some of the European governments imposed restrictions on holding of deposits by non residents in domestic currency and on paying of interest on non resident deposits. This encouraged the non residents to hold deposits in Euro banks that were not subject to such

regulations. The US Government too imposed an interest rate ceiling when credit was tight and the market interest rate had risen. The US banks could not raise the interest rate. On the contrary, the Euro banks that were not under the purview of such ceilings, raised interest rate on deposits and attracted depositors away from the US based banks.

Again, when domestic credit was restricted, companies borrowed from Euro banks normally at lower rates of interest, and the increased lending and deposits contributed to the growth of the Euro banks. It was not only that the US banks came to be based in Europe; the European banks too spread their branches overseas perhaps as a defensive measure. Statistics reveal that the number of overseas branches increased from 1860 in 1961 to 3764 in 1973. The number of foreign branches of UK based banks alone rose from 1105 to 1973 during the same period (Bhatt, 1991).

Off – shore Banking Centre's

In the 1970s, a new type of international banks emerged that were different from the traditional banks or from the Euro banks and that came to be known as off – shore banking centres (OBCs). The distinctive feature of the OBCs was that they dealt with non residents only; although like the Euro banks, they did not deal in the currency of the host country. In fact, they channeled funds from one country to another without influencing the domestic financial market.

OBCs proliferated in those places and in those countries where: the governmental control and regulations were the least interfering, tax rates were very low, necessary infrastructure for their smooth operation, such as good systems of communication, a supportive climate and an experienced financial community, etc. existed, and which were politically and economically stable.

Looking at the specific cases, one finds that it was the non-flexibility of governmental restrictions that discouraged the growth of OBCs in Germany, France and Japan. On the other hand, it was this flexibility that helped London, Luxembourg, Singapore, Hong Kong and many others to attract OBCs. OBCs grew in the Bahamas, Luxembourg, Cayman Islands and in Panama in view of low rates of taxes. Better communication facilities and availability of experienced personnel were the additional factors for London based OBCs. Presence of exchange control measure came in way of the growth of OBCs in the Latin American countries.

On the contrary, Kuwait and Bahrain attracted OBCs on account of least governmental interference. Whatever might the reasons for their growth have been, the OBCs attracted a large number of borrowers and lenders. The foreign currency liabilities of OBCs in European

reporting countries rose from US \$ 79.3 billion in 1970 to US \$ 801 billion in 1979 and the total liabilities of US banks branches in the Bahamas and Cayman Islands alone grew from US \$ 4.8 billion to US \$ 121.8 billion during the same period (Johnson, 1982).

Syndication of Lending

Another structural change that took place during the 1970s was evident in the form of syndicated lending. In the wake of the international oil price rise, a number of oil – importing countries experienced huge deficit on their current account. Consequently, they had to resort to bigger loans that were normally not within the capacity of a single bank to provide. The banks joined hands for providing these large loans. They did it so also to reduce the individual risk of lending. Besides, from the borrower's point of view, the cost of the syndicated loans was smaller than the sum of the cost of individual loans borrowed from many banks.

Whatever the reasons for the coming together of the banks, such lending came to be known as syndicated lending. Such loans served the interest of both lenders and borrowers and so they took a great leap forward. Taking birth in early 1970s, they crossed US \$ 88 billion mark by 1980 and reached US \$ 320 billion by 1995 (IMF, 1997).

Syndicated loans are different from general loans in that one of the lending banks is the lead manager who originates the transaction, structures it, selects the lending members, supervises the documentation, and in many cases, services the loan after agreement is complete. It serves as a link between the borrower and the other banks of the syndicate. It collects interest and principal from the borrower and disburses the collected amount among the co-leaders. For its functions, the lead bank charges an additional fee.

Move Towards Securitisation

There was a big leap in bank lending during the 1960s and more particularly during the 1970s after the international banks had acquired the surplus of oil exporting countries. During the 1980s, however, a number of factors emerged on the international economy scene, which led to a shift from bank lending to growing Securitisation in the international financial market. With the stagnant oil prices, the international banks could not sustain any sizeable increase in loans, and external indebtedness in some of the borrowing countries turned unmanageable.

The borrowers found themselves unable to repay loans. Mexico's refusal to repay loans added fuel to the fire. The risk of repayment got so considerable that the banks hesitated in lending. A drop in long term interest rates during the 1980s, with the reappearance of positive

real interest rates, and more importantly, a rising trend in the yield from the long term bonds, investors preferred to invest in international bonds. The rising intermediation cost associated with bank lending also pushed the borrowers away from bank borrowing to borrowing through the use of securities (Honeygold, 1989). Moreover, the securities proved highly liquid as the investors could sell them in the secondary market which had also developed along with the growth in Securitisation.

The more commonly used securities were international bonds for long term funds, medium term Euro notes that were meant for medium term funds, and Euro bonds had taken birth in the earlier decade, but the other instruments emerged in the 1980s. The Euro equities were also issued through the global depository. Known as portfolio equity investment they became an important vehicle for transfer of resources in the international financial market during the later 1980s and 1990s.

Banks' Off – Balance Sheet Activities

The slump in the banks lending activities during the 1980s resulted not only in greater use of international securities but also in a shift in favour of the off balance sheet activities of the international banks. It was because the banks had to maintain their earnings and the capital adequacy norms in the wake of the eroded lending business.

These activities were nothing but the participation of the banks in the foreign exchange market. The banks involved themselves greatly in the swap deals, in the forward currency market, and in the market for currency options. The revolution in the telecommunication system and the greater use of computers eased their job considerably.

Apart from the fallen lending business, the other factor responsible for the growing off balance sheet activities was the fierce competition with the non banking financial companies. The banks were compelled to adopt additional functions in order to prove their superiority over the non banking companies.

Impact of Structural Change

Whatever the reasons for the structural change, there has definitely been product innovation and improvement in financial technology in the international financial market that has helped the borrowers as well as the lenders and investors. All this has led to a considerable cut in transaction cost and to greater efficiency in the allocation of capital that might have a positive bearing on the world output.

This is not all; with international diversification of the investment portfolio, the risk of investment has been reduced. The financial market now has greater liquidity as a result of which the volume of credit has increased. However, it cannot be denied that this has had an adverse effect on the traditional activities of the international banks. Since different segments of the international financial market are closely interwoven as a result of improvement in communication facilities, the shock in one part of the market is transmitted easily to other markets. Again, sometimes, the international financial market experiences an excess of liquidity which is not a healthy sign but the benefits from the structural change seem to outweigh the costs.

Selection of Sources and Forms of Funds

When a firm selects a particular source or form of funds, it does so in order to suit its corporate objectives. Some of the major objectives are the minimization of the effective cost of funds, matching the raised funds with target debt-equity, and the target current-liability-long-term-liability ratio, and avoidance of lengthy legal and procedural formalities.

Minimisation of Cost of Funds

Minimisation of the cost of capital is the very motive behind selection of the sources of funds. The effective cost of the funds depends inter alia on the rate of interest and the changes in the exchange rate or in the value of the borrowed currency. The effective cost of borrowing in a foreign market is obtained as

$$K_{bf} = (1 + r_f)(1 + E_f) - 1$$

Where r_f is the rate of interest in the foreign market and E_f is the change in the exchange rate.

For example, if interest rate in the London money market is 12 per cent compared to 14 per cent in New York, and the pound sterling is expected to appreciate by 4 per cent, the effective cost of borrowing in pounds would be

$$(1.12 \times 1.04) - 1 = 16.48\%$$

In this case, the multinational enterprise will borrow from the New York money market despite the fact that the rate of interest is lower in the London money market because the effective cost of borrowing in pounds at 12% interest rate is

$$(0.6) \times$$

In case where the firm borrows from more than one financial market, the weighted average of effective cost of borrowing in different currencies is computed. Suppose the firm borrows not only in pounds but also in Japanese yen. Because there is 60.0 probabilities for 3.0 depreciation and effective cost of the yen with 13.0% interest rate is

$$\begin{aligned} & (0.6) \times \\ & = 0.10514 = 10.51\% \end{aligned}$$

If the firm borrows in the two currencies in equal proportion, the weighted average of effective cost of the total borrowing is

$$(15.58\% + 10.51\%)/2 = 13.05\%$$

In this case, the firm would like to borrow from the Japanese financial market in greater proportion so that the effective cost of total borrowing becomes lower.

Again the effective cost of total borrowing will be lower if there is negative correlation in the movement of the value of different currencies. The cost may move up if the correlation coefficient is positive. So the firm takes into account not only the expected change in the value of the currencies but also the correlation coefficient of the expected change in the value of different currencies so as to lower the effective cost of total borrowing.

In this case, the firm would like to borrow from the Japanese financial market in greater proportion so that the effective cost of total borrowing becomes lower.

Again the effective cost of total borrowing will be lower if there is negative correlation in the movement of the value of different currencies. The cost may move up if the correlation coefficient is positive. So the firm takes into account not only the expected change in the value of the currencies but also the correlation coefficient of the expected change in the value of different currencies so as to lower the effective cost of total borrowing.

Borrowing to Conform to Capital Structure Norms

The other question concerning sourcing of funds is related essentially to minimizing the cost of capital, but not through selection of currency of borrowing but by adhering to the capital structure norms. The net income approach suggests that with rise in debt equity ratio in the capital structure, the weighted average cost of capital slips downwards. It is because cost of debt is tax deductible and so it is lower than the cost of equity. The more the share of the cheaper form of capital in the capital structure, the lower is the overall cost of capital. On the other

hand, Miller and Modigliani feel that with the increase in debt ratio, the risk borne by the equity holders increases and as a result, the weighted average cost of capital remains the same despite any change in the debt equity ratio. The wide disparity between these two approaches has led to a middle approach, according to which, up to a certain level of debt equity ratio, the weighted average cost of capital goes on declining, but beyond that point, it tends to increase (Sharan, 1991).

Whenever a multinational enterprise raises funds, it does it through mixing debt capital with equity in a way that minimizes the cost of capital. However, the multinational firm is in a better position than a domestic firm as far as supporting a higher debt ratio is concerned because its cash flow is greatly diversified over different countries.

The study of Sekely and Collins (1988) examines the capital structure norms among 677 firms in 9 industries in 23 countries and finds that the debt ratio may be large or small depending upon economic, social, cultural and political factors. Since these factors vary among countries, the capital structure norms too vary widely among them. On the whole, debt ratio is found to be large in Scandinavian, Mediterranean and some of the Asian Countries. It is low in case of some of the South Asian, Latin American and Anglo American countries.

An important question that arises is whether the affiliates of the multinational corporations should follow the host country norms or be guided by their parent company norms. If the norms in the home country and the host country are similar, there is no problem, but if they are different, it becomes an important decision. If the capital structure norms conform to the local norms in the host country, they are well in line with the monetary and financial policy of the host government. They help evaluate return on equity investment relative to local competitors in a particular industry.

On the other hand, when the norms conform to the parent company global target debt ratio, they are more suited to maximizing the global profit. They may have a comparative advantage over the local firms in the host country. Moreover, a high debt ratio in one country may offset the low debt ratio in another country; and on the whole, it is best suited for the firm as a whole.

Selection of an Optimal Maturity

While raising funds from the international financial market, a multinational firm likes to maintain a proper balance between the short term liabilities and the long term liabilities. There is no confusion about financing of fixed assets because they are financed with long term capital but as far as financing of current assets is concerned, determining

the best ratio between the long term capital and the short term capital is an important issue. The normal view is that the permanent current assets should be financed with long term capital and the fluctuating part of the current assets should be financed with short term capital. This is but a trade off between liquidity and profitability.

Long term capital is more liquid but lowers profitability. Short term capital, on the other hand, does not pushdown profitability so much but is less liquid. However, if the finance manager is conservative, he uses more of long term capital. If he is aggressive Short term capital is greatly used. Thus whenever a multinational enterprise raises funds, it has in mind a perfect trade off between short term capital and long term capital.

Avoidance of Legal and Procedural Formalities

Any firm raising funds does not like to undergo too many procedural formalities. From this viewpoint, the issue of international bonds is too complex, much more complex than the Euro notes. Again the borrowing programme can be designed only in the framework of local laws. If the government prohibits the issue of a particular instrument, the borrower cannot issue it despite its cost efficiency. For example, prior to 1992, the Indian Government had not allowed the Indian companies to issue Euro equities or Euro Convertible bonds. Sometimes these considerations become really significant.

International Financial Markets and Instruments

The gap between savings and investment is widening gradually in the developing countries. The growing demand for capital inflows in the developing countries forced them to depend on external sources for debt or equity capital.

The need for external borrowings in a country's economy can be gauged from the national income and balance of payment position. From the macro economic theories, the current account surplus or deficit in BOP of a country is nothing but the difference between the domestic savings and domestic investments. If the domestic savings exceed domestic investment a surplus in current account would result increasing the reserves of the country. A deficit in current account would emerge if the domestic savings is less than domestic investment.

To recall from the chapter on BOP, national income can be defined in the following formats.

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

$$Y = C + S + T$$

Where,

Y = National Income	X: Exports
C = Consumption	M: Imports
I = Investment	S: Private savings
G = Government	T: Tax

By equating (i) and (ii) we get

$$\begin{aligned}C + I + G + (X - M) &= C + S + T \\ \text{i.e. } I + G + (X - M) &= S + T \\ \text{ie. } S + (T - G) &= I + (X - M)\end{aligned}$$

Since $(T - G)$ gives the public savings, we can write the above relationship as Private savings + Public savings = $I + (X - M)$ (iii)

If $(X - M)$ gives the net of foreign exchange inflows/outflows of the current account in BOP statement we can conclude in a broader perspective, that the gross domestic savings are equal to the sum of gross domestic capital formation and foreign investment.

Basing on BOP position of a country, the sources of external funds can be broadly classified into the following categories:

- i. External assistance in the form of aid.
- ii. Commercial borrowings.
- iii. Short-term credit.
- iv. Foreign direct investment.

The flow of external funds into a country depends on various factors like the policy guidelines of the country on commercial borrowings by individual entities, the exchange control regulations of the country, the interest rate ceilings in the financial sector and the structure of taxation. The integration of financial markets across countries has opened up the international markets and large varieties of financial instruments have merged to suit the changing needs of the international investor. In this chapter, we briefly discuss various instruments that are available in international financial markets.

The financial markets across countries facilitate the financial intermediation / disintermediation and transfer of surplus funds from the savers to the deficit units. The gradual

liberalization of the financial sector in the developing countries initiated in early '70s started providing multiple instruments to the savers and the issuers converging the needs of suppliers of the resources with that of the users of the resources.

Origin of International Financial Markets

The genesis of the present international markets can be traced back to 1960s, when there was a real demand for high quality dollar-denominated bonds from wealthy Europeans (and others) who wished to hold their assets outside their home countries or in currencies other than their own. These investors were driven by the twin concerns of avoiding taxes in their home country and protecting themselves against the falling value of domestic currencies. The bonds which were then available for investment were subjected to withholding tax.

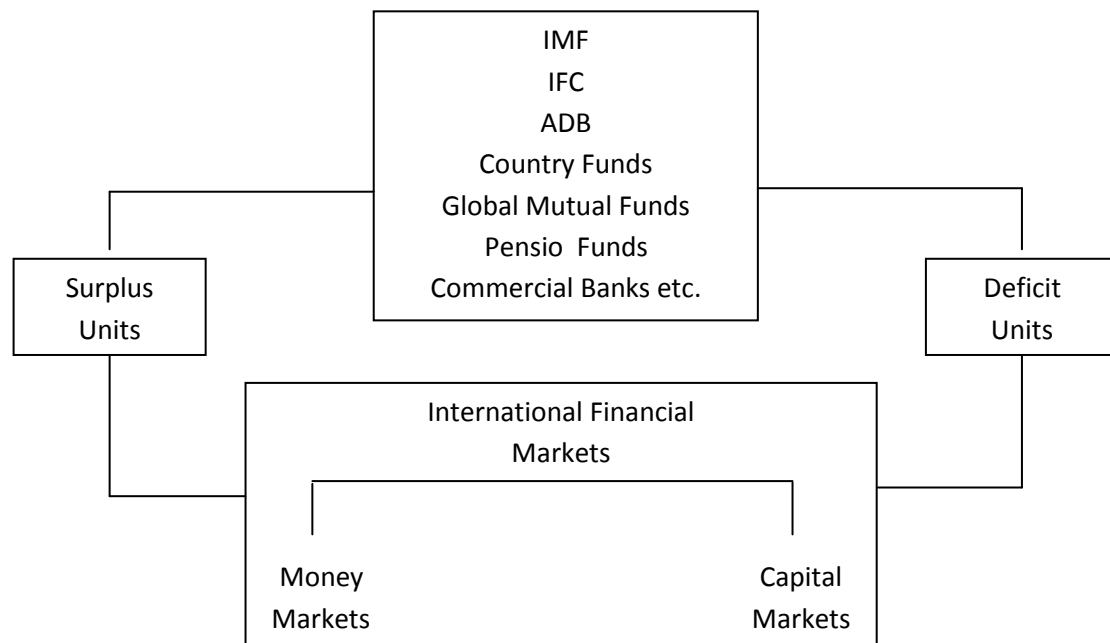
Further, it was also necessary to register the ownership of the bonds. Dollar denominated Euro-bonds were designed to address these concerns. These were issued in bearer forms and so, there was no record of ownership and no tax was withheld.

Also, until 1970, the International Capital Market focused on debt financing and the equity finances were raised by the corporate entities primarily in the domestic markets. This was due to the restrictions on cross-border equity investments prevailing until then in many countries. Investors too preferred to invest in domestic equity issues due to perceived risks implied in foreign equity issues either related to foreign currency exposure or related to apprehensions of restrictions on such investments by the regulators.

Major changes have occurred since the '70s which have witnessed expanding and fluctuating trade volumes and patterns with various blocks experiencing extremes in fortunes in their exports/imports. This was the period which saw the removal of exchange controls by countries like the UK, France and Japan which gave a further boost to financial market operations.

In addition to this, the application of new technology to financial services, the institutionalization of savings and the deregulation of markets have played an important role in channelizing the funds from surplus units to deficit units across the globe. The international capital markets also became a major source of external finance for national with low internal savings. The markets were classified into Euro Market, American Market and Other Foreign Markets.

The following figure shows the various sources of external finance and various channels for accessing external funds.



India's presence in International Markets

India has made its presence felt in the international financial markets though to a very small extent. There has been a total turnaround in the market sentiment for Indian paper since 1991-1992 – albeit with a difference.

So far the traditional avenues for raising capital abroad have been through bank borrowings, syndicated loans, lines of credit, bonds and floating rate notes. Access to the international capital markets was only through debt instruments and was mostly limited to financial institutions and public sector units, although there were a few cases of private companies also. With the downward revision of India's credit rating to the non-investment grade, borrowing in the international capital markets dried up with most of the Lenders being off limits (crossing the exposure limit) on India. The picture has since changed. There were a variety of reasons for the international markets to view India differently reforms.

- Improved perception of India's economic reforms
- Improved export performance
- Modest to healthy economic indicators
- Inflation contained to single digit
- Improved Forex reserves position
- Improve performance of Indian companies
- Improved confidence of the FIIs in the economy
- Lack of investment opportunities worldwide and
- Decline in rate of return on investments in developed markets.

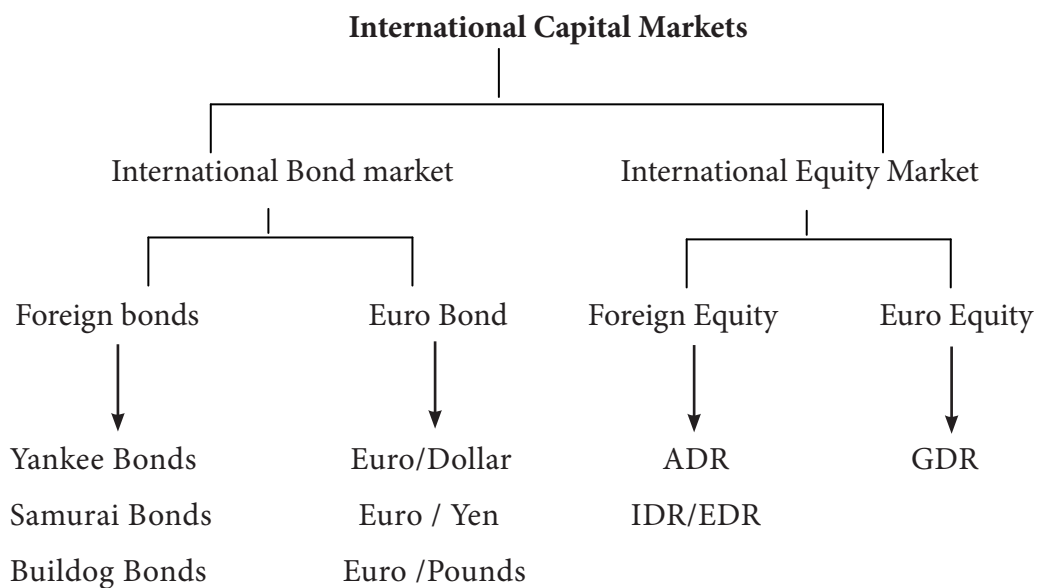
It was in March 1992, that the government first permitted a few Indian companies to tap the international equity market and till date a number of Indian companies have successfully taken the equity / equity-related route.

Instruments Available in the International Financial Markets

As in any domestic capital structuring we can segregate international financing into two broad categories. These are:

- i. Equity financing and
- ii. Debt financing.

The various instruments used to raise funds abroad include; Equity, straight debt or hybrid instruments. The following figure shows the classification of international capital markets based on instruments used and market(s) accessed.



Debt Instruments

The issue of bonds to finance cross-border capital flows has a history of more than 150 years. In the 19th century, foreign issuers of bonds, mainly governments and railway companies, used the London market to raise funds.

International bonds are classified broadly under two categories

Foreign Bonds: These are the bonds floated in the domestic market denominated in domestic currency by non-resident entities. Dollar denominated bonds issued in the US

domestic markets by non-US companies are known as Yankee Bonds, Yen denominated bonds issued in Japanese domestic market by non-Japanese companies are known as Samurai Bonds and Pound denominated bonds issued in the UK by non-UK companies are known as Bulldog Bonds. Similarly, currency sectors of other foreign bond markets have special names like Rambrand Dutch Guilder, and Matador Spanish Peseta etc.

Eurobonds: The term 'Euro' originated in the fifties when the USA under the Marshall Plan was assisting the European nations in the rebuilding process after the devastation caused by the Second World War. The dollars that were in use outside the US came to be called as "Eurodollars". In This context the term 'Euro' signifies a currency outside its home country. The term 'Eurobonds' thus refer to bonds issued and sold outside the home country of the currency. For example, a dollar denominated bond issued in the UK is a Euro (dollar) bond, similarly, a Yen denominated bond issued in the US is a Euro (Yen) bond.

The companies wishing to come out with shorter maturities have an option to issue Euronotes in the European Markets. The important ones being Commercial Paper (CP), Note Issuance Facilities (NIF) and Medium-Term Notes (MTNs).

Euro-Commercial Paper issued with maturity of up to one year, are not underwritten and are unsecured. Note Issuance Facilities (NIFs) are underwritten and have a maturity of up to one year. Standby NIFs are those formally designated instruments which back Commercial Paper to raise short-term finances. A variation of NIF is the Multiple Component Facility (MCF), where a borrower is enabled to draw funds in a number of ways, as a part of overall NIF program. These options are referred to as short-term advances and banker's acceptances, and afford opportunities for choosing the maturity, currency and interest rate basis.

Medium-Term Notes, on the other hand, are non-underwritten and are issued for maturities of more than one year with several tranches depending upon the preferred maturities. It is to be noted that in similar circumstances, a typical CP program allows for a series of note issues having regard to the maturity of the overall program.

The borrowings in the international capital markets are in the form of Euro Loans which are basically loans from the bank to the companies which need long-term and medium-term funds. Broadly, two distinct practices of arranging syndicated credits have emerged in Euromarkets, club loans and syndicated loans. The Club Loan is a private arrangement between lending banks and a borrower. When the loan amounts are small and the parties are familiar with each other; lending banks form a club and advance a loan hence the name of club loan. Syndicated Euro credit, however, has a full-fledged public arrangement for organizing a loan transaction.

It is treated as an integral part of the financial market mechanism with a wide network of banks participating in the transaction over the globe. Typically, a syndicated loan is available for a maturity of seven years with shorter period transactions having a maturity of 3 to 5 years.

Equity Instruments

Until the end of 1970s, International Capital Markets focused on debt financing and the equity finances were raised by the corporate entities primarily in the domestic markets. This was due to restrictions on cross-border equity investments prevailing until then in many countries. Investors too preferred to invest in domestic equity issues due to perceived risks implied in foreign equity issue either related to foreign currency exposure or related to apprehensions of restrictions on such investments by the national authorities.

Early '80s witnessed liberalization of many domestic economies and globalization of the same. Issuers from developing countries, where issue of dollar/foreign currency denominated equity shares are not permitted, are now able to access international equity markets through the issue of an intermediate instrument called 'Depository Receipt'.

A Depository Receipt (DR) is a negotiable certificate issued by a depository bank which represents the beneficial interest in shares issued by a company. These shares are deposited with a local 'custodian' appointed by the depository, which issues receipts against the deposit of shares.

According to the placements planned, DRs are referred to as (i) Global Depository Receipts (GDRs) (ii) American Depository Receipts (ADRs) and (iii) International Depository Receipts (IDRs). Each of the Depository Receipt represents a specified number of shares in the domestic markets. Usually, in countries with capital account convertibility, the GDRs and domestic shares are convertible (may be redeemed) mutually. This implies that, an equity shareholder may deposit the specified number of shares and obtain the GDR and vice versa. The holder of GDR is entitled to a dividend on the value of the underlying shares of the GDR (issued normally in the currency of the investor country). As far as Indian companies are concerned, the dividends are announced as a percentage of the value of GR sans premium in rupee terms converted at the prevailing exchange rate.

However, until the global Depository Receipts (GDRs)/American Depository Receipts (ADRs/International Depository Receipts (IDRs) are converted, the holder cannot claim any voting right and also, there is no foreign exchange risk for the company. These types of instruments are ideal for companies which prefer a large shareholder base and international presence. The company will be listed at the prescribed stock exchange providing liquidity for the instrument.

Quasi-Instruments

These instruments are considered as debt instruments for a time-frame and are converted into equity at the option of the investor (or at company's option) after the expiry of that particular time-frame. The examples of these are Warrants, Foreign Currency Convertible Bonds (FCCBs), etc. Warrants are normally issued along with other debt instruments so as to act as a 'sweetener'.

FCCBs have a fixed coupon rate with a legal payment obligation. It has greater flexibility with the conversion option - at the choice of the investor - to equity. The price of the conversion of FCCB closely resembles the trading price of the shares at the stock exchange. Also, the company may incorporate a 'call option' at the choice of the issuer to obtain FCCBs before maturity. This may be due to the adverse market conditions, changes in the shareholding pattern, changes of tax laws etc.

A Euro Convertible Bond is issued for investment in Europe. It is a quasi-equity issue made outside the domestic market and provides the holder with an option to convert the instrument from debt to equity. An added feature now-a-days is to allow conversion of Euro Convertible Bond into GDR. Till conversion, interest is paid in US dollars and bond redemption is also done in US dollars, thus while the investor would prefer the convertible bond as an investment instrument, the issuing company tends to prefer a GDR. An investor can exercise the conversion option at any time or at specified points during the convertible life. The investor exchanges the convertible bond for a specified number of shares.

Players in the International Financial Markets

Borrowers/Issuers, Lenders/Investors and Intermediaries are the major players of the international markets. The role of these players is discussed below.

Borrowers/Issuers

These primarily are corporates, banks, financial institutions, government and quasi-government bodies and supranational organizations, which need Forex funds for various reasons. The important reasons for corporate borrowings are, need for foreign currencies for operation in markets abroad, dull/saturated domestic market and expansion of operations into other countries.

Governments borrow in the global financial market for adjusting the balance of payments mismatches, to gain net capital investments abroad and to keep a sufficient inventory of foreign currency reserves for contingencies like supporting the domestic currency against speculative pressures.

Further, the supranational organizations like the International Monetary Fund (IMF), World Bank, International Finance Corporation, Asian Development Bank, etc., borrower usually, long-term funds to finance diversified financing, sometimes linked to swaps for hedging current/interest rate exposures. These supranational are also typical examples of large entities appearing in the global markets as both issuers and borers.

Lenders / Investors

In case of Euro-loans, the enders are mainly banks who possess inherent confidence on the credibility of the borrowing corporate or any other entity mentioned above. In case of a GDR, it is the institutional investors and high net worth individuals (referred as Belgian Dentists) who subscribe to the equity of the corporate. For an ADR, it is the institutional investor or the individual investor through the Qualified Institutional Buyer who puts in the money in the instrument depending on the statutory status attributed to the ADR as per the statutory requirements of the land. Investors in the global markets come in a large range who invest to suit their own requirements, investment objectives, risk taking abilities and liabilities. The investor range includes private individuals investing through Swiss banks, the IMF and the World Bank. The other major investors are insurance companies, professional pension fund managers and investment trusts. In the United Kingdom, with London still a major force in the international finance market, it is the pension fund and insurance companies which are the major investors in the equity markets and bond markets. In the USA and Japan, the private player has an important role in the equity markets. In Germany, on the other hand, commercial banks play a dominant role as investors.

Institutional investors can also be classified as:

Market Specific Investors: Specialize in specific instruments like equity, convertibles, fixed interest bonds, floating rate bonds, etc.

Time Specific Investors: Specialize in specific maturity instruments like long-term, medium-term, short-term etc.

Industry Specific Investors: Specialize in specific industries like chemical, pharmaceutical, steel, automobiles etc.

Intermediaries

The intermediaries involved in International Capital Markets include Lead managers/ Co-lead Managers, Underwriters, Agents and Trustees, lawyers and Auditors, Listing Agents and Stock Exchanges, Depository Banks and Custodians.

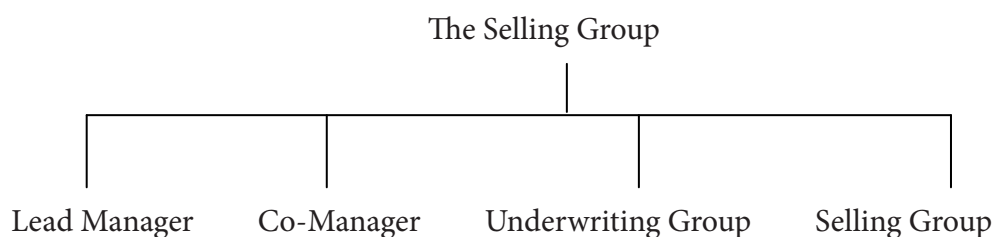
An overview of the functions performed by each of them is given below:

- i) **Lead and Co-managers:** The responsibilities of a Lead Manager include undertaking due diligence and preparing the offer circular, marketing the issues including arranging the road shows. Lead manager, sometimes in consultation with the issuer, can choose to invite a syndicate of investment banks to buy some of the Bonds/DRs and help sell the remainder to other investors. 'Co-managers' are thus invited to join the deal, each of whom agrees to take a substantial portion of the issue to sell to their investor clients. Quite often there will be more than one lead manager as mandates are sometimes jointly won, or the investment bank which actually won the mandate from the issuer may decide that it needs another institution to ensure a successful launch.

Two or more managers may also reflect the fact that a geographical spread of placing power is required or deemed appropriate.

One of the lead manager will 'run the books' for the issue. This essentially involves arranging the whole issue, sending out invitation telexes, allotting Bonds/DRs etc.

- ii) **Underwriters:** The lead manager(s) and co-managers act as underwriters for the issue, taking on the risk of interest rate / markets moving against them before they have placed Bonds/DRs. Lead manager(s) may also invite additional investment banks to act as sub-underwriters, thus forming a larger underwriting group. a third group of investment banks may also be invited to join the issue as members of selling group, but these institutions only receive a commission in respect of any Bonds /DRs sold and do not act as underwriters. The co-managers and the underwriters are also members of the selling group.



- iii) **Agents and Trustees:** These intermediaries are involved in the issue of bonds/convertibles. The issuer of bonds/convertibles, in association with the lead manager, must appoint 'paying agents' in different financial centers, who will arrange for the payment of interest and principal due to investors under the terms of the issue. These paying agents will be banks.

- iv) **Lawyers and auditors:** The lead manager will appoint a prominent firm of solicitors to draw up documentation evidencing Bond/DRs issue. The various draft documents will be scrutinized by lawyers acting for the issuer and in due course by the co-managers and any other party signing a document related to the issue. Many of these documents are prepared in standard forms, but each needs to be reviewed carefully to ensure that all parties to the transactions are fully satisfied with the wording. The issuer will also appoint legal advisors to seek advice on matters pertaining to Indian/English/American law and to comment on necessary legal documentation. Auditors or reporting accountants will become involved as well, supplying financial information summaries and an audit report which will be incorporated into the 'offering circular'. The auditors provide comfort letters to the lead manager on the financial health of the issuer. Further, they also provide a statement of difference between the UK and the Indian GAAP in case of GDR issue.
- v) **Listing Agents and Stock Exchanges:** The listing agent facilitates the documentation and listing process for listing on stock exchange and keeps on file information regarding the issuer such as Annual Reports, Articles of Association, the Depository Agreement, etc.

The Stock Exchange (Luxembourg/London/AMEX/NYSE as the case may be) reviews the issuers application for listing of the bonds/DRS and provides comments on offering circular prior to accepting the securities for listing.

- vi) **Depository Bank:** Depository Bank is involved only in the issue of DRs. It is responsible for issuing the actual DRs, disseminating information from the issuer to the DR holders, paying any dividends or other distributions and facilitating the exchange of DRs into underlying shares when presented for redemption.
- vi) **Custodian:** The custodian holds the shares underlying DRs on behalf of the Depository and is responsible for collecting rupee dividends on the underlying shares and repatriation of the same to the Depository in US dollars/foreign currency.
- vii) **Printers:** The printers are responsible for printing and delivery of the preliminary and final offering circulars as well as the DRs/Bond certificates.

See Appendix-IV for information about various intermediaries involved in international issues of SCICI Ltd. (Convertible Issue) and EID Parry Ltd. (GDR issue).

Resource Mobilization - the Decision Criteria

Resource mobilization at competitive cost is a critical issue which confronts every management. In the past, Indian companies could access only the domestic capital market. Liberalization process has opened new avenues for Indian companies in terms of markets and instruments.

- i. **Currency Requirements:** A decision has to be taken about the currency needs of the company, keeping in view the future expansion plans, capital imports, export earnings/potential export earnings. A conscious view on the exchange rate also needs to be taken.
- ii. **Pricing:** Pricing of an international issue would be a factor of interest rates and the value of the underlying stock in the domestic market. Based on these factors, the issue price conversion (for convertible) premium would be decided. Given the arbitrage available between interest rates in rupees and say, US dollars, and given the strength of the rupee, as well as the resilience a company can have in its operations against exchange fluctuation risk, due to export earnings, it is possible to take advantage of the low interest rates that are prevailing in the international markets. The above is possible without dilution of the value of the underlying stock. This is so, because, in the case of international issues, open pricing/book building is possible, which has the advantage of allowing the company to maximize the proceeds, enabling the foreign investors to set the premium ensuring transparency and creating price tension.
- iii. **Investment:** At present greater flexibility is available in structuring an international issue in terms of pure equity offering, a debt instrument or a hybrid instrument like Foreign Currency Convertible Bond (FCCB). Each company can take a view on instrument depending upon the financials of the company and its future plans.
- iv. **Depth of the Market:** Relatively larger issues can be floated, marketed and absorbed in international markets more easily than in the domestic markets.
- v. **International Positioning:** Planning for an international offering has to be a part of the long-term perspective of a company. An international issue positions the issuing company, for a much higher visibility and an international exposure. Besides, it opens up new avenues for further fund-raising activities.
- vi. **Regulatory Aspects:** For an international issue, approvals are required from the government of India and the Reserve Bank of India, whereas for a domestic issue the requirements to be satisfied are those of the SEBI and the stock exchanges.

- vii. **Disclosure Requirements:** The disclosure requirements for an international issue are more stringent as compared with a domestic issue. The requirements would, however, differ depending upon the market addressed and the place where listing is sought.
- viii. **Investment Climate:** The international offering would be affected by factors like the international liquidity and the country risk, which will not have an effect in a domestic issue. With the current country rating, companies have to depend on the strength of their balance sheets to raise funds at competitive rates the international markets.

Equity Instruments

Global Depository Receipts

The advent of GDRs in India has been mainly due to the balance of payments crisis in the early '90s. At this time India did not have enough foreign exchange balance even to meet the requirements of a fortnight's imports. International institutions were not willing to lend because of non-investment credit rating of India. Out of compulsions, rather than by choice, the government (accepting the World Bank suggestions on tiding over the financial predicament) gave the permission to allow fundamentally strong private corporate to raise funds in international capital markets through equity or equity-related instruments. The Foreign Exchange Regulation Act (FERA) was modified to facilitate investment by foreign investors up to 51% of the equity-capital of the companies. Investment even beyond this limit is also being permitted by the Government.

Prior to this, the companies in need of the foreign exchange component or resources for their projects had to rely on the government of India or otherwise rely partly on the government and partly on the financial institutions. These foreign currency loans utilized by the companies (whether through the financial institutions or through the government agency) were paid from the government allocation from the IMF, World Bank or other Government credits. This, in turn created liability for the remittance of interest and principal, in foreign currencies which was to be met by way of earnings through exports and other grants received by the government. However, with a rapid deterioration in the foreign exchange reserves consequent to Gulf War and its subsequent oil crisis, the companies were asked to get their own foreign currencies which led to the advent of the GDRs.

The Instrument

As mentioned earlier, GDRs are essentially those instruments which possess a certain number of underlying shares in the custodial domestic bank of the company. That is, a GDR is a negotiable instrument which represents publicly traded local-currency-equity share. By

law, a GDR is any instrument in the form of a depository receipt or certificate created by the Overseas Depository Bank outside India and issued to non-resident investors against the issue of ordinary shares or foreign currency convertible bonds of the issuing company. Usually, a typical GDR is denominated in US dollars whereas the underlying shares would be denominated in the local currency of the Issuer. GDRs may be – at the request of the investor – converted into equity shares by cancellation of GDRs through the intermediation of the depository and the sale of underlying shares in the domestic market through the local custodian.

GDRs, per se, are considered as common equity of the issuing company and are entitled to dividends and voting rights since the date of its issuance. The company effectively transacts with only one entity – the Overseas Depository – for all the transactions. The voting rights of the shares are exercised by the Depository as per the understanding between the issuing company and the GDR holders.

Issuance of GDR

The following are the sequence of activities that take place during the issuance of GDRs:

- a. **Shareholder Approval Needed:** The issuance of an equity instrument like the GDR needs the mandate of the shareholders of the company issuing it. The terms of the issue will have to be decided before such a mandate is sought from the shareholders. There should be an authorization from the Board of Directors for floating a Euro-issue and for calling a general meeting for the purpose. A committee of directors is generally constituted and conferred with necessary powers for the approval of (i) the offering memorandum; (ii) Fixation of issue price (iii) opening of bank account outside India and operation of the said account and (iv) for notifying the stock exchange about the date of the board meeting when the proposal will be considered and also inform it about the decisions taken.

After all this, the shareholders should approve the issue by a special resolution passed at a general meeting as per Section 81 of the Companies Act, 1956. It stipulates that, if a company proposes any issue of capital after two years from the formation of the company or at any time after one year from the allotment of shares that the company has made for the first time after its formation – whichever is earlier – the company has to offer such issues first to the shareholders of the company.

- b. **Appointment of Lead Manager:** Lead Manager is an important cog in the wheel of the Euro-issue and is the vital link between the government and investors with the issuers.

Practically, it is the lead manager who is responsible for the eventual success or failure of a Euro-issue when all the other factors are same. Hence, the choice of a suitable lead manager is as significant as any other issue activity. An ideal lead manager is selected after preliminary meetings with merchant bankers. The merchant bankers are evaluated on various parameters such as (i) Marketing ability (ii) Marketing research capability (iii) Market making capability (iv) Track record (v) Competitive fee structure and (vi) Placement skills. A beauty parade, which is basically the presentations made by the various merchant bankers, is held by the company to help it decide on the final choice of the lead manager after they are filtered by the above parameters. The final appointment of lead manager is done after the approval by the government.

The lead manager advises the company in the following areas after taking into consideration the needs of the company, the industry in which the company is engaged, the international monetary and securities markets, the general economic conditions and the terms of the issue viz., quantum of issue, type of security needed to be issued (GDR in this case), stages of conversion, price of equity, shares on conversion, rate of interest, redemption date etc.

- c. Finalization of Issue Structure:** On completion of the formalities of issue structure in consultation with the lead manager, the company should obtain the final approval from the government. For this purpose, the company should furnish the information about the entities involved in the GDR issue and the following parameters to the government.

i. Lead Manager	xii. Indian Custodian
ii. Co-Lead Manager	xiii. Issue structure and denomination of underlying shares represented by the GDRs
iii. Currency	xiv. Issue amount
iv. Issue Price (approximate range in case of GDR)	xv. Green Shoe option
v. Form and Denomination	xvi. Warrants attached, if any
vi. Negative Pledge provisions	xvii. Listing modalities
vii. Taxation	xviii. Selling commission
viii. Commissions	xix. Underwriting commission
ix. Reimbursable expenses	xx. Legal expenses, printing expenses, depository fees, and other out-of-pocket expenses
x. Governing Laws	xxi. Taxation procedure
xi. Overseas Depository Institution	

The government, after considering all the above information will give a final approval for the issue – if satisfied.

Bookrunners of International Bonds

Pos	Manager or Group	Amt US\$ (bn)	Iss.	% Share
1	Salomon Smith Barney International	172.75	490	10.27
2	Deutsche Bank	144.05	576	8.56
3	Morgan Stanley Dean Witter	137.83	593	8.19
4	JP Morgan	131.76	427	7.83
5	Merrill Lynch & Co	126.97	431	7.55
6	Credit Suisse First Boston	119.92	512	7.13
7	Lehman Brothers	104.05	413	6.19
8	Goldman Sachs & Co	89.39	299	5.31
9	UBS Warburg	81.39	333	4.84
10	Barclays Capital	69.73	311	4.09
11	ABN AMRO	61.57	314	3.66
12	BNP Paribas	51.67	289	3.07
13	HSBC	44.55	471	2.65
14	Bresdner Kleinwort Wasserstein	44.04	261	2.62
15	Bank of America	21.78	58	1.29
16	Societe Generale	19.54	89	1.16
17	Bear Stens & Co	18.37	53	1.09
18	Hypovereinsbank – Bayerische Hypo-und Vereinsbank	16.98	122	1.01
19	Credit Agricole Indosuez	16.93	103	1.01
20	Commerzbank Securities	16.93	141	1.01
	Total	1,682.26	6542	100.00

The Documentation

Documentation for Euro equities is a complex and elaborate process in the procedure of GDR launch. A typical Euro-issue consists of the following main documents:

- a. Prospectus
- b. Depository agreement
- c. Custodian agreement
- d. Subscription agreement
- e. Paying and conversion agency agreement
- f. Trust deed
- g. Underwriting agreement and
- h. Listing agreement.

A brief discussion on the contents and the relevance of each of these documents is given below:

- a. **Prospectus:** As in domestic equity market, the prospectus is a major document containing all the relevant information concerning the issues – like the investment considerations, terms and conditions, use of proceeds, capitalization details, share information, industry review and overall description of the issuing company. As a marketing strategy, companies generally issue a preliminary prospectus which is referred to as pathfinder which will judge the potential demand for the equity that is being launched in the markets.

The aspects that need to be covered in the main prospectus may be grouped as follows

- i. **Financial Matters:** Apart from the financials of the company, the prospectus should include a statement setting out important accounting policies of the company and a summary of significant differences between Indian GAAP and the UK GAAP and the US GAAP (in case of an ADR).
- ii. **Non- financial Matters:** This may cover all aspects of management with the information relating to their background, names of nominee directors along with the names of the financial institutions which they represent and the names of senior management team. All other non-financial aspects that influence the working of the company need to be mentioned in the prospectus.
- iii. **Issue Particulars:** The issue size, the ruling domestic price, the number of underlying shares for each GDR and other information relevant for the issue as such, may be mentioned here.
- iv. **Other Information:** Statement regarding application to a foreign stock exchange for listing the securities and issuing of global certificates to a specified nominee as operator of the Euro-Clear (international clearing house in Euro-securities) system like Cedel (one of the major clearing houses in Eurobond market clearing, handling and storing the securities).

Option provided to the lead manager to cover over-allotments, exercisable on or before the business day prior to the closing date of subscribe for additional securities in the aggregate up to a specified limit.

- b. **Depository Agreement:** This is the agreement between the issuing company and the overseas depository providing a set of rules for withdrawal of deposits and for their conversion into shares. Voting rights of a depository are also define. Usually, GDRs or Euro convertible bonds are admitted to the clearing system, and settlements are made only by book entries. The agreement lays down the procedure for the information transmission to be passed onto the GDR holders.

- c. Underwriting Agreement: As in domestic equity market, underwriters play the role of 'assurers' for picking the GDRs at a predetermined price depending on the market response. The agreement is for this purpose, between the company (guided by its lead manager) and the underwriter.
- d. Subscription Agreement: The lead manager and the syndicated members form a part of the investors who subscribe to GDRs or Euro convertible bonds as per this agreement. There is no binding, however, on the secondary market transaction on these entities i.e. market making facility.
- e. Custodian Agreement: It is an agreement between the depository and the custodian. In this agreement the depository and the custodian determine the process of conversion of underlying shares into depository receipts and vice versa. For the process of conversion of the GDRs into shares, (popularly termed as RE-materialization) shares have to be released by the Custodian.
- f. Trust Deed and Paying and Conversion Agreement: While the trust deed is a standard document which provides for duties and responsibilities of trustees, the paying and conversion agreement enables the paying and conversion agency which performs a typical banking function by undertaking to service the bonds until the conversion, and arranging for conversion of bonds into GDRs or shares, as necessary.
- g. Listing Agreement: As far as the listing is concerned, most of the companies which issue a GDR prefer Luxembourg Stock Exchange as the listing requirements in this exchange are by far, the most simplest. The New York Stock Exchange (NYSE) and the Tokyo Stock Exchange (TSE) have the most stringent listing requirements. London Stock Exchange and the Singapore Stock Exchange fit in the middle with relatively less listing requirements than the NYSE and TSE.

The listing agents have the onus of fulfilling listing requirements of a chosen stock exchange. The requirements of London Stock Exchange are provided in the 48-hour documents. The 48-hour documents are the final documents that have to be lodged at the exchange not later than mid-day, at least two business days prior to the consideration of the application for admission to listing.

These documents, among other things should include the following:

- An application for admission to listing.
- Declaration of compliance in the appropriate form issued by the exchange.
- Three copies of the listing particulars / equivalent offering document relating to the issue. The contents of these documents should meet the relevant requirements.

- A copy of any shareholders' resolution that is relevant to the issue of such securities.
- A copy of the board resolution authorizing the issue, the application for listing and the publication of the relevant documents.
- In case of a new company, a copy of the incorporation certificate, memorandum of certificate and articles of association.

The Launch

Two of the major approaches for launching of a Euro-Issue are Euro-Equity Syndication and Segmented Syndication. Euro-Equity syndication attempts to group together the placement strengths of the intermediaries, without any formal regional allocations. Segmented syndication, on the other hand, seeks to form a geographically targeted syndicated structure, so as to achieve broader distribution of paper by approaching both institutional and retail investors. As compared to Euro syndication, segmented syndication can be expected to achieve orderly and coordinated placement by restricting the choice of syndicate members with definite strengths in specific markets.

Marketing

It is not only the Indian issues which thrive on suave marketing, but also the GDR and other International bond offerings. A judicious mix of financials and marketing would help in raising the investors interest in the issue. Most of the marketing activities are handled by the lead manager in consonance with the advertising agencies. A back-up material consisting of preliminary offering circular, recent annual report, interim financial statements, copies of newspaper articles about the business of the company and a review of the structure and performance of the Indian stock market, among other things is prepared.

Road shows form a pre-dominant facet of the launch of any GDR. They are a series of face-to-face presentations with fund managers and analysts and is a vital part of marketing process. Road shows, which involve much more than must inform about the company are getting increasing attention from the investors and the fund managers. Road shows for Euro equities acquire considerable greater degree of risk than under any other financial instrument. Road Shows are backed by the information of the financials and operations and a view regarding the future profitability and growth prospects. This gives an opportunity to the investors (generally, fund managers) to interact with the senior management of the issuing company and understand the activities of the issuer company which may eventually lead to the investment in the company. These are normally conducted at the financial centers of the globe like London, New York, Boston, Los Angeles, Paris, Edinburgh, Geneva, Hong Kong, etc.

The back-up material prepared will support presentations made by the company's senior personnel inviting the fund managers to invest in the company. The price that is preferred for a particular number of shares is noted by the book-runner at each of such presentations and the eventual price that is most likely to find favor with the fund manager is finalized. This will go a long way in making the issue to be accepted.

Pricing and Closing

This forms the most vital part of the whole process of a GDR issue. The pricing is key to the overall performance of a GDR after the same has been listed. The price is determined after the underwriters response has been considered and an inference of the response may be drawn.

The final price is determined after the Book Runner closes the books after the completion of the Road Shows. The book-runner keeps the books open for 1-2 weeks, for the potential investors to start placing their orders/bids with details of price and quantity. After analyzing all the bids at the end of book-building period, lead managers, in consultation with the issuer, will fix a particular price for the issue which will be communicated back to the bidders/investors and a fresh demand figure is arrived at. If there is excess demand, the company can go in for 'green shoe option' where it can issue additional GDRs in excess of target amount.

A tombstone advertisement will be issued in the financial press to publicize syndicated loans and other funding deals. Following this, the GDRs will get listed in the notified stock exchange signaling the consummation of the process of the issue of stock exchange. The time period that is generally needed for typical GDR issue is given in the following table. The table is arranged sequentially so as to convey information on the step-by-step process that is followed.

Indicative Time Table

Stage	Administrative	Time in weeks
Initial Decision	i. Meeting between issuer and lead manager and planning of an issue ii. Issue structure finalized with due regard to domestic regulatory environment iii. Draft documentation iv. Due diligences process v. Board meeting proceeded by shareholder's approval vi. Fixing parties to issue (including depository/custodian)	1 and 2

Approvals and drafts finalization	i. Official approvals –steps initiated ii. Comfort and consent letters finalized with auditors iii. Legal opinion formats drafted and finalized iv. Approvals obtained	3 and 4
Pre-launch formalities	i. Road show preparations and presentations ii. Pathfinder prospectus finalized iii. Listing preparations in final stages	7 and 8
Launch of issues	i. Roadshows organized ii. Documentation circulated among syndicate iii. Investors contacted	
Pricing and Closing	i. Final terms fixed ii. Allocation of securities to investors iii. Final prospectus to be kept ready iv. Final listing documents lodged with stock exchange v. Subscription agreement signed vi. Delivery of global certificate vii. Closing documents signed viii. Payment to the issuer ix. Tombstone advertisement	

Source: Global Capital Markets: Shopping for finance; PR Joshi, Tata Mc-Graw, 1996 ed.

Costs

The cost incurred by the company is proportional to the issue size. The lead manager, justifiably, takes the lion's share in the issue expenses of the GDR. With the increased acceptance of marketing as a vital tool for the success of the issue, the cost that is incurred on marketing is fast increasing. The following table gives an indication on the total expenses incurred by a GDR issue.

GDR Issue: Fees and Expenses

Item	Pre cent of issue amount
Underwriting Fee	0.60 – 1.00
Management Fee	0.60 – 1.00
Selling Commission	1.80 – 3.00
Total Fees	3.00 – 5.00

Source: Global Capital Markets, P.R. Joshi.

Other expenses include lead manager's expenses, printing costs, accounting fees, listing fees, road show expenses, etc.

There has, however, been a considerable fall in the quality of the GDR issues made by the Indian companies. The sole reason why some of the Indian companies came out with a Euro-issue was their eagerness to flaunt the GDR issue as a symbol of being well known in the international markets. Some of the companies coming out with GDRs could not explain the core business they are in and also whether they have judiciously utilized the investment made by the GDR holders.

The Present Scenario
Indian GDR Issues as on 05.11.98

Company Name	Issue	Issue price	Issue size (₹ Mn)	Share Per GDR	GDR (no.Mn)
	Month & Year				
Arvind Mills	Jan-94	9.78	125	1	12.78
Ashok Leyland	Mar-95	12.79	137.5	3	10.77
BSES	Mar-96	14.4	125	3	8.68
Bajaj Auto	Oct-94	25.3	110	1	4.43
Bombay Dyeing	Nov-93	9.2	50	1	5.43
CESC	Apr-94	10.67	125	1	11.72
Century Textiles	Sept-94	254	100	1	0.39
Core Healthcare	Jul-94	12.6	70	1	5.56
Crompton Greaves	Jul-96	7.86	50	1	6.61
D C C Ltd.	May-94	13.55	25	5	1.85
Dr. Reddy's Lab	Jul-94	11.16	48	1	4.3
EI Hotels	Oct-94	9.3	40	1	4.3
E I D Parry India	Jul-94	8.39	40	1	4.77
Finolex	Jul-94	16.6	55	1	3.31
Flex Industries	Nov-95	8.05	30	2	3.73
Gujarat Ambuja	Dec-93	5.95	80	1	13.45
G E Shipping	Feb-94	15.94	100	5	6.27
Guj. Narmada Valley Fert.	Oct-94	12.75	62	5	4.86
Garden Silk Mills	Mar-94	26.28	50	5	1.9
Grasim	May-94	20.5	100	1	4.88
Himachal Futuristic Comm.	Aug-95	9.3	50	4	5.38
Hindustan Development Corp.	Sep-94	2.05	76	1	37.07
Hindalco	Jul-94	16	100	1	6.25

ICICI	Aug-96	11.5	230	5	20
Indian Aluminium Co.	Feb-94	6.76	60	1	8.88
India Cements	Oct-94	4.22	90	1	10.66
Indian Hotels	May-95	16.6	86.2	1	5.19
Indian Rayon	Feb-94	22.51	125	1	5.55
Indo Gulf Fertilisers & Chem.	Feb-94	4.51	100	1	22.17
Indo Rama Synthetics India	Mar-96	11.37	50	10	4.4
IPCL	Dc-94	13.87	85	3	6.13
I T C Ltd.	Oct-93	7.65	69	1	9.02
J.K. Corp.	Oct-94	8	55	1	6.88
Jain Irrigation Systems	Feb-94	11.12	30	1	2.7
J C T Ltd.	Aug-94	16.96	45	10	2.65
Kesoram Industries	Aug-96	1.6	30	1	18.75
L&T	Feb-96	15.35	150	2	9.77
Mahindra & Mahindra	Nov-93	4.48	75	1	16.73
NEPC-Micon	Nov-94	3.18	45	1	14.15
Oriental Hotels	Dec-94	12.75	30	1	2.35
Ranbaxy	Jul-94	19.37	100	1	5.16
Raymond	Nov-94	10.61	60	2	5.66
Reliance	Feb-94	24.1	300	2	12.45
SBI	Oct-96	14.15	369.98	2	26.15
S.I. Viscose	Aug-94	6.37	45	1	7.06
Shriram Industrial Enterp	Oct-94	14.64	40	3	2.73
SAIL	Mar-96	12.97	125	15	9.64
Sanghi Ployesters	Aug-94	9.56	50	5	5.23
SPIC	Sep-93	11.15	65	5	5.83
Sterlite Industries India	Dec-93	17.88	100	1	5.59
Tata Power Co.	Feb-94	710	65	10	0.09
Telco	Aug-96	14.25	200	1	14.04
Tube Investments Of India	May-94	6.57	45	1	6.83
United Phosphorus	Feb-94	20.5	55	1	5.36
Usha Beltron	Oct-94	10.7	35	1	3.27
VSNL	Mar-97	13.93	448	0.5	32.16
Videocon	Jan-94	8.1	90	1	11.11
Wockhardt Ltd.	Feb-94	14.35	75	1	5.23
MTNL	Dec-97	11.96	358.8	2	30

* ADR – listed at Nasdaq.

American Depositary Receipts

Until 1990, companies had to issue separate receipts in the US (ADRs) and in Europe (IDRs) to access both the markets. The weakness was that there was no cross-border trading possible as ADRs had to be traded, settled and cleared through the Depository Trust Company (DTC) in the US, while the IDRs could be Rule 144A and Regulations of the SEC of the US allowed non-US companies to raise capital in the US market without having to register the securities with the SEC or changing the financial statements to reflect the US accounting principles. Rule 144A is designed to facilitate certain investment bodies called Qualified Institutional Buyers (QIBs) to invest in overseas (non-US) companies without those companies needing to go through the SEC registration process.

The Instrument

ADR is a dollar denominated negotiable certificate, it represents non-US company's publicly traded equity. It was devised in the late 1920s, to help Americans invest in overseas securities and to assist non-US companies wishing to have their stock traded in the American Markets. ADRs are divided into 3 levels based on the regulation and privilege of each company's issue.

- i. ADR Level-I: It is often the first step for an issuer into the US public equity market. Issuer can enlarge the market for existing shares and thus diversify the investor base. In this instrument only minimum disclosure is required to the SEC and the issuer need not comply with the US GAAP (Generally, Accepted Accounting Principles) This type of instrument is traded in the US OTC market. The issuer is not allowed to raise fresh capital or list on any one of the national stock exchanges.
- ii. ADR Level-II: Through this level of ADR the company can enlarge the investor base for existing shares to a greater extent. However, significant disclosures have to be made to the SEC. The company is allowed to list in the American Stock Exchange (AMEX) or New York Stock Exchange (NYSE) which implies that the company must meet the listing requirements of the particular exchange.
- iii. ADR Level-III: This level of ADR is used for raising fresh capital through public offering in the US Capital Markets. The company has to be registered with the SEC and comply with the listing requirements of AMEX/NYSE while following the US-GAAP.

The reason for this may be attributed to the stiff disclosure requirements and accounting standards as per the US GAAP. The following table gives an indication on the difference between the US and Indian GAAP.

Summary of Significant differences between the Indian Accounting Standards and the US GAAP

India	USA
Financial Statements <ul style="list-style-type: none"> ➤ Prepared in accordance with the requirements of Schedule VI of the Companies Act, 1956 	<ul style="list-style-type: none"> ➤ No Specific format is necessary as long as they comply with the disclosure requirements of the US Accounting Standards.
Consolidation <ul style="list-style-type: none"> ➤ Not required 	<ul style="list-style-type: none"> ➤ Consolidation of group company accounts is mandatory.
Earnings Per Share Data <ul style="list-style-type: none"> ➤ No disclosure requirements except those under Schedule VI, Part IV to the Companies Act, 1956 	<ul style="list-style-type: none"> ➤ Disclosure is mandatory. This includes the EPS calculated using the weighted average shares outstanding (simple and complex capital structures) method and fully diluted EPS (considering the effect of warrants or options outstanding).
Taxation <ul style="list-style-type: none"> ➤ Normally provided for, based on the taxes payable method. 	<ul style="list-style-type: none"> ➤ Deferred tax assets or liabilities should be booked using the asset-liability approach.
Fixed Assets and Depreciation <ul style="list-style-type: none"> ➤ Revaluation of assets permitted. Depreciation is based (usually) on rates set out in Schedule XIV to the Companies Act, 1956. 	<ul style="list-style-type: none"> ➤ Revaluation of assets not permitted. Depreciation is over the useful economic lives of assets. Depreciation and profit/loss on sale is based on historic cost.
Investment in Own Shares <ul style="list-style-type: none"> ➤ Expressly prohibited 	<ul style="list-style-type: none"> ➤ Permitted and is shown as reduction from shareholders equity
R&D <ul style="list-style-type: none"> ➤ Costs can be capitalized subject to the conditions of AS-8, R&D, issued by the ICAI. 	<ul style="list-style-type: none"> ➤ Costs are expenses as incurred.

India	USA
<p>Related Party Transactions</p> <ul style="list-style-type: none"> ➤ No specific disclosures required. Auditors have a duty to report certain transactions entered into by related parties as defined under the Companies Act, 1956. <p>Goodwill</p> <ul style="list-style-type: none"> ➤ No standard except for brief references in AS-10, fixed assets and AS-14, Accounting for amalgamations. Goodwill arising from amalgamations can be written-off over 5 years. <p>Pre-operative Expenses</p> <ul style="list-style-type: none"> ➤ Allowed to be deferred and written-off over a period of 3-5 years or 10 years. <p>Assets and Liabilities</p> <ul style="list-style-type: none"> ➤ No mandatory disclosure of current and long-term components. <p>Foreign Currency Transactions</p> <ul style="list-style-type: none"> ➤ Exchange fluctuations on liabilities incurred for fixed assets can be capitalized. <p>Segmental Reporting</p> <ul style="list-style-type: none"> ➤ Requirements exist for disclosure of quantitative particulars only as prescribed in Schedule VI to the Companies Act, 1956. 	<ul style="list-style-type: none"> ➤ Disclosures are stringent and require descriptions of nature of relationships and control, transactions, amounts involved and amounts due. <ul style="list-style-type: none"> ➤ Treated as any other intangible asset and is capitalized and amortized. The maximum carry forward period is 40 years. <ul style="list-style-type: none"> ➤ Concept does not exist. <ul style="list-style-type: none"> ➤ Mandatory disclosures about current and long-term components separately. Current component normally refers to one year of the period of the operating cycle. <ul style="list-style-type: none"> ➤ Exchange gain/loss is taken to the income statement. The concept of capitalization of exchange fluctuations arising from foreign currency liabilities incurred for acquiring fixed assets does not exist. <ul style="list-style-type: none"> ➤ Mandatory for SEC-registered companies to report revenues and net income by geographic regions and products/business lines; report sales to outstanding receivables from unaffiliated customers; report identifiable assets by geographical regions and products/business lines.

<p>Impairment Evaluation</p> <ul style="list-style-type: none"> ➤ No Standards. <p>Fair Value Disclosures</p> <ul style="list-style-type: none"> ➤ Schedule VI (Directors to state expressly if, in their opinion, the current assets are not expected to realized their cost if they are sold) Requirements exist for disclosure of quantitative particulars only as prescribed in Schedule VI 	<ul style="list-style-type: none"> ➤ Mandatory for all assets. Future undiscounted cash flows from use and disposal of the assets are first compared to its carrying value to determine the impairment situation. Impairment loss is then recognized on the basis of the fair value of the asset. Disclosure of the facts and circumstances that led to impairment is mandatory. ➤ Mandatory fair values are ascertained based on certain specific principles for items, such as loans, current assets, current liabilities etc.
---	--

Source: KPMG Peat Marwick.

Intermediaries that are involved in an ADR issue perform the same work as in the case of a GDR issue. Additionally, the intermediaries involved will liaison with the QIBs for investing in ADRs. Some of the well known intermediaries for ADRs/GDRs are, Merrill Lynch International Ltd., Goldman Sachs & Co. James Capel & Co., Lehman International, Robert Fleing Inc, Jardine Fleming, CS First Boston, JP Morgan, Etc.

Regulatory Framework

At the outset, it should be clear that the regulatory framework for the ADRs is provided by Securities and Exchange Commission which operates through two main statutes, the Securities Act of 1933, and the Securities Exchange Act of 1934. The Securities Exchange Act provides for the disclosure and its periodic updating. As far as Indian regulatory procedures are concerned, the Ministry of Finance is yet to come out with comprehensive set of guidelines.

Rule 415 of the Securities Exchange Act of 1934, refers to Shelf Registration and applies to the issue of ADRs. Under this rule, select foreign companies are offered the facility to register the necessary documents before the actual issuance of securities. For this, issuers are required to prepare the prospectus in two parts: Basic and supplementary. While the basic prospectus has to be filed at the time of shelf registration, the supplementary prospectus has to be filed at the time of the actual issuance of the securities. Wrapping

around the basic prospectus, the supplementary prospectus records the recent developments in addition to filing a detailed financial condition statement. Underwriting arrangements, the certifications of auditors and legal counsel have to be procured for the actual issue of securities. New shelf filings, are required if the issuer seeks to raise larger amounts than originally 'Indicated. Also, the issuer has the option to go in for de novo registration.

Shelf registration has been found to be useful to issuers as it reduces the incidence of fees considerably. More importantly, shelf registration affords the issuers opportunities for quickly accessing the markets as "the offering process is substantially simplified.

Potential

Though there has been an increase in the limit of FII investment in an Indian company to 10% with the increase in the overall investment limit to 30%, FIIs eager to invest in certain blue chip companies are finding the GDR/JADR route as convenient to invest in such companies. The first company to have received the approval to issue ADR is BPL Cellular Holdings. The approval is given on case-to-case basis by the Ministry of Finance.

The Instruments

All Eurobonds, through their features can appeal to any class of issuer or investor. The characteristics which make them unique and flexible are,

- a. No withholding of taxes of any kind on interests payments.
- b. A fundamental requirement is that the bonds are in bearer form with interest coupon attached,
- c. The bonds are listed on one or more stock exchanges but issues are generally traded in the over-the-counter market.

Typically, a Eurobond is issued outside the country of the currency in which it is denominated. It is like any other Euro instrument and through international syndication and underwriting, the paper is sold without any limit of geographical boundaries. Eurobonds, are generally listed on world's stock exchanges, usually on the Luxembourg Stock Exchange.

There were various innovations in the structuring of bond issues during the eighties. These structures used swap technique to switch from one currency to another, or to acquire multi-currency positions. Another variation was in the form of equity-related bonds as

convertibles or bonds with equity warrants. Zero-coupon bonds were issued capitalizing on the tax treatment.

Bond issue structures can be classified into two broad categories: Fixed rate bonds (also referred as straights) and

Floating-Rate Notes (FRNs).

Top 20 Bookrunners Jan. 1 to Dec. 31 2001

Pos.	Bank Name	Amt US\$ (m)	No.	% Share
1.	Barclays	46,079.20	227	8.94
2.	Citigroup Inc	38,404.22	184	7.45
3.	Deutsche Bank AG.	31,660.44	156	6.14
4.	JP Morgan	28,078.71	119	5.44
5.	Royal Bank of Scotland	27,929.72	192	5.42
6.	HSBC	22,644.77	130	4.39
7.	BNP Paribas	22,275.19	140	4.32
8.	Dresdner Kleinwort Wasserstein	19,345.40	110	3.75
9.	ABN-AMRO Bank NV	15,854.36	98	3.07
10.	West LB	15,105.90	109	2.93
Total		515,694.38	1,116	100.00

Source: Dealogic Loanware.

- a. Fixed Rate Bonds / Straight Debt Bonds: Straight Debt Bonds are fixed interest bearing securities which are redeemable at face value. These unsecured bonds which are floated in domestic markets or international markets, are denominated in the respective currency with interest rates fixed on the basis of a certain formula applicable in a given market. The bonds issued in the Euro-market referred to as Euro-bonds, have interest rates fixed with reference to the creditworthiness of the issuer. The yields on these instruments depend on short-term interest rates. LIB OR is the most commonly used benchmark for measuring the yields on these bonds. The interest rate on dollar denominated bonds are set at a margin over the US treasury yields. The redemption of straights is done by bullet payment, where the repayment of debt will be in one lump sum at the end of the maturity period, and annual servicing. Further, there is no tax deduction at source on the income of these bonds. These bonds are listed either on London, Luxembourg or Singapore stock exchanges.

In addition to the fixed rate bonds, there are the zero coupon bonds which do not pay the investors any interest and therefore, are not taxable on a year-to-year basis. Instead, the differential between maturity value and the issue price could be treated as capital gains and taxed at a lower rate accordingly. The first zero-coupon bond was floated in Euromarkets in 1981 for Pepsico which was made at a price of 67.5% for a maturity of three years, with repayment at 100% on the maturity date. This has provided a yield of 14.14% to the investors.

- b. Floating Rate Notes (FRNs): FRNs can be described as a bond issue with a maturity period varying from 5-7 years having varying coupon rates - either pegged to another security or re-fixed at periodic intervals. Conventionally, the paper is referred to as notes and not as bonds. The spreads or margin on these notes will be above 6 months LIB OR for Eurodollar deposits.

The bulk of the issues in the seventies were denominated in US dollars. Later, the concept was applied to other currencies, like Pound Sterling, Deutsche Mark, European currency units and others. Extensive usage of these FRNs is done by both American and Non-American Banks who would borrow to obtain dollar without exhausting credit lines with other banks. Thus, FRNs represent an additional way to raise capital for them. To cater to the varying shifts in the investor preferences and borrowers' financial requirements, variations have been introduced in the basic FRN concept. FRNs have thus been restructured into the following types:

- Flip-Flop FRNs: The investors have the option to convert the paper into flat interest paying instrument at the end of a particular period. The investor could change his mind and convert the note into perpetual note once again at maturity. World Bank had come out with a FRNs issue with perpetual life and having a spread of 50 basis points over the US treasury rate. Every 6 months the investors had the option of converting the FRN into 3-month note with a flat 3-month yield. The investor could also revert his decision and change it to a perpetual note.
- Mismatch FRNs: These notes have semi-annual interest payments though the actual rate is fixed monthly. This enables investors to benefit from arbitrage arising on account of differentials in interest rates for different maturities. They are also known as rolling rate FRNs.
- Mini-Max FRNs: These notes include both minimum and maximum coupons. The investors will earn a minimum rate as well as a maximum rate on these notes. Depending on the differential between these rates the spreads are earned on these notes. These notes are also known as collared FRNs.

- Capped FRNs: An interest rate cap is given over which the borrower is not required to service the notes, even if Libor goes above that level. Typically, the investors have margins higher than that is normally applicable.
- VRN-Structured FRNs: These represent long-dated paper with variable interest spreads, with margins over Libor. The margins rise for longer maturities.
- Perpetual FRNs: These notes which are irredeemable are also known as perpetual floaters or undated issues

Procedure

Coming out with a bond issue is the most complex and elaborate of the procedures of all the funding programs. Bonds need to be carefully designed and executed, especially as these are placed with international clientele.

The success of the bond issue depends not so much on costs as on the position and capabilities of the bidders for launching the issue. The cheapest bid therefore, may not be the best bid because the track record and current market standing of the bidders would have to be carefully weighed while choosing the lead manager.

Therefore, the mandate of the bond issue has to be awarded after proper deliberation on the modalities involved. The bids should include all necessary information relating to the placement strategy, market support operations, listing details, paying agency arrangements, delivery and handling of notes and trustee arrangements.

After the receipt of a mandate, the mandated bank (referred to as lead manager or arrangers) has to initiate steps for the formation of a syndicate group to complete bond issue formalities. Since, it is the key member of the syndicate group, it is responsible for a series of tasks starting with the launching of the issue till its closure.

- a. Syndication: In particular, the Arranger's (lead managers) duties commence with a credit appraisal of the issuer on the basis of a financial and operational data. The lead manager has to organize detailed negotiations with the issuer for the purposes of settling various terms and conditions. A time table too has to be drawn for going through various stages of bond issue floatation.

It is also the lead managers' responsibility for drafting documents with the help of legal counsels. Bond issue documentation comprises, besides prospectus, subscription agreement, underwriting agreement, selling agency agreement, paying agency agreement,

listing agreement and the trust deed. These agreements have the same kind of properties as in the case of a GDR issue mentioned earlier in the chapter.

Traditionally, international markets have been following open priced syndication procedures. Under this, the lead manager keeps pricing open until the subscription agreement is actually signed. The lead manager assesses not only the market mood but the precise level at which an issue would be supported and subscriptions can be procured in adequate measure.

International markets have also come up with an innovative method of syndication referred to as bought-outdeal process. Under this system, pre priced issue (pre-printed by the lead manager and co-management group) are presented to the market and the issuer knows the exact issue 'price and coupon rate before the former is launched in the market.

- b. Launching, Offering and Closing: Placement of new bond issues in markets follows a standard route. On receipt of various approvals and authorizations by the issuer, news concerning bond issue floatation is carried through the appropriate media. With the announcement of a bond issue launch, invitation telexes are sent to underwriters and to selling group members inviting their support. The main function' of underwriting is to take up the issue on execution of the underwriting agreement. It is CUSIO~,; 0:- them to sell the issue subsequently. underwriting is done b:. wee groups the managers, major underwriting and minor underwriting. While the me commitments on the first two categories of underwriting will be an average of 1 percent of the issue, the last category of underwriting will have a commitment of 0.5 percent of the issue.

Compared to underwriting, selling is organized in a different manner. While underwriters take title to the issue so underwritten, selling group members do not take title as they undertake to sell the issue if support is obtained. The selling group, therefore, do not carry any risk - in a technical sense compared to the underwriting group.

The next stage in bond issue floatation is the offering. During this phase, terms consisting of coupon rate and issue price are finalized. Pricing is determined 011 the basis of the underwriters' response, and is undertaken one day before the offering. The lead managers, jointly with co-managers, have to assess the mood and response of the market and weigh the response of the underwriters accordingly.

The two-day period prior to the offer is, therefore, very crucial and hectic discussions and negotiations are undertaken in order to arrive at a correct bond issue pricing.

During the offering period, the issuer and the lead manager organize a sales campaign. Various markets are tapped by means of road shows. These are in fact investor meetings where the offering of a bond is formally presented to investors. Road shows are organized at various centers and are important from the point of view of placing the issue. The offering phase is concluded with the actual sale of bonds, signing of necessary agreements and publicity regarding the transaction coming to an end.

Given below is the time schedule for the various activities in a Eurodollar bond issue. For frequent issuers of bonds, the time schedule is shorter as the familiarity of the parties with the process ensures expeditious completion of various stages.

Time Schedule for a Traditional Eurodollar Bond Issue

Week of X - 14	<p>Initial organizational meeting with the company to discuss:</p> <ol style="list-style-type: none"> Basic terms and conditions Time schedule and allocation of responsibilities Marketing and syndication strategy (possible syndicate tour) General form and content of offering circular, subscription and fiscal agency/trust deed and pa) in agency agreements Selection of trustee or fiscal agent and paying agents <p>Work begins on:</p> <p>Offering circular (due diligence investigation)</p> <ol style="list-style-type: none"> Agreement among managers, subscription agreement and underwriting agreement Syndicate telexes and press release List of syndicate members Listing application Sales material (optional)
Week of X -7	<p>Final authorizations and board approvals obtained</p> <ol style="list-style-type: none"> Working party meetings as necessary to prepare documents Drafts of documents sent to printers Borrower and lead manager discuss pre-announcement terms and commission ideas Preparation of statistical comparison and other sales materials (optional)

X-DAY (Announcement day)	<p>Announcement of issue released to press and stock exchanges Lead manager sends:</p> <ol style="list-style-type: none"> Invitation telex to co-managers and underwriters Invitation telex to selling group members Sales telex to foreign branch offices (optional) <p>Listing application made:</p> <p>Documents and letters sent to the printer for final printing Co-managers and underwriters required to telex or cable acceptance of underwriting commitment to lead manager' Underwriters/Selling Group Members are mailed:.</p> <ol style="list-style-type: none"> Preliminary offering circular Execution copies of underwriting/selling group agreement Syndicate tour organized and carried out (optional)
X+ 1	<p>Indications of syndicate and investor interest are recorded in the book</p> <p>Pre-allotments are made in the amount of not less than 50% of underwriting commitment</p> <p>. Documents sent to listing agent</p> <p>Progress of note printer is monitored</p> <p>Advertising agency contacted for preparation of tombstone advertisement and list of likely newspapers and magazines Preparation of final press release</p> <p>Preparation of pricing information and other arrangements for pricing day and signing ceremony</p>
X+3	Allotments determined internally by lead manager and telexed to syndicate
X + 1 through X + 3 (Offering period)	Deadline for receipt by co-managers the draft agreements requiring signature
	<p>Deadline for receipt by co-managers the draft of prospectus (or in exceptional circumstances, prospectus to be made available for viewing at the office of the lead manager)</p> <p>Final pricing meeting with borrowers (if an open-priced issue) All syndicate agreements to be signed</p> <p>Signatures on the subscription agreement</p> <p>Release of final press announcement</p>

	<p>Final terms released to listing agent, document and bond printers and advertising agency for tombstone</p> <p>Printing of final prospectus (next day mailing)</p> <p>New issue supported by a syndicate bid until distribution judged complete. Syndicate notified when trading restrictions are lifted Printing of dimities bonds</p> <p>Preparation of final copy of tombstone advertisement</p> <p>Trust deed or fiscal agency agreement signed</p> <p>Listing application checked to assure listing on or before closing Closing memorandum reviewed setting out arrangements for closing Delivery and payment instruction forms' received from underwriters and selling group members</p> <p>Co-managers, underwriters and selling group members make payment for securities acquired through accounts with Euro clear or Cedel</p> <p>Pre-closing meeting held to determine receipt of all necessary authorizations, legal opinions and cold comfort letter</p> <p>Packaging and delivery arrangements for bonds are checked Closing documents delivered</p> <p>Payment for the delivery of securities</p> <p>Signature of paying agency agreement</p> <p>Publication of tombstone advertisement</p> <p>Preparation of bible containing offering documents and closing papers</p> <p>Syndicate stabilization can also continue up to 30 days after closing</p>
--	---

Source: Global Capital Markets. P R Joshi.

Listing

Bond issue are listed at one or more stock exchanges depending upon the type of bond issue, the currency of denomination and the desire of the issuer to seek a quotation at various centers. Generally the Eurobonds denominated in dollars are listed at London/ Luxembourg Stock Exchanges, the bonds denominated ill French Franc at Luxembourg Stock Exchange and those bonds denominated in DM at German Stock Exchanges. Bonds issued in domestic markets like Japan, Switzerland or Germany have to be listed as per the requirements. Bond issue procedures are finally concluded with the tombstone advertisement and bible compilation.

Clearing Arrangements

With a view to facilitating both new issue and secondary market operations, clearing house arrangements have been made and systems laid down for handling transactions. Eurobonds are usually handed over to either the Euro clear system (Brussels) or Cedel (Luxembourg). The two systems have been linked by what is known as an electric bridge.

Euroclear and Cedel follow two distinct practices, fungible and non-fungible accounts, for concluding transactions between parties. While the fungible accounts system is most popular in Euromarkets, the non-fungible system is useful for control purposes. In a fungible account system, details regarding the identity of the owners and location of individual securities are not provided. Euroclear system handles trades on fungible basis, whereas Cedel permits both procedures.

The two clearing systems have been providing various other facilities, apart from settlement of secondary market trading transactions. For instance, finance is provided by them for facilitating market-making operations.

Self Assessment Questions

1. What are the different types of International Financial market instruments?
2. What is international bonds and what are its different types?
3. What are the different types of instruments available in the International Financial Market?
4. Who are the players in the International Financial Market?

UNIT - IV

International Money Market Instruments and Institutions

Learning Objectives

Having gone through this unit, one may be able to understand.

- The concept and mechanism of GDR.
- The significance of ADRs.
- The nature of global debt market and various global debt instruments
- The special features of euro market instruments
- The function of international financial institutions Viz., IMF, IBRD, Development banks.

There are different types of equity investment instruments in international market. International equity offering generally takes any one of the two forms, viz,

- i) Dual syndicate equity offering, where the equity offering is split into overseas and domestic trenches and each is handled by separate lead manager and
- ii) Euro equity offering where one trench is placed overseas and managed by one lead manager. GDRs, ADR AND IDRS (Global, American and international depository Receipts) are the prime modes of Euro-equity offerings.

Global Depository Receipt (GDR)

A Global Depository Receipt (GDR) is a dollar denominated instrument traded on a stock exchange in Europe or the US or both. It represents a certain number of underlying equity shares.

The shares are issued by the company to an intermediary called depository in whose name the shares are registered. It is the depository which subsequently issues the GDRs. The physical possession of the equity shares is with another intermediary called the custodian

who is an agent of the depository. Thus while a GDR represents the issuing company's shares, it has a distinct identity and in fact does not figure in the books of issuer.

The concept of GDRs has been in use since 1927 in Western capital markets. Originally they were designed as an instrument to enable US investors to trade in securities that were not listed in US exchanged in the form of American depository receipts (ADRs). Issue traded outside the US were called International Depository Receipt (IDR) issues.

Until 1983, the market for depository receipts was largely investor driven and depository banks often issued them without the consent of the company concerned. In 1983, the securities and exchanged commission (SEC) of the US made it mandatory for certain amount of information to be provide by the companies.

Till 1990, the companies had to issue separate receipts in the United states (ADRs) and in Europe (IDRs). Its inherent weakness was that there was no cross border trading possible as ADRs had to be traded, settled and charged through DTC (an international settlement systems in the US) while the IDRs could only be traded and settled via Euro clear in Europe.

In 1990, changes in Rule 144A and regulation 5 of the SEC allowed companies to raise capital without having to register the securities within the SEC or changing financial statements to reflects US accounting principles. The GDR evolved out of these changes.

Under Rule 144A, the purchaser may offer and resell those securities to any Qualified Institutional Buyer (QIB) If:

- 1) The securities are not same class as securities of the issuer quoted in NASDAQ or listed on a US stock Exchange.
- 2) The buyer is advised that the seller is relying on Rule 144A; and
- 3) Unless the issuer is a reporting company or is exempt from exchange Act registration under Rule 12g 3-2(b), the buyer, upon request, has the right to receive at or prior to the time of sale, specific financial statements of the issuer and information as to its business.

In view of the foregoing, it is permissible for a foreign private issues to sell its shares through an underwriter into the US provided the shares are eligible for Rule 144A treatment and US market is limited to QIBs. To accompliosh this, the underwriter would purchase the securities from the issues in a transaction exempt from the registration requirements of the securities Act and relying upon Rule 144A, resell those securities to QIBs in the US.

A leading south Korean trading company, Samsung co. Ltd. Which floated a truly global instrument in December 1990, tradable both in Europe and in the US, set the trend for GDR issues. The GDR issue allowed the company to raise capital both in US and Europe simultaneously through one security.

Depository Receipts (DRs) are offered for subscription as under:

- a) Un-sponsored: Issued by one or more depositories in response to market demand.

Today this is obsolete.

- b) Sponsored: This is prominent today thanks to flexibility to list on a national exchange in the US and the ability to raise capital.

- 1) **Private Placement (!\$\$A) DRs:** A company can access the US and other markets through a private placement of sponsored DRs. In this a company can raise³ capital by placing DRs with large institutional investors and avoid registering with the SEC. The National Association Of Securities Deal (NASD) of the US has established an Electronic Trading System similar to NASDAQ, called PORTAL within which Rule 144A eligible securities approved by NASD for deposit may be traded by QIBs.
- 2) **Sponsored Level DRs:** This is the simplest method for companies to access the US and non-US capital markets. Level-I DRs trade on the OTC market and as a result the company does not have to comply with US generally accepted accounting principles (US GAAP) or full securities and exchange commission (SEC) disclosures. Under this, companies enjoy the benefits of a publicly traded security without changing the current reporting process.
- 3) **Sponsored Level II and III DRs:** Companies that wish to either list their securities on an exchange in the US or raise capital, use sponsored level II and III DRs respectively. Each level requires different SEC registration and reporting plus adherence to US GAAP. The companies must also meet the listing requirements of the National Exchange or NASDAQ whichever it chooses.

Need for GDR issues by Indian Companies

The specific needs of Indian companies to issue GDRs are as follows.

- i) To raise valuable foreign exchange,
- ii) To meet the expansion and diversification needs of these companies,

- iii) To globalize the demand for the scrips of these companies,
- iv) To leverage the corporate names of these companies in the global capital market,
- v) To mitigate the rising cost of domestic capital due to stringent monetary conditions at home and
- vi) To broad-base share holdings in these companies are the specific needs that were sought to be fulfilled by these GDR companies.

Requirements for Issuing GDRs

In a directive issued on November 12, 1993, the Government of India laid down certain provision governing issues of GDRs and foreign currency bonds. The key provisions are as follows:

- Prior permission from the department of Economic Affairs, ministry of Finance is mandatory.
- Company seeking such approval must have a consists track record of good performance.
- The custodian shall be a Domestic Custodian Bank.
- The aggregate of the foreign investment in the company, direct or indirect, shall not exceed 51% of the issued and subscribed capital of the issuing company (This is exclusive of general permission of offshore funds or

FIIIs to invest upto 24% or 30% as the case may be.

In addition the notification contains details of taxation are men tioned in the text. Dividends are subject to a 10% withholding tax and capital gains (if the underlying shares are sold in India or to an India resident) at maximum marginal rate if short term (holding period less than 12 months) and 10% if long term are provided for.

Subsequently, in may 1994, the Government of India issued further guidelines intended to further regulate the access and the use of funds. The May 1994 guideliens specify inter alia:

- 1) A company can make a GDR issue only once in a period of 12 months. A group of companies can make no more than two issues.
- 2) The funds mobilized must be used within a year of the issue date for one or more of the following purposes:

- a. Import of capital equipment.
 - b. Purchase of domestic plant, equipment and buildings.
 - c. Prepayment or scheduled repayment of an existing foreign currency liability.
 - d. Funds a joint venture or a project abroad provided the same has been approved by the Government.
 - e. Up to 15% of the issue proceeds can be utilized for “general corporate restructuring purposes”.
- 3) On a case-by-case the Government may approve retention of the proceeds abroad to be used as prescribed. Otherwise the funds must be repatriated to India within two weeks of the issue.
 - 4) In certain cases, GDR investment will be treated on par with foreign direct investment and hence will require prior clearance by the Foreign Investment Promotion Board (FIPB).

The guidelines are subject to review and revision every three months. GDR can be offered to US investors only if very stringent requirements of registration with the SEC are complied with.

However, under an exemption granted by Rule 144A of the securities Act, securities can be offered to Qualified Institutional Buyers (QIBs) without going through the registration process.

Parties to GDRs

The key involved in a GDR issue apart from the issuing company are:

- i) The lead manager (s0: An investment bank which has the primary responsibility for assessing the market and successfully marketing the issue. It helps the company at all stages from preparing the documentation, making investor presentation, selection of other manager (subscribers) and post-issue support. It also owes a responsibility to investors or presenting an accurate picture of the company’s present status and future prospects, to the best of its knowledge. This means that it must exercise due diligence in collecting and evaluating all possible information which may have a bearing on the issue.
- ii) Others managers or managers or subscribers to the issue agree to take and market parts of the issue as negotiated with the lead manager.

- iii) **Depository:** A bank or financial institution, appointed by the issuing company which has certain duties and functions to be discharged vis-à-vis the GDR holders and the company. For this it receives compensation both from the company as well as the GDR holders.
- iv) **Custodian:** A bank appointed by the depository, generally in consultation with the issuing company which keeps custody of all deposited property such as share certificates, dividends, right and bonus shares etc. It receives its fees from the depository.
- v) **Clearing systems:** EUROCLEAR (Brussels), CEDEL (London) are the registrars in Europe and Depository Trust company (DTC) is the registrar in USA who keep records of all particulars of GDRs and GDR holders.

Steps in issue of GDRs

The steps involved in the GDR mechanism can be summarized as follows:

- i) The amount of issue is finalized in US dollars. The company considers factors such as gearing, dilution effect on future earnings per share etc. The lead manager assesses the market conditions.
- ii) The lead manager and other managers agree to subscribe to the issue at a price to be determined on the issue date. These agreements are embodied in a subscription agreement signed on the issue date.
- iii) Usually, the lead manager has an option to subscribe to specified additional quantity of GDRs. This option called green shoe has to be exercised within a certain number of days.
- iv) Simultaneously, the Depository and the Custodian are appointed and the issuer is ready to launch the issue.
- v) The company issues a share certificate equal to the number of GDRs to be sold. This certificate is in the name of the Depository, kept in custody of the custodian. Before receipts of the proceeds of the issue, the certificate is kept in escrow.
- vi) Investors pay money to the subscribers.
- vii) The subscribers (i.e. the lead managers and other managers to the issue) deposit the funds with the Depository after deducting their commissions and expenses.
- viii) The company registers the depository or its nominee as holder of shares in its register of shareholders.

- ix) The Depository delivers the European Master GDR to a common depository for CEDEL and EUROCLER and holds an American Master GDR registered in the name of DTC or its nominee.
- x) CEDEL, EUROVLAR and DTC allot GDRs to each ultimate investors based on the data provided by the managers through the depository.
- xi) The GDR holders pick up their GDR certificates. Anytime after a specified “cooling off” period after close of the issue they can convert their GDRs into the underlying shares by surrendering the GDR to the depository. The Custodian will issue the share certificates in exchange for the GDR.
- xii) Once surrendered in exchange for shares, such shares can not be reconverted into GDRs. That is there is no fungibility.
- xiii) The GDRs are listed on stock exchanges in Europe such as Luxembourg and London.
- Xiv) Dividends paid will be collected by the custodian converted into local currency and distributed to GDR holders.

The costs of the issue consist of various fees, commission and expenses paid to the lead manager and other managers, fees and expenses paid to the depository, preparation of documents, legal fees, expenses involved in investor presentation (road shows etc.) listing fees for the stock exchanges, stamp duties etc. Fees and commissions paid to managers vary but are generally in the neighborhood of 3-4% of the issue amount. This is for less than issue costs in India which range between 8% to 15% of the issue size.

GDR holders have the right to dividends, the right to subscribe to new shares and the rights to bonus shares. All these rights are exercised through the depository. The depository convert the dividends from rupees to foreign currency. GDR holders have no voting rights. The depository may vote if necessary as per the Depository Agreement.

American Depositary Receipt (ADR)

ADRs are financial assets that are issued by U.S. banks and represent indirect ownership of a certain number of shares of a specific foreign firm that are held on deposit in a bank in the firm's home country. The advantage of ADRs over direct ownership is that the investor need not worry about the delivery of the stock certificates or converting dividend payments from a foreign currency into U.S. dollars. The depository bank automatically does the converting

for the investor and also forwards all financial reports from the firm. The investor pays the bank a relatively small fee for these services. Typically non-Canadian firms utilize ADRs. For example, Mexican firms are traded in this manner in the United States – at yearend 1993, all 13 Mexican firms with their stock listed on the NYSE utilised ADRs. In March 1999, the first even ADR issue by an Indian firm took off. The Information Technology Ltd., floated ADRs which were received very well.

One study that examined the diversification implications of investing in ADRs found that such securities were of notable benefit to U.S. investors. Specifically, a sample of 45 ADRs was examined and compared with a sample of 45 U.S. securities over the period from 1973 to 1983.

Using an index based on all NYSE – listed stocks, the betas of the ADRs had an average value of .26, which was much lower than the average beta of 1.01 for the U.S. securities. Furthermore, the correlation of the ADRs returns with those of the NYSE market portfolio averaged 0.33, whereas U.S. securities had a notably higher average correlation of 0.53.

Given these two observations, it is not surprising that portfolios formed from U.S. securities and ADRs had much lower standard deviations than portfolios consisting of just U.S. securities. For example, portfolios consisting of 10 U.S. securities had an average monthly standard deviation of 5.50%, whereas a 10-security portfolio split evenly between U.S. securities and ADRs had an average monthly standard deviation of 4.41%. Thus in contrast to investing in multinationals, it seems that investing in ADRs brings significant benefits in terms of risk reduction.

The SEC currently requires that foreign firms prepare their financial statements using U.S. generally accounting principles (GAAP) if they want their shares or ADRs to be listed on a U.S. exchange or an NASDAQ. There are two consequences of this requirement. First, many foreign firms have their shares and ADRs traded in the part of the over-the-counter market that does not involve NASDAQ. Second, many large and actively traded foreign firms have decided against listing their shares in the United States.

This has caused U.S. exchanges to fear that certain foreign exchanges which do not have such reporting requirements (particularly London) will reign as the financial centers of the world in the future. In response to the complaints of the exchanges, the SEC argues that this requirement is necessary to protect U.S. investors and that it would be patently unfair to U.S. firms if they had to meet such requirements but their foreign competitors did not have to do so.

Debt Instruments

Debt instruments ADR. global debt market is much older than global equity market. earlier the multiparted and bilater. debt instruments in full form. Debt instruments took several forms viz. straight bonds. Syndicated loans. Floating rate bonds. Convertible bonds etc.

Varieties of Global Market Debt Instruments

Debt investment guarantees periodic current return and priority repayment of capital over equity investment in the event of winding up. Of course, debt investments are redeemable after a fixed time period, usually 7 years or so. Security is there. Risk averse investors go for this investment. A brief description of debt instruments available in the Euro-market.

Bonds

For starters, there is a veritable plethora of securities, such as Euro-bonds, Yankee bonds, Samurai bonds, and Dragon bonds which tap the European, US, Japanese, and Asia-Pacific markets, respectively. More specifically, Eurobonds are unsecured debt securities maturing at least a year after the launch. Usually fixed-rate instruments, with bullet repayments-one-shot redemption-these bonds are listed on stock exchanges abroad. And borrowers access global investors with deep pockets: individuals with high net worth as well as institutions.

The volume of Eurobonds issues from the world's emerging markets hovered around the \$29-billion mark, with the average size of an issue being \$127 million some five years ago. The most popular instrument among emerging market borrowers: a Eurobond with a 144-A tranche. That is, a public offering in the Euro-market and a private offering in the US.

Foreign Commercial Paper

Commercial papers are continuously offered unsecured debt by the borrower. Most FCPs mature in 30, 60, or 90 days and are sold at a discount to their face value. That reflects the interest on the instrument as well as the overall yield to the investor. It's extremely flexible, since commercial papers can be structured according to different maturities, amounts and rates according to the issuer's needs for funds.

Fixed/Floating Rate Notes

This debt instrument matures in 90 days' time but it can be extended at the issuer's option for an additional period at each maturity date; simultaneously, the interest rate also increases. Several variations are possible; extendable bonds and stepped-up coupon puttable bonds. As the term suggests, hold on to the bonds for some more time usually at a higher coupon rate.

As for stepped-up coupon puttable bonds, they are a hybrid between debt with warrants and extendable bonds or notes. After a specified period of time, investors can either put the bonds back up to the issuer or hold on to the bonds for a stated period at a higher-stepped-up-coupon rate.

Flip-Flop Notes

A bond with reverse flexibility, a flip-flop note offers investors the option to convert to another debt instrument. And in some cases, investors can even go back to the original bond at a later date.

The option changes the maturity of the issue and the interest rate profile. It gives issuers the opportunity to persuade investors to accept lower interest rates, thus reducing their costs. Conversely, investors have options which come in handy when interest rates fluctuate sharply.

Dutch Auction Notes

Here, investors bid for seven-year notes on which the coupon rate is re-priced every 35 days. As a result, the notes are sold at the lowest yield possible. Bids are conducted through a real auction by dealers in the US markets. The main advantage is that these notes provide money for longer periods than commercial paper, since they are re-priced only once every 35 days and, unlike commercial paper, are not redeemed and resold.

Bunny Bonds

These bonds permit investors to deploy their interest income from a host bond into more bonds with the same terms and conditions. Since the option to reinvest interest at the original yield is attractive to long-term investors, like the pension funds, companies find it a cheap source of finance.

Euro-Rupee Bonds

It doesn't exist yet, but several foreign institutions are toying with the idea of gobbling together such a tool for wary companies. Denominated in rupees, Euro-rupee bonds can be listed in, say, Luxembourg. Interest will be paid out in rupees, and investors play the risks of currency fluctuations.

Euro-Convertible Bonds

It's the most exciting

Euro-option available. Equity-linked debt instruments, which can be converted into GDRs. ECBs represent the best of both worlds. And they may soon overtake GDRs in terms of their popularity in this country.

Traditionally, investors have the option to convert any such bonds into equity according to a pre-determined formula-and, appropriately, even at a pre-determined exchange rate. Such bonds allow investors the flexibility to remain with the debt instrument if the share price refuses to rise. These bonds have also spawned subtle variations like those with call and put options, which allow the issuer to insist on conversion beyond certain limits or permit investors to sell the bonds back to the issuer. What's more significant are the structural variations that the Euro-market is becoming famous for.

Deep Discount Convertibles

Such a bond is usually at a price which is 70 to 80 per cent of its face value. And the initial conversion prices and the coupon rate levels, are lower than that of a conventional Eurobond.

ECBs with Warrants

Strictly speaking, these financial instruments are nothing but derivatives of Euro-bonds. They are combination of debt, with the investor getting an option on the issuer's equity. The equity, or warrant, is detachable from the host bond and it can be cased after specific points of time. However, the bonds, which have a debt life of seven to 10 year, remain outstanding until they mature. "There can be expectations of the issuer and the lender". For instance, they could be zero coupon which carry a conversion option as a predetermined price, which are called liquid yield option notes.

Bell Spread Warrants

These warrants offer an investor exposure to the underlying share between a lower level, L, and an upper level, U. The lower level is set to provide a return to investor above and divided yield on the share. After maturity- usually three years – if the share is below the level L, then the investor receives the difference from the company.

Compensating for the downside protection, the issuer can cap the up-side potential on the share. When it matures, if the issuer's share price is above the level U, the issuer has to pay out only the amount U. If the stock is between L and U on maturity, the issuer has a choice of either paying the investor cash or delivering shares. As the minimum return is set above the divided yield on shares, the structure works best for companies with a low divided yield.

Money-back Warrants(MBW): MBWs entitle an investor to receive a certain predetermined sum from the issuer provided the investor holds the warrant until it matures, and does not convert it into shares. To the investor, the cost of doing so is not only the cash he loses, but also the interest foregone on the sum of the money. This means that companies must offer a higher premium than they normally do.

Syndicated Loan

The earlier to be evolved and, for a time, the most dominate from a cross border lending was the syndicated bank loan. Through the late seventies and early eighties most of the developing country borrowers relied on this source since their credit rating and reputation were not good enough for them to avail of other avenues such as bond issues. A large bank loan could be arranged in a reasonably short time and with few formalities. This was also a period during which banks found themselves being flooded with inflows of short term funds and a relatively repressed demand for loans from their traditional developed country borrowers.

Euro Market Instruments

To day instruments market is integrated and globalized one. the euro market speaks of the integrated nature of the global investment market. It is mainly interbank market dealing in euro currency deposit and euro currency loans. Some of the instruments dealt in the market are; euro bonds. Commercial papers, certificate of deposits. Floating rate notes etc. a brief description of these instruments are given here.

Eurocurrency Deposits

Eurocurrency deposit refers to the deposit of a currency with the banks outside the country where the currency is legal tender. Hence Eurocurrency deposit consists of all deposits of currencies placed with banks outside their home currency. Deposits are placed at call or for fixed periods as time deposits. Call deposits may be made for overnight, two days or seven days notices. Time deposits are accepted in the periods of 1,3,6, and 12 months. In general the deposits are accepted in the Eurocurrency market for a minimum of U. S. dollar 50,000/- or its equivalent in other currencies.

Certificate of Deposit

Certificate of deposit is a certificate issued by a bank evidencing receipt of money and carries the bank's guarantee for the repayment of principal and interest.

Certificate of deposits are negotiable instruments and are issued payable to bearer and are traded in the secondary market. The certificate of deposits are issued for a minimum denomination of U.S dollar 50,000/- and for a maximum period, generally, of 1 year.

Certificates of deposits provided an excellent avenue to the investors in Eurocurrency market who would like to park their surplus in the high interest instrument with liquidity. For example if an investor say bank has surplus fund which it would like to invest for a period of say 3 months it can buy a C.D. for 3 months. If need be, the bank can sell the C.D. in the secondary market and liquidate it.

Types of Certificates of Deposits

1. Straight or Term CDs: These are certificates of deposits with a fixed rate of interest and a fixed date of maturity (Generally 1-12 months). The interest is fixed in term of LIBOR and interest rate depends on the issuing bank and liquidity position in the market.
2. Floating Rate CDs: These are certificates of deposits which are issued with the interest rate linked to the LIBOR rate and are normally issued for a period of maximum of 3 years. Interest rate is reviewed at predetermined periodicity say every six months and adjusted in line with the base rate LIBOR rate.
3. Discount CDs: These are issued at a discount and are paid at maturity for the face value, the difference between the issue price and face value represents the interest.

4. Trenches CDs: A Tranche CD is a share in a programme of CD issues by a bank upto predetermined level. Each Tranche CD carries the same rate of interest and matures on the same date.

They are normally placed directly with the investors and they represent short term bonds. These CDs are issued with maturities upto 5 years.

Euro Credits

In THE Eurocurrency market, most of the lending takes places in the form of Eurocredit. Eurocredit are medium and long term loans given by the banks in currencies which need not necessarily be those of the lenders or borrowers.

Security Aspects of Eurocredit

Eurocredits are provided mostly without any collateral security but the emphasis is on the credit rating of the borrower. In view of the difficulties experienced in enforcing securities the lending is made on strength of the standing of the borrower in the market.

Nature of Facility

Eurocredit are extended either as revolving credits or as term credits. Under revolving credit, a limit is fixed for a borrower and he can draw whenever he needs and interest will be levied only on the amount drawn. On the unutilized portion of the sanctioned limit, a commitment fee may be charged. Under the term credit facilities, the credit is extended for a specified term like say 3 year, the amount is disbursed as per the term of the contract. The repayment takes place over a period of time as per the agreed schedule.

Eurocredits are extended generally for a period of 5 to 8 years. In some cases it may go upto 15 years.

Interest

A special feature of Eurocredit is the method of fixing the interest rate. Interest rate are tied to benchmark of reference rate. The benchmark is the London interbank Offered Rate. For dollar credits LIBOR is used as benchmark while LUXIBOR (LUXEMBOURG Interbank Offered Rate) is used as benchmark rate for credits extended in Deutschmark and for credits in Pound Sterling Paris Interbank offered rate (PIBOR) is taken as the base rate. The interest is quoted as so many basic points above the reference rate like 100 basic

points above LIBOR above LUXIBOR etc, This is known as margin and the margin depends on the credit rating of the borrowing, and his bargaining power. The interest is reviewed every six months and changed in tune with the reference rate.

Currency

The credits are generally extended in U.S. dollar but other currencies are also used for lending. IN some cases, the credit agreement provides for currency option. Under the arrangement the loan is originally given in one currency with the option to the borrower to roll the loan in a different currency if need be. This helps the borrower to protect against exchange risk.

Euro Loan Syndication

Euro Loan syndication was one of the earlier forms of lending evolved and remains to be one of the dominant form of crossborder lending. When the size of the lending is huge running into a few hundred million or billions, a few banks join together and provide the loan. This is loan syndication in simple term. It owes its evolution to U.S. Laws which fixed certain limits on lending exposure of a single bank on a single borrower.

A syndicated credit is the agreement between two or more lending institutions to provide a borrower a credit facility utilizing common loan documentation.

An appropriate definition will be.

“International syndicated credits are managed and underwritten by one or more financial institution normally from a location other than domicile of the borrower to include lender from differing banking geographic which provides the borrower access to more than its own currency of domicile.

In arranging a syndicated loan the following player take a major role.

1. **Managing Bank:** Managing bank is appointed by the borrower to arrange the credit. The managing bank helps the borrower to draw up the loan application, it negotiates the term and conditions with other banks and arranges the syndicate. The managing bank's role comes to an end with the signing of loan agreement by the borrower and the participating banks
2. **Lead Bank:** Lead Bank is the bank which provides the major chunk of the loan.

3. **Agent Bank:** Agent Bank is the bank appointed by the lenders to look after their interest once the loan agreement is signed. They take over from the managing bank.
4. **Participating Bank:** The participants in a syndicated loan fall into the following segments.
 - a. The wholesale large commercial banks who arrange the credits, take lion's shares.
 - b. The retail sector small banks take whatever share is given to them and take a participation in the loan syndication.

Loan syndication is the most popular method of raising short term and medium term loans. Most of the developing country borrowers rely on this source of credits since their ratings and market standing are not good enough to avail of other avenues like bond issues etc. A large bank loan could be arranged in a reasonably short time and with few formalities. Minimum amount of syndicated loan raised is normally 50 million US dollar and the maximum amount is normally 5 billion US dollar and are given for a period ranging from 365 days to 20 years.

Apart from interest the following fees are payable in a syndicated loan

1. **Management Fee** is the fee payable to managing bank which arranges the credit. It is payable upfront and is fixed as a percentage of the loan arranged.
2. **Participation Fee** is the fee payable to the participants in the syndicate. A part of the management fee is passed on to the participant banks in proportion to their share as participation fee.
3. **Commitment fee** is the charge paid on undrawn balances of the credit. This is also known as facility fee and is levied to compensate the banks for keeping funds ready.
4. **Agency Fee** is the fee payable to the agent bank which takes care of disbursement of the credit after sanction, recovery of loan instalments and distribution of principal plus interest to the participants and this is an annual fee.

Unique features of syndicated loans

1. Access to Euro-currency markets
 - a) Free from Regulatory Control
 - b) Offshore banking- global converge
 - c) Flexibility to suit the borrower's and lender's changing needs.

2. Recycling of Eurodeposits from surplus to deficit areas.
3. Transform short term eurodeposits to medium/long term euro credits.

Concepts of Loan Syndication

1. Agreement between two or more lenders
2. Common borrower.
3. Common documentation.
4. Different from unsyndicated or independent borrowings from multiple banks.

Advantages to Lenders

1. Spreading of risk.
2. Access to big borrowers.
3. Access to credit judgments/ marketing skills of sophisticated banks.
4. Sources of fees i.e non interest income.
5. Advertisement.

Advantages to the Borrower

1. Ability to raise Jumbo loans in one stroke.
2. Single tap funding.
3. One set documentation. Hence less hassle.
4. Flexibility in the borrowing and speed which ensures timely delivery of credit.

Protection to the Lenders

To protect their interest the lending bank lays down certain financial covenants which are included in the agreement. The covenants are financial values or ratios to be maintained by the borrower and the following are the few.

- a) Debt-equity ratio
- b) Dividend payout ratio
- c) Debt service coverage ratio

Normally the lending banks analysis before sanction the credit standing of the borrower, his country's credit standing, and his country's economic and political situation.

Even though all members of a syndicate sign a common loan agreement each lending bank is responsible for its own decision. Any misrepresentation of fact by the borrower or failure to perform the covenants is defaults by the borrower. Default with any single lending bank will be construed as default with all banks. Since the credits fall outside the jurisdiction of any court the legal recourse is difficult and hence settlement through political negotiation is normally resorted to in case of defaults.

Euro Bonds

Eurobonds constitute a major source of borrowing in the Eurocurrency market. A bond is a debt security issued by the borrower which is purchased by the investor and it involves in the process some intermediaries like underwriters, merchant bankers etc.

Eurobonds are bonds of international borrower's sold in different markets simultaneously by a group of international banks. The bonds are issued on behalf of governments, big multinational corporations, etc. Euro bonds are unsecured securities and hence normally issued by Governments, Governmental Corporations, local bodies which are generally guaranteed by the Governments of the countries concerned and big multinational borrowers of good credit rating. The bonds are sold by a group of international banks which form a syndicate.

The lead bank in the syndicate, advises the issuer of the bond on the size of the issue, terms and conditions, timing of the issue etc., and take up the responsibility of coordinating the issue. Lead managers take the assistance of co-managing banks. Each issue is underwritten by a group of underwriters and then are sold.

Feature of Euro bonds

Eurobonds are mostly bearer bonds and are generally denominated in U.S. dollar, issued in the denominations of U.S. dollar 10,000/- The bonds are issued for a period of about 5 to 7 years though in some cases they are issued for a longer duration.

Types of Bonds

The following are the types of bonds:

1. Straight or fixed rate bonds
2. Convertible bonds
3. Currency option bonds

4. Planning rate bonds/Notes
5. Zero coupon bonds

(I) Straight or Fixed Rate Bonds

These are the traditional bonds which are debt instruments carrying a fixed interest with a fixed maturity period with interest payable at a fixed predetermined interval, say 6 months or 1 year. The period of such bonds vary from 5 to 25 years but commonly bonds are issued by a period of 15 years.

These are issued for a face value with a certain percentage of interest payable at a certain periodicity and are redeemable after the expiry of the period specified.

These bonds are traded in the secondary markets which provide liquidity to the bonds.

Though the bonds are issued for a fixed maturity, some bonds are issued with a clause that the bonds are redeemable by the issuer, at issuer's choice, prior to its maturity at a price which is above the face value (call price).

These are known as callable bonds and are a simple variant of straight bond. This feature of the bond allows the issuers to restructure their liability and provides flexibility.

A puttable bond is another variant of straight bonds and is opposite to callable bond. It allows the investor to surrender the bonds to the issuer of the bond prior to maturity of the bonds, at the discretion of the investor, after a certain period after issue. This provides liquidity to the investor and may have to pay for this privilege in the form of lower interest.

Though the interest is fixed on the bonds, the yield varies with the purchase price of the bonds. The market price at which the bond is bought by the investor either in the primary market (new issue market) or in the secondary market (an existing issue made sometime in the past) is its purchase price which may be same as the face value of the bond or may be lower or higher than the face value depending upon whether the bond was purchased at a discount or at a premium. The yield varies with the purchase price of the bond.

(ii) Euro Convertible Bonds

These are similar to fixed or straight bonds with an option to convert them at the discretion of the investor into the equity shares of the issuing company. The conversion

will be done at a price (which determines the number of shares for which the bond will be exchanged) after expiry of a certain period of time. These convertible bonds are similar in nature to the convertible debentures in our country.

Conversion of the bond into equity shares is done at the discretion of the bond holder and he can opt for it if the market prices of the shares are higher than the conversion price.

Convertible bonds are attractive from investment perspective because it gives the investor an opportunity to participate in the company's growth. Additionally, the bonds are normally issued in a currency other than the currency in which the shares are denominated and hence conversion into shares in a different currency provides the investor much needed currency diversification in investments.

This instrument is preferred by those who find the domestic (their country) debt market to be restrictive for short maturities, high rates of interest and various covenants of commercial loans in foreign currency unacceptable. This also favoured by those who wish to prevent immediate dilution of equity and possible loss of control over management.

Hence Euro convertible bonds are equity linked debt security instruments that can be converted into shares.

Warrants: This is a variant of the convertible bonds. The bond is issued with warrants which are detachable. The warrant gives the holder the right to purchase a financial asset say shares at a stated price. The warrants are tradable. The investor can keep the bond and trade the warrant for the shares.

(iii) Currency Option Bonds

These bonds are similar in nature to the straight bonds with a difference that it is issued in one currency with an option to take interest and principal in another currency. The rate at which the conversion takes place from one currency into another depends upon the terms of the issue.

The rate may be fixed at the time of issue of bonds or at floating rates. Due to fluctuations observed in foreign exchange market the later option of floating rates are more popular and under this the rate of conversion is the spot rate quoted in the market three business days before the due date of payment of principal and interest.

(iv) Floating Rate Bonds/Notes

These are similar to the straight or fixed rate bonds as far as maturity and denomination are concerned but the difference is that unlike the fixed rate bond where the interest rate is fixed, in this the interest rate is varying in nature.

The interest rate is linked to a base rate like LIBOR and the interest payable on the bond for the next six months or one year is set with reference to the base rate. The rate of interest is adjusted every six months or one year depending on the terms for the issue.

In some cases, a ceiling is put on the interest rate on the bond and in some cases a floor rate is fixed.

The floating rate bonds offer flexibility to the investors who can block their funds for a long term with benefits of the short term interest movements, i.e. if an investor invests for a period of say 10 years and if the money market shows gradual increase in the interest rates his funds do not get blocked at lower rates but interest keep changing with the changes in the interest rates in the market FRNs are normally issued by bankers.

(v) Zero Coupon Bonds

These bonds are purchased at a substantial discount from the face value of the bond and are redeemed at face value on maturity. There are no interim interest payments. The difference between the purchase price and face value is the return on the investment.

These bonds are similar to cumulative deposits or cash certificates of banks in our country.

Distinction between Eurobonds, domestic bonds and foreign bonds

Domestic bonds are bonds issued by a resident issuer in the country of its residence, denominated in the currency of the country.

Example: State Bank of India bonds sold in India to Indian residents denominated in Indian rupees is domestic bond.

Foreign bonds are bonds issued by a non resident entity denominated in the currency of the country where the bond is issued.

Example: India Development Bonds issued by State Bank of India in U.S.A. denominated in U.S. dollars are foreign bonds.

Eurobonds are bonds denominated in a currency other than the currency of the country in which they are issued.

Example: A German multinational issuing bonds in London denominated in U.S. dollar qualifies for a Eurobond.

The foreign bonds and domestic bonds are subject to regulations by regulatory authorities and disclosure norms while Eurobonds are not governed by any such regulation or disclosure norms.

Many Eurobonds are listed on stock exchanges in Europe and this require filing of certain financial reports by the issuers to the exchange on a regular basis.

Other Euro-Instruments

Note Issuance Facility and Euro Commercial Paper are dealt her.

Note Issuance Facility

This is an innovation of early 80's. It combines the features of syndicated banks loans and floating rate notes issued to the investors. This instrument satisfies the investors' need for short term investment and borrowers' need for medium term funding.

In this instrument the issuer obtains medium term funding by issuing short term notes to the investor directly and keep them rolling over repeatedly. Thus every six months or one year, the previous issue would be redeemed and a fresh issue will be made.

In order to ensure that the issuer gets the fund whether or not the notes are taken up by the market, a group of underwriters (syndicate of banks) underwrite the issues and thereby undertake an obligation to take up the part of issue which is not subscribed to by the market. The issuer of the bond pays a fee for this underwriting facility.

Note issuance facility represents a combination that best suits all parties. Parties with good rating can raise funds at a rate lower than the rate at which banks lend. Investors who generally prefer short term investments find this attractive as they are redeemed in a short time by the issuer and reissued.

Underwriting facility ensures smooth flow of funds to the borrower. This ensures income to the banks by way of underwriting fees.

Commercial Papers

Commercial Paper (CP) is a short term unsecured promissory note that is generally sold by large corporations on discount basis to institutional investors and other corporates for maturities ranging from 7 to 365 days. Commercial paper is cheap and flexible source of fund for highly rated borrowers as it works out cheaper than bank loans. For an investor it is an attractive short term investment which offers higher interest than bank accounts.

In U.S.A. the commercial paper is in existence for more than 100 years and accounts more than 400 billion US dollars. U.S.A. is the largest commercial paper market. It is used extensively by U.S. and non U.S. corporations.

Any issuer who wants to launch a C.P. in U.S.A. has to get it rated by Moody's or by Standard and Poor's Corporation, the credit rating agencies. The commercial papers then can be placed either directly or through C.P. dealers. The major investors are Corporates, Trusts, Insurance Companies, Pension Funds and other funds, banks etc.

Commercial papers can be issued either directly in their own name or with third party support in the form of standby letters. Most C.P. programs have a back-up credit line of a commercial bank covering at least 50% of the issue.

In Europe, commercial paper evolved out of Euronotes like Note issuance facility, which are under-written facilities. As the underwriting facility is expensive, in 1984, Saint Gobain, an issuer and Banque Indo-Suez dealer issued Euronotes without underwriting facility and thus became the first Euro-CP issuer. The commercial paper issues in the Euromarkets developed rapidly in an environment of securitisation and disintermediation of traditional banking.

Euro CPs are not rated by rating agencies as the Euro investors are not keen about the ratings of issuers.

Advantages of Euro CP's to Borrowers

1. Cheaper source of funds.
2. Simplicity in documentation, low cost of arrangement, absence of rating requirements.
3. Flexible maturity.
4. Diversification of short term funding through market that is found attractive by wide variety of investors.

5. Flexibility in limits determined by the issuer's cash flow requirements at any point of time.
6. A successful Euro CP programme will enhance the reputation of the issuer worldwide among the investing community.

Different between Euro & U.S. CP Programmes

	Euro CP Programme	U.S. CP Programme
1.	Do not distinguish the issuer's nationalities	U.S. investors expect higher returns from foreign issuers of comparable rating with U.S. issuers
2.	Low rated CPs are issued by U.S. issuers	Better rated CPs are issued by issuers
3.	Central Banks, Corporate funds are the investors	Money market funds are the investors
4.	Euro CP is traded in secondary market	Held by the investor until maturity
5.	Very competitive	Less competitive
6.	No credit rating required	Credit rating required
7.	Priced in relation to Bank rate	Priced in relation to treasury bill, Bank CD rates
8.	Time consuming process	Simple process

In recent years, the growth in the number of new issues and volume has slowed down in Euro commercial paper markets. As a result of some defaults, investors' concern about credit worthiness has increased dramatically.

A brief description about global financial institutions and Development banks are given below

International Bank for Reconstruction and Development (IBRD or the World Bank)

The International Bank for Reconstruction and Development (the IBRD or the World Bank) came to be established by the international Economic Conference at Bretton Woods in July 1944. The World Bank started functioning from June 1946.

Objectives of the World Bank

The objectives of the World Bank set forth in the Bretton Woods Agreement are as follows:

- To render assistance in the reconstruction and development of member countries by facilitating investment of capital for productive purposes and help restoration of economies from enormous destruction brought about by the World War II (1939-

45) (Reconstruction), and also to provide encouragement to the development of productive resources of less developed countries (hence the word 'Development' in the full title of the World Bank)

- To promote private foreign investment by means such as participation in loans or guarantee for loans made by private investors, as also to supplement private investment by its own (World Bank's) loans or finances.
- To promote long-term balanced growth of international trade and help achieve equilibrium in balance of payments position of member countries by encouraging international investments for the development of productive resources and thereby rendering assistance in raising productivity, and standard of living of people in the member-countries.
- To make arrangements for loans or guarantees in respect of international loans so that large and small useful projects are rendered assistance.

Membership and Organisation of the World Bank

The World Bank (as also the International Monetary Fund - IMF) had 149 members in April 1986.

All powers of the World Bank are vested in and exercised by the Board of Governors. Each member-country sends its one Governor for a period of 5 years. There is also an Alternate Governor. These Governors meet once annually. For the purpose of carrying out day-to-day functions of the World Bank, the Governors have delegated their powers to a Board of Executive Directors who meet once every month. At present there are 22 Executive Directors-six are appointed by five member-countries contributing the largest shares of the World Bank's capital, and 16 Executive Directors are elected by the Governors of the remaining member-countries. These Executive Directors are elected for a period of 2 years. The President of the World Bank is also the Chairman of the Board of Executive Directors. The voting powers of the Executive Directors are in proportion to the capital subscribed by member- countries. The Executive Directors are responsible for matters of policy and their approval is necessary for all the loans by the World Bank. The day-to-day administration of the World Bank (including making recommendations regarding granting of loans and recommendations regarding questions of policy to the Executive Directors) is the responsibility of the President of the World Bank.

The President of the World Bank is assisted by a number of Vice-Presidents and Directors of various Departments for different regions. The President of the World Bank

carries on his duties with the assistance of about 6,000 staff members who carry on the day-to-day routine working of the World Bank.

Capital Structure of the World Bank

The World Bank commenced with an authorised capital of US dollars 10 billion, divided into 1,00,000 shares of US dollars 100,000 each. Of this authorised capital, US dollars, 9,400 million were actually subscribed.

As in June 1985, the authorised capital stock of the World Bank comprises of 7,16,500 authorised shares of the par value of SDRL, 00,000 each. Of those 58,154 had been subscribed. Thus, the subscribed capital of the World Bank is SDR 51,315 each.

Ten percent of the subscribed capital has been called and paid by member- countries. The remaining 90 per cent of the authorised capital is subject to call when the World Bank requires it to meet demand for loans or for guaranteeing loans to member-countries.

The World Bank's funding strategy or strategy for raising financial resources follow the four basic objectives:

- (1) To ensure availability of funds to the World Bank (by maintaining unutilised access of funds in markets in which the World Bank borrows);
- (2) To minimise the effective cost of loans to borrowers (through currency mix of the Bank's borrowings);
- (3) To have control over volatility in net income and overall loan charges (for which the Bank started in 1982 variable lending rates system that uniformly adjusts interest charges applicable to all outstanding balance on all loans);
- (4) To provide appropriate degree of maturity transformation between Bank's borrowing and lending.

Borrowing and Lending Activities of the World Bank

The World Bank gives loans primarily from its own medium and long-term borrowings in the international capital markets and Currency Swap Agreements (CSA). Under the CSA, proceeds of a borrowing country are converted into a different currency and at the same time a forward exchange agreement is executed providing for a schedule of future exchanges of the two currencies in order to recover the currency converted.

The World Bank can also borrow under the Discount-Note Programme, by placing bonds and notes directly with governments of member-countries, with government agencies and their central banks. Also, the World Bank offers issues to investors and in public markets through investing banking firms, commercial banks and investment banks.

The total borrowing of the World Bank under its various schemes in the fiscal year 1984 amounted to US dollars 9.8 billion. Also, a substantial amount of the World Bank's resources accrue from the Bank's retained earnings and repayment of loans borrowed earlier from the World Bank.

Lending Operations of the World Bank

Following are the ways in which the World Bank gives loans to its member-countries:-

- (i) By granting loans out of its own funds;
- (ii) By participating in loans out of funds raised in the market of a member-country or otherwise borrowed by the World Bank; and
- (iii) By providing guarantee in part or in full for loans made by private investors through the usual investment channels.

It is stipulated that the total amount of outstanding loans or guarantees provided by the World Bank should not exceed 100 per cent of the Bank's unimpaired subscribed capital, reserves and surplus.

The World Bank gives loans or its guarantees on the following conditions:

- (i) The World Bank is satisfied that in the prevailing market conditions, the borrower is unable to obtain loans under conditions which the Bank considers reasonable;
- (ii) The loans are for reconstruction or development (except in special circumstances);
- (iii) If the central bank of the member- country gives full guarantee for repayment of the principal, interest on loan and Other related charges;
- (iv) The project for which the loan from the World Bank is being sought is recommended by a competent committee after a careful study in its written report; and
- (v) The bonrower is in a position to meet the Bank's obligations.

The World Bank gives medium-term loans and long-term loans usually running up to the completion of the project for which the Bank has given the loan. Long-term loans are

repayable over a period of 20 years or less, with a grace period of 5 years. It is observed that interest rate charged by the World Bank is calculated in accordance with guidelines related to its (i.e. Bank's) cost of borrowing. And, therefore, the World Bank loans carry different rates of interest. There is in addition an annual commitment charge of 0.75 per cent per year on the outstanding balances.

The total World Bank lending during the fiscal year 1985 amounted to US dollars 11.4 billion.

The World Bank's Other Activities

The World Bank's other activities include items such as training, technical assistance, inter-organisational cooperation, economic research and studies, evaluation operations and settlement of investment disputes among member-countries of the World Bank and the IMF.

The World Bank set up Staff College in 1958. It is known as the Economic Development Institute (EDI). The EDI is meant for training senior officials of developing countries. The training is in macro-economic planning, pricing and development policies, management of agricultural research, training in rural health care, industrial policy, railway management and so on.

The World Bank renders technical assistance which is an integral part of the World Bank's programme of activities. This technical assistance is concerned with feasibility studies, engineering designs, construction supervision, management training, and diagnostic and institutional studies.

The World Bank also serves as executing agency in the case of projects financed by the United Nations Development Programme (UNDP). An important function of the World Bank concerns inter-organisational cooperation based on formal agreements such as cooperative programmes between the FAO, the UNESCO, the WHO, the UNCTAD, the GATT, the United Nations Environmental Programme, the ILO, the Asian Development Bank (the ADB), etc.

The World Bank sets aside roughly 3 per cent of its administrative budget for economic and social research. These research programmes started in 1971. About 165 research programmes have already been completed and about 180 were in progress in 1985. The World Bank also renders assistance to research programmes in developing member-countries.

The World Bank helps borrowers of the Bank in post-evaluation of the Bank-assisted projects through its Operation Evaluation Department.

The World Bank has also set up 'International Centre of Settlement of Investment Disputes' between member-countries.

For example, the World Bank successfully solved the problem of river water dispute between India and Pakistan and the Suez Canal dispute between Egypt and the United Kingdom.

The World Bank and India

India is one of the founder-members of the World Bank. In that capacity, India held a permanent seat on its Board of Executive Directors for a number of years. That position was threatened when China applied for membership of the World Bank.

The World Bank has been rendering substantial assistance to India in her efforts at planned economic development. This the World Bank does by granting loans, rendering expert advice in various spheres, and training Indian personnel at the Economic Development Institute (which was established to train senior officials of member-developing countries).

The World Bank has a Chief Mission at New Delhi and it conducts on behalf of the World Bank monitoring and consultation in respect of Bank-aided projects in India.

It needs to be emphasised that since its establishment, India happens to be the largest recipient of the World Bank financial assistance. The Bank since 1949 was committed to 84 loans to India totalling US dollars.7274.7 million till June 1984. In 1984 India borrowed 1.7 billion US dollars from the World Bank, and 670 million US dollars from the IDA and about 2 billion US dollars from commercial sources.

The World Bank has been rendering assistance to India in respect of projects such as developmentof ports, oil exploration including Bombay High, gas-power projects, coal, iron, aluminium, railway modernisation, fertiliser plants, technical assistance and industrial development finance.

It was at the instance of the World Bank that the Aid India Consortium of 12 developed countries was established and it has been helping India substantially by granting loans and other assistance. The World Bank helped India to solve the almost intractable problem of the Indus Water dispute with Pakistan.

Thus, India has received substantial Financial and non-financial assistance from the World Bank for the development of industries, energy, transport, agriculture, etc.

International Monetary Fund (IMF)

The Articles of Agreement of the IMF were formulated at Bretton Woods in the United States in July 1944. The IMF came into existence in December 1945 and it commenced its operations in March 1947.

The Objectives of the IMF

The following objectives of the IMF have been set forth in the Articles of Agreement:

- To promote international monetary cooperation through a permanent institution providing the machinery for consultation and collaboration on international monetary matters
- To help bring about expansion and balanced growth of international trade and thereby contribute to the maintenance of high levels of employment and real income among member-countries;
- To promote exchange rate stability and thus help avoid competitive exchange rate depreciation;
- To provide facilities for multilateral conversions of national currencies and help removal of exchange controls and exchange restrictions; and
- To render help to member-countries to correct maladjustment in their balance of payments.

The IMF aims at promoting international monetary cooperation facilitating expansion and balanced growth of international trade thereby helping member-countries to utilise more efficiently their productive resources and help them to raise real income of the people in the member-countries, to promote exchange rate stability and avoid competitive exchange rate depreciation, to facilitate multilateral exchange rate system, to help shorten duration of disequilibrium in balance of payments of member-countries, and to create confidence among member-countries by providing it resources for correcting maladjustment in balance of payments thus ensuring national prosperity.

Organisation of the IMF

The organisation of the IMF is comprised of Board of Governors, Executive Board, Managing Director, Council and staff. Its headquarter is in Washington in the United States. In addition, there are standing and ad hoc committees appointed by the Board of Governors and the Executive Board. In the case of the IMF, the Board of Governors and the Executive Board are decision-making organs. Their decisions are binding on the member-countries of the IMF.

The Board of Governors is the Apex Body of the IMF. It is composed of one Governor and one Alternate Governor appointed by each member- country. The normal practice is that a member-country appoints its finance minister or governor of its central bank as the Governor on the Board of Governors of the IMF. The Alternate Governor appointed by a member-country can participate in the meetings of the Board of Governors; but he has power to vote, only if the Governor is absent from the meeting.

The Board of Governors of the IMF meets once a year. Detailed account of the activities of the IMF of the previous year is provided before the meeting. Special meeting of the Board of Governors can be called by any of the five member-countries having 25 per cent or more of the total voting rights.

The Board of Governors has delegated to the Executive Board, as a matter of practice, its major decision-making power such as making available the imp's resources to member-countries which have made applications for funds, review of charges and remuneration and review of consultation between the IMF and its member-countries.

The Executive Board of the IMF has 21 members at present. Of these five are appointed by the five member-countries having largest quotas of subscriptions to the IMF. The rest of the members of the Executive Board are elected for a period of 2 years by the remaining member-countries roughly on geographical basis.

The Managing Director of the IMF is elected by the Board of Executive Directors. He is an important international official. As chairman of the executive Board, the Managing Director has no voting power at the meeting of the Executive Board.

The Executive Board is the most powerful body of the IMF and exercises vast powers conferred by the Articles of Agreement and delegated to it by the Board of Governors. It exercises powers that relate to financial activities as also it exercises regulatory and supervisory powers. The Executive Board meets several times a week and may be said to be in continuous session.

The Managing Director, in addition to acting as the Chairman of the Executive Board of the IMF, is also responsible for the organisation and administration of the personnel of the IMF.

Functions Performed by the IMF

It is the duty of the IMF to see that a member-country observes the provisions of the Bretton Woods Articles of Agreement; the IMF is a sort of guardian of 'good conduct' of member-countries in respect of their balance of payments. The IMF aims at reducing trade barriers like tariff and other international trade restrictions such as exchange controls.

The IMF sees that no member-country will without the prior permission of the IMF impose restrictions on making payments or engage in discriminating arrangements or practise the system of multiple exchange rate. The IMF keeps watch on exchange rate policies adopted and followed by the member-countries.

The IMF also gives technical advice to its member-countries on monetary and fiscal policies and problems. It conducts research studies and provides technical experts to member-countries facing balance of payments problems. It also conducts short-term courses on monetary, fiscal and balance of payments for personnel from member-countries.

Lending Operations of the IMF

The IMF is an important international institution. The financial resources at its disposal come from quota subscriptions of the member-countries. Also, the IMF can increase its financial resources by selling gold to its member-countries or by borrowing from governments or central banks of member-countries or from the Bank of International Settlements or if need be from the OPEC.

According to the provisions of the IMF, a member-country can borrow from the Fund by purchasing the needed foreign currencies in exchange of its own currency up to 125 per cent of its quota. However, during any one year, a country can borrow (i.e. purchase) foreign currencies only up to 25 percent of its quota limit. The member-country borrowing foreign exchange from the Fund pays for it in terms of its own currency.

But the borrowing country is expected to pay back the loan in foreign currency in which the country has borrowed (which means the country should buy back its currency in return of the foreign currency which it had borrowed before).

The IMF will grant loans to member-countries to correct disequilibrium in their balance of payments position; but such disequilibrium must be of a temporary type (as for example, due to crop failure on account of drought necessitating foodgrain imports of substantial quantities).

But if disequilibrium in the balance of payments position of a member-country is due to certain fundamental causes such as over-valuation of its currency, under such circumstances, the IMF will not be in a position to help the member-country by lending its financial resources, but will advise the government of the country to bring the value of its currency in line with value of other currencies. Thus, the IMF gives short-term loans to member-countries to correct temporary disequilibrium (i.e. temporary deficits) in balance of payments position of member-countries.

International Development Association (IDA)

It was suggested in 1958 that a new international institution to be known as International Development Association (IDA) be established and administered by the World Bank.

The IDA started functioning from 8th November 1960.

Aims and Objectives of the IDA

The main objective of the IDA has been to provide financial assistance to less developed countries (LDCs) on soft loan basis, which means on terms imposing a lower servicing charge on loans than on conventional loans by the World Bank to its member-countries.

In this connection, the Articles of Agreement concerning the IDA states: “.....to promote economic development, increase productivity and thus raise standard of living in the less developed areas of the world included within the Association’s membership, in particular by providing finance to meet their important development requirements on terms which are more flexible and bear less heavily on the balance of payments than those of conventional loans, thereby furthering the development objectives of International Bank for Reconstruction and Development and supplementing its activities”.

Thus, the IDA grants development loans on concessional and flexible terms than World Bank loans of conventional type. These loans from the IDA are for a period of 5 to 15 years or even more.

The IDA provides a certain percentage of the cost of a project that is meant not only for meeting foreign exchange part of the project but also part of the cost of the project in local currency. Many countries which are unable to borrow from the World Bank (because their projects are not regarded as credit-worthy by the World Bank) are financed by the IDA.

For example, such loans of IDA are for the purpose of water supply, construction of hospitals, housing and sanitary arrangements- objectives or projects for which World Bank loan facilities are not available.

The IDA loans bear a much lower rate of interest than those of the World Bank. In some cases, if warranted, IDA loans bear no interest at all but only administrative charge levied by the IDA. In a number of cases in recent years IDA has given loans to LDCs at $\frac{3}{4}$ percent rate of interest.

Another important aspect of IDA loans is that the loans can be repaid in local currencies of borrowing countries. This ensures that the IDA loans do not have adverse effect on balance of payments of the LDCs.

Membership and Organisation of the IDA

It is provided that any member-country of the World Bank can become a member of the IDA, provided that a country is ready to subscribe to the IDA at the rate of 5 percent of its existing World Bank share capital subscription quota. As on 30th June 1975, of the 125 member-countries of the World Bank, 114 countries were admitted as members of IDA. Of them 10 are developed countries and 94 developing countries.

The organisation of the IDA is similar to that of the World Bank. Thus, IDA has its Board of Governors, Executive Directors and a President, all of whom are holders of these positions in the World Bank. They serve as ex-officio members in the IDA.

The initial subscription of member-countries to IDA amounted to 1,000 million US dollars. For the purpose of subscription and voting power, member-countries of IDA are divided into two parts. Part I consists of member-countries which are relatively more developed and which have paid their entire subscription quota in gold or freely convertible currencies which IDA can use for granting loans to LDCs. Part II consists of member-countries which are less developed; they are required to pay only 10 per cent of their subscription quota in gold or freely convertible currencies and the remaining 90 per cent

in their own national currencies which cannot be used by IDA for granting loans without the previous consent of the member-country whose currency is going to be lent. It was also conceived that the IDA would be receiving additional financial resources from countries mentioned in Part I (i. e. developed countries) from time to time to augment IDA's financial resources and enable it to carry on its lending operations on a larger scale. During 1972-74, the Part I members of the IDA provided 2,410 million US dollars as supplementary resources. Since the establishment of the IDA, Part I countries have provided supplementary financial resources three times.

Asian Development Bank (ADB)

The World Bank had been trying to set up regional development banks and some regional banks have been established for developing countries in Latin America, Africa and Asia

The Economic Commission for Asia and Far East (ECAFE) had made in 1963 a suggestion for a regional development bank for Asian countries. Representatives of the major Asian countries met at Manila in December 1965 to finalise the proposal and the Asian Development Bank came to be formally established in December 1966.

Objective and Functions of the ADB

The basic objective behind the establishment of the ADB is "to promote economic development of and mutual cooperation among the countries of Asia". The ADB's objective is to help accelerate the process of economic development of developing countries in the Asian region.

To realise the objective the ADB performs the following functions:

- To promote investment of public and private capital for economic development of Asian countries;
- To channelise investible funds of the ADB for the implementation of those projects which are important for the development of major sectors of the country's economies;
- To render assistance to member-countries in coordinating their programmes and policies of economic development and at the same time to promote inter-regional trade and cooperation among countries of the Asian region;
- To promote technical assistance for the execution of projects; and

- To mobilise funds for economic development of member-countries by extending cooperation to the world Bank, ECAFE and other United Nations bodies and public as also private institutions located among member-countries.

Membership, Capital Resources and Organisation

The membership of the ADB is open to all countries in Asia, but for procuring additional and substantial financial and other resources, many developed countries of other regions are also admitted as members of the ADB.

By the end of June 1975, the ADB had 27 Asian members and 14 non-regional members, thus making a total of 41 members.

The authorised capital (in terms of US dollars) of the ADB was 3366 millions US dollars as on 31 December 1974. The subscribed capital on that date was 2770 million US dollars.

Besides subscribed capital, the ADB has also raised additional financial resources through borrowings. By December 1973 the total amount of outstanding borrowings by the ADB was 293 million US dollars, about 30% of this being borrowings from Japan in yens.

At the time of the establishment of the ADB, member-countries were asked to deposit only 50% of its subscribed capital in their national currencies.

The Board of Governors is free to call the remainder of the member-country's subscribed capital, whenever the ADB needs additional funds for carrying on its lending activities.

Some of the important non-regional members of the ADB are: United States, the United Kingdom, West Germany, and Canada. Japan is the principal subscriber to the ADB, apart from contributing substantial share capital of the ADB.

Out of the total voting power, 20% has been allocated among member-countries equally, whereas the remaining 80% has been allocated on the basis of subscribed share capital by each member of ADB.

The management of the ADB is entrusted to the Board of Governors constituted by representatives of the member-countries of the ADB. The Board of Governors meets once a year, whereas for routine decision-making and carrying on the ADB's lending and other operations, a ten-member Board of Directors has been constituted.

In April 1974 there came to be established a fund known as the Asian Development Fund. It is a multi-purpose fund, the proceeds of which are to be utilised for providing concessional loans to the relatively poorer member-countries of the ADB. Ten member-countries had subscribed 245.4 million US dollars to the Asian Development Fund by December 1974.

Lending Operations of the ADB

The ADB provides loans to its member-countries keeping in view the following considerations:

- (1) Larger portions of ADB loans should be given to relatively poorer among developing countries in Asia;
- (2) The government of the borrowing country has approved the loan by ADB being given to the private or public sector enterprise;
- (3) The Chairman of ADB has received a detailed report of the project for which the ADB is to provide loan;
- (4) The ADB while giving loan also takes into consideration prospects of loans which the applicant may receive from other than ADB source.
- (5) Generally the ADB loans are to be used within the markets of member-countries for purchase of essential goods, etc; but the Board of Directors with a two-third majority can allow the ADB loan to be used in markets of non-member countries; and
- (6) The ADB will function strictly keeping in view the sound principles of banking.

During 1968-73 the ADB approved loans totalling (in terms of US dollars) 1376 million US dollars to 21 countries for 189 projects. Of these, industrial development projects were given a quarter of the total loans; 24% of loans were given for development of transport and communication projects; 26.5 % for electrical power projects; 12.5% for agricultural development projects; 11.2% for water supply projects and 1 % for educational projects.

During 1974 the ADB sanctioned loans worth (in terms of US dollars) 547.7 million of which 186.9 million were for industrial development projects; 134 million for agricultural development projects; 76.55 million for power projects; and 81.5 million for transport and communication projects. There appeared an evident shift in the sectoral allocation of ADB's lending policy in 1974.

If the period of 1968-74 is considered, of the total loans approved, 17.5 % were given to South Korea; 12.5 % to the Phillipines; 10.63 % to Malaysia; 9.4% to the Republic of China; and 8.5 % to Singapore. This means that more than 50 % of the total loans sanctioned were given during this period to East Asian countries-India did not ask for any loan during this period; but Bangladesh received 9.5 % of the total loans during this period. The ADB charges $8\frac{1}{4}$ % interest on its loans, though at the time of its establishment the rate of interest charged was 6.78% which was raised to $7\frac{1}{2}$ % in May 1970 and to $8\frac{1}{4}$ % in September 1974.

Self Assessment Questions

1. What is Global Depository Receipt (GDR)?
2. What are the requirements for issuing GDR?
3. What are the different varieties of Global Market Debt Instrument?
4. What is Eurobonds? what are its feature?
5. What are the objectives of International Monetary Fund (IMF)?
6. What are the objectives and functions of Asian Development Bank (ADB)?

UNIT – V

Unit Structure

- Lesson 5.1 - Comparison of domestic, foreign and euro markets
- Lesson 5.2 - Hedging & Speculation
- Lesson 5.3 - Lending and Investment
- Lesson 5.4 - Forex Risk and euro currency markets for Lending & Investment
- Lesson 5.5 - Interest Rate Parity Theory

Lesson 5.1 - Comparison of Domestic, Foreign and Euro Markets

Learning Objective

After you going through this lesson, you should be able to:

- Know the meaning and comparison of domestic, foreign and euro markets.
- Understand the different market structures for global exposure.

Foreign Exchange Market

The foreign exchange market is the market in which currencies are bought and sold against each other. It is the largest market in the world. The most recent Bank of International Settlement survey stated that over USD\$ 900 billion were traded worldwide each day. During peak volume periods, this figure can reach up wards of USD\$1.8 trillion per day. This corresponds to 160(!) times the daily volume of the NYSE. Bulk of this is accounted for by a small number of currencies—the US dollar, Euro, Yen, Pound Sterling, Swiss franc, Canadian dollar, and Australian dollar. Prior to the introduction of Euro in 1999, Deutschemark held an important position.

For the month of April 2004, the survey of foreign exchange market activity carried out by the Bank for International Settlements (BIS) reported the following currency pair

wise breakup of all foreign exchange transactions around the world excluding inter-dealer trades:

USD/EURO: 31.82% USD/YEN: 18.81% USD/POUND: 15.56%

USD/SWISS FRANC: 4.97% USD/CANADIAN DOLLAR: 4.52%

USD/AUSTRALIAN DOLLAR: 5.7 1% USD/All Others: 18.61%

The same survey reported the following breakup for rupee-foreign currency transactions in the Indian market:

Rs/USD: 96.23% Rs/EURO: 0.86% Rs/YEN: 2.08%

Rs/POUND: 0.68% Rs/All Others: 0.15%

The foreign exchange market is an over-the-counter market. This means that there is no single physical or electronic market place or an organized exchange (like a stock exchange) with a central trade clearing mechanism where traders meet and exchange currencies. The market itself is actually a worldwide network of inter-bank traders, consisting primarily of banks, connected by telephone lines and computers. While a large part of interbank trading takes place with electronic trading systems such as Reuters Dealing 2000 and Electronic Broking Systems, banks and large commercial i.e. corporate customers still use the telephone to negotiate prices and consummate the deal.

After the transaction, the resulting market bid/ask price is then fed into computer terminals provided by official market reporting service companies (networks such as Reuters®, Bridge Information Systems®, Telerate®). The prices displayed on official quote screens reflect one of maybe dozens of simultaneous deals' that took place at any given moment. New technologies such as the Interpreter 6000 Voice Recognition System—VRS—which allows forex traders to enter orders using spoken commands, are presently being tested and may be widely adopted by the inter-bank community in the years to come. Online trading systems have also been devised and may become the norm in the near future. However, for corporate customers of banks, dealing on the telephone will continue to be an important channel.

Geographically, the markets span all the time zones from New Zealand to the West Coast of the United States. When it is 3.00 p.m. in Tokyo it is 2.00 p.m. in Hong Kong. When it is 3.00 p.m. in Hong Kong it is 1.00 p.m. in Singapore. At 3.00 p.m. in Singapore it is 12.00 noon in Bahrain. When it is 3.00 p.m. in Bahrain it is noon in Frankfurt and Zurich and 11.00 am. in London. 3.00 p.m. in London is 10.00 am, in New York. By the time New York is starting to wind down at 3.00 p.m. it is noon in Los Angeles. By the time

it is 3.00 p.m. in Los Angeles it is 9.00 am of the next day in Sydney. The gap between New York closing and Tokyo opening is about 21/2 hours. Thus the market functions virtually 24 hours enabling a trader to offset a position created in one market using another market. The five major centers of interbank currency trading, which handle more than two thirds of all forex transactions, are London, New York, Tokyo, Zurich, and Frankfurt. Transactions in Hong Kong, Singapore, Paris and Sydney account for bulk of the rest of the market.

Structure of the Foreign Exchange Market

Some of us are familiar with the retail market in foreign exchange. This is the market in which travelers and tourists exchange one currency for another in the form of currency notes or 'travelers' cheques. The total turnover and average transaction size are very small. The spread between buying and selling prices is large.

The market referred to in Section I of this chapter is the wholesale market, often called the interbank market. The major categories of participants in this market are commercial banks, investment institutions, non-financial corporations and central banks. The average transaction size is very large. For example, the average transaction in the US market was reported to be 4 million dollars with many transactions being of much larger size.

Among the participants in this market, primary price makers or professional dealers make a two-way market to each other and to their clients i.e. on request they will quote a two-way price—a price to buy currency X against Y and a price to sell X against Y, and be prepared to take either the buy or the sell side. This group includes mainly commercial banks but some large investment dealers and a few large corporations have also assumed the role of primary dealers. Primary price makers perform an important role in taking positions off the hands of another dealer or corporate customer and then offsetting these by doing an opposite deal with another entity which has a matching requirement.

Thus a primary dealer will sell US dollars against Rupees to one corporate customer, carry the position for a while and offset it by buying US dollars against Rupees from another customer or professional dealer. In the meanwhile if the price has moved against the dealer he bears the loss. For instance, he might have agreed to buy Rupees i.e. sell dollars at a rate ₹ 43.85 per dollar: by the time he covers his position, the market may have moved so that he must acquire the dollars i.e. sell rupees at a price of ₹ 44.05 per dollar. If the transaction is for 1 million, he loses ₹ 50,000 rupees. The difference between the buying and selling prices—the so-called "bid-offer spread"—provides a cushion against such losses. During times of high volatility the spread tends to widen.

In addition, of course the spread allows banks to recover the costs of the dealing function and make a profit. In fact, for many banks forex dealing makes a substantial contribution to their bottom lines.

Among the primary price makers there is a kind of layering or a pyramid. A few giant multinational banks deal in a large number of currencies, in large amounts and often deal directly with each other without using brokers. Their transactions can have significant influence on the market. In the second tier are large banks which deal in a smaller number of currencies and use the services of brokers more often.

Lastly, there are small local institutions which make market in a very small number of major currencies against their home currency. For instance in Mumbai, State Bank of India may make a market in say half a dozen currencies while most other banks will deal mostly only in US dollars and Euro. Many of the latter may have almost 100% of their deals in US dollars versus Rupee.

In the retail market there are entities that quote foreign exchange rates but do not make a two way market. They are secondary price makers. Restaurants, hotels, shops catering to tourists buy foreign currency in payment of bills: some entities specialize in retail business for travelers and buy and sell foreign currencies and travelers' cheques. Typically their bid-ask spreads are much wider than those of primary price makers.

Foreign currency brokers act as middlemen between two market makers. Their main function is to provide information to market making banks about prices at which there are firm buyers and sellers in a pair of currencies. A bank indicates its willingness to buy or sell a specific amount of currency X against currency Y at a specific price or give a price limit. The broker transmits this information to a group of his clients via dedicated phone lines and collects a commission on consummation of the deal. Till a deal is struck, the identities of the various parties transmitting their orders to the broker are not revealed. Banks may also use brokers to acquire information about the general state of the market even when they do not have a specific deal in mind. Primary price makers may use brokers to "show" their prices to the market anonymously. By specializing in certain pairs of currencies and maintaining constant contact with market makers brokers tend to possess much more information than the dealers themselves. The important thing is brokers do not buy or sell on their own account.

Finally, there are price takers who take the prices quoted by primary price makers and buy or sell currencies for their own purposes but do not make a market themselves. Corporations use the foreign exchange market for a variety of purposes related to their

operations. Among these are payments for imports, conversion of export receipts, hedging of receivables and payables, payment of interest on foreign currency loans, placement of surplus funds and so forth. Many companies, as a matter of policy, restrict their participation in the market to transactions arising out of their business of producing and selling goods and services. They do not take active positions in the market to profit from exchange rate fluctuations.

Others, mainly giant multinationals, utilize their considerable financial expertise to take positions purely with the intention of generating financial profits from exchange rate movements.

Central banks intervene in the market from time to time to attempt to move exchange rates in a particular direction or moderate excessive fluctuations in the exchange rate. In the case of limited flexibility systems like the EMS which existed before the EMU came into being, or a fixed exchange rate system, these interventions are obligatory and, when intervention limits are reached, potentially unlimited. In other cases, though there is no commitment to defend any particular rate, a central bank may still intervene to influence market sentiment.

Of the total volume of transactions, about two-thirds is accounted for by interbank transactions and the rest by transactions between banks and their non-bank customers. This is implicit in the total turnover figure mentioned above which is nearly ten times the value of world trade in goods and services.

Thus foreign exchange flows arising out of cross border exchanges of goods and services account for a very small proportion of the turnover in the foreign exchange market.

There is no distinct class of “speculators” in the foreign exchange market. Price making banks often carry uncovered positions to profit from exchange rate movements; so do corporations who have extensive foreign currency dealings arising out of their operations. Financial and non-financial corporations, hedge fund managers and even governments through their central banks often seek to derive gains out of exchange rate movements by investing in assets denominated in currencies which they think are going to appreciate. It is very difficult to demarcate speculation from prudent business decisions.

A non-financial corporation which does not hedge its foreign currency export receivable or import payable is as much a speculator as a fund manager who moves funds out of one currency into another to profit from appreciation of the latter currency.

Types of Transactions and Settlement Dates

Settlement of a transaction takes place by transfers of deposits between the two parties. The day on which these transfers are affected is called the settlement date or the value date. Obviously, to affect the transfers, banks in the countries of the two currencies involved must be open for business. The relevant countries are called settlement locations. The locations of the two banks involved in the trade are dealing locations which need not be the same as settlement locations.

Thus a London bank can sell Swiss francs against US dollar to a Paris bank. Settlement locations may be New York and Geneva, while dealing locations are London and Paris. The transaction can be settled only on a day on which both US and Swiss banks are open.

Depending upon the time elapsed between the transaction date and the settlement date, foreign exchange transactions can be categorized into spot and forward transactions. A third category called swaps is combination of a spot and a forward transaction (or a forward-forward swap i.e. a combination of two forward transactions).

In a spot transaction the settlement or value date is usually two business days ahead for European currencies and Asian currencies traded against the dollar. Thus if a London bank sells yen against dollar to a Paris bank on Monday, the London bank will turn over a yen deposit to the Paris bank on Wednesday and the Paris bank will transfer a dollar deposit to the London bank on the same day. If State Bank of India sells dollars against Rupees to HDFC bank on a Tuesday, on the following Thursday SBI will turn over a dollar deposit to HDFC and HDFC will turn over a rupee deposit to SBI. The time gap is necessary for confirming and clearing the deal through the communication network such as SWIFT. (Note that by the two business days ahead rule, deals done on a Thursday will be cleared the following Monday, while deals done on Friday will have Tuesday of the following week as the value date if, Saturday and Sunday are bank holidays as they are in most financial centers).

To reduce credit risk (i.e. one of the parties failing to deliver on its side of the trade), both transfers should take place on the same day. In the Dollar—Yen trade between the London and Paris banks done on Monday, if the following Wednesday happens to be a bank holiday in either Japan or US, the value date is shifted to the next available business day, in this case Thursday. What about holidays in the dealing locations? If Wednesday is a holiday in either UK or France, settlement is again postponed to Thursday. What if Tuesday is a holiday in UK but not in France? Then “two business days” would mean Wednesday for the Paris bank but Thursday for the London bank. In such cases the normal practice is, if the

Paris bank “made the market” i.e. the London bank called for a quote, the value date would be Wednesday while if London made the market it would be Thursday. The settlement time is reduced to one business day for trades between currency pairs such as the US dollar and Canadian dollar and US dollar and Mexican peso.

Having understood value dates for spot transactions, let us look at value dates for forward transactions. In a 1-month (or 30 day) forward purchase of say pounds against rupees, the rate of exchange is fixed on the transaction date; the value date is arrived at as follows: first find the value date for a spot transaction between the same currencies done on the same day and then add one calendar month to arrive at the value date. Thus for a one month forward transaction entered into on say June 20, the corresponding spot value date is June 22 and one month forward value date is July 22, two months forward would be August 22 and so on. Standard forward contract maturities are 1 week, 2 weeks, 1, 2, 3, 6, 9, and 12 months.

The value dates are obtained by adding the relevant number of calendar months to the appropriate spot value date. If the value date arrived at in such a manner is ineligible because of bank holidays, then like in a spot deal, it is shifted forward to the next eligible business day. However, there is one important difference viz, rolling forward must not take you into the next calendar month, in which case you must shift backward. Thus suppose a 3-month forward deal is done on November 26. The spot date is November 28. Adding three calendar months takes you to February 28. If February 28 is ineligible, you cannot shift forward because that goes into March (assuming it is not a leap year). It must be rolled back to February 27.

Though standard forward maturities are in whole number of months, banks routinely offer forward contracts for maturities which are not whole months. Thus a corporation can enter into a forward contract for delivery say 73 days from the date of transaction. Such contracts are called “broken date” or “odd date” contracts. For some currency pairs, long dated forward contracts with maturities extending out to five years are available.

A swap transaction in the foreign exchange market is a combination of a spot and a forward in the opposite direction. Thus, a bank will buy Euros spot against US dollar and simultaneously enter into a forward transaction with the same counterparty to sell Euros against US dollar. A spot 60-day Dollar—Euro swap will consist of a spot purchase (sale) of dollars against the euro coupled with a 60day forward sale (purchase) of dollar against euro. When both the transactions are forward transactions, we have a forward- forward swap. Thus a 1—3 month dollar—sterling swap will consist of purchase (sale) of sterling versus dollars one month forward coupled with a sale (purchase) of sterling versus dollars three

months forward. The uses of spot-forward and forward-forward swaps are discussed in the next chapter. As the term “swap” implies, it is a temporary exchange of one currency for another with an obligation to reverse it at a specific future date. Forward contracts without an accompanying spot deal are known as “outright forward contracts” to distinguish them from swaps.

It has been estimated that about 40% of the turnover in the market is in the spot segment, 50% in swaps and the rest in outright forward contracts. Outright forwards are most often used by corporations to cover their transactions exposures.

Short date transactions are transactions which call for settlement before the spot date. “Cash” transactions are for settlement same day while some deals will involve settlements “tomorrow” i.e. one business day ahead when a spot deal would be settled two business days later.

Exchange Rate Quotations and Arbitrage

An exchange rate between currencies A and B is simply the price of one in terms of the other. It can be stated either as units of B per unit of A or units of A per unit of B. In stating prices of goods and services in terms of money, the most natural format is to state them as units of money per unit of the good—rupees per litre (or per gallon or whatever) of milk—rather than as units of a good per unit of money. When it is two monies, either way would be equally natural. The choice of a “unit” is also a matter of convenience. (Price of rice is given in rupees per kilogram in the retail market and rupees per quintal in wholesale markets).

Before proceeding let us clarify the way we will designate the various currencies in this book. The International Standards Organization has developed three letter codes for all the currencies which abbreviate the name of the country as well as the currency. These codes are used by the SWIFT network which affects inter-bank funds transfers. Depending upon the context we will either use the full name of a currency such as US dollar, Swiss franc, Pound sterling, etc. or the ISO code. A complete list of ISO codes is given at the end of this book. Given below are the codes for selected currencies which will be frequently used in the various examples.

USD: US Dollar	EUR: Euro
GBP: British Pound	IEP: Irish Pound (Punt)
JPY: Japanese Yen	CHF: Swiss Franc
CAD: Canadian Dollar	AUD: Australian Dollar

SEK: Swedish Kroner MEP: Mexican Peso
DKK: Danish Kroner NZD: New Zealand Dollar
INR: Indian Rupee SAR: Saudi Riyal

Further, unless otherwise stated, “Dollar” will always mean the US dollar; “pound” or “sterling” will always denote the British pound sterling and “rupee” will invariably mean the Indian rupee. We will frequently use just the symbols “\$”, “i” and “v” to designate the USD, the GBP and the JPY respectively.

Spot Rate Quotations

In foreign exchange literature one comes across a variety of terminology which can occasionally lead to unnecessary confusion about simple matters. You will hear about quotations in European Terms and quotations in American Terms. The former are quotes given as number of units of a currency per US dollar. Thus EUR 1.0275 per USD, CHF 1.4500 per USD, INR 46.75 per USD are quotes in European terms. Quotes in American terms are given as number of US dollars per unit of a currency.

Thus USD 0.4575 per CHF, USD 1.3542 per GBP are quotes in American terms. The prevalence of this terminology is due to the common practice mentioned above of quoting all exchange rates against the dollar.

You will occasionally come across terminology such as direct quotes and indirect quotes. (The latter are also called reciprocal or inverse quotes). In any country, direct quotes are those that give units of the currency of that country per unit of a foreign currency.

Thus INR 46.00 per USD is a direct quote in India and USD 0.98 10 per EUR is a direct quote in the US. Indirect or reciprocal quotes are stated as number of units of a foreign currency per unit of the home currency. Thus USD 2.2560 per INR 100 is an indirect quote in India. Notice here that the “unit” for rupees is 100s. Similarly, for currencies like Japanese Yen, Indonesian Rupiah, quotations may be in terms of 100 yen or 100 Rupiah. (The reason is otherwise we will have to deal with very small numbers). The notational confusion can get further compounded when we have to deal with two-way, bid-ask quotes for each exchange rate.

The Mechanics of Inter-Bank Trading

As discussed above the main actors in the forex markets are the primary market makers who trade on their own account and make a two-way bid-offer market. They deal

actively and continuously with each other and with their clients, central banks and sometimes with currency brokers. In the process of dealing, they shift around their quotes, actively take positions, offset positions taken earlier or roll them forward. Their performance is evaluated on the basis of the amount of profit their activities yield and whether they are operating within the risk parameters established by the management. It is a high tension business which requires an alert mind, quick reflexes and the ability to keep one's cool under pressure.

The purpose of this section is to briefly outline the mechanics of actual currency trading as practiced by the primary market makers. We wish to give the reader a flavour of the various dimensions involved in operating in this huge, fast changing and often extremely volatile global market. For more details the reader can consult specialist texts such as Bishop and Dixon (1992), Luca (1995), Roth (1996) and Taylor (1997). Even then, keep in mind that the only way to learn all the intricacies of forex dealing is to actually do it.

Inter-bank dealing. We have said that primary dealers quote two-way prices and are willing to deal on either side i.e. buy or sell the base currency upto conventional amounts at those prices. However, in inter-bank markets, this is a matter of mutual accommodation. A dealer will be shown a two-way quote only if he or she extends that privilege to fellow dealers when they call for a quote. Communications between dealers tend to be very terse. A typical spot transaction would be dealt as follows:

Monday, September 21 10.45 am

BANK A: "Bank A calling. DLR—CHF 25 please.

BANK B: "Forty—Forty-five"

(Bank B is specifying a two-way price—the price at which it will buy a US dollar against Swiss franc and the price at which it is willing to sell a US dollar. Knowing that the caller is also a forex dealer, the dealer in Bank B quotes only the last two decimals of the full quotation. For instance the full quotation might be 1.5540/1.5545. Bank B will pay CHF 1.5540, its "bid rate", when it buys a dollar and will want to be paid CHF 1.5545. Its "ask rate" when it sells a dollar.

The last two decimals amount to hundredths of a hundredth and are called "points" or "pips" in the forex jargon. The difference between the selling and buying price 0.0005 or 5 "pips" is the bid-ask spread. If the caller had been a corporate customer, the dealer would have given the full quote.)

BANK A: "Mine"

(Bank A dealer finds bank B's price acceptable and wishes to buy USD 25 million. She conveys this by saying "mine" i.e. "I buy the specified quantity at your specified price". If she wished to sell, she might have said "Yours".)

BANK B: OK. I sell you USD25 million against CHF at 1.5545 value 23 September. UBS Geneva for my CHF.

(Bank B confirms the quantity, price and settlement date, It also specifies where it would like its CHF to be transferred.)

BANK A: CITIBANK NYK for my dollars. Thanks & Bye

Bank B has been "hit on it's ask side" i.e. the caller, bank A wished to buy dollars.

When a dealer A calls another dealer B and asks for a quote between a pair of currencies, dealer B may or may not wish to take on the resulting position on his own books. If he does, he will quote a price based on his information about the current market and the anticipated trends and take the deal on his own books. This is known as "warehousing the deal". If he does not wish to warehouse the deal, he will immediately call a dealer C, get his quote and show that quote to A. If A does a deal, B will immediately offset it with C. This is known as "back-to-back" dealing. Normally, back-to-back deals are done when the client asks for a quote on a currency which the dealer does not actively trade.

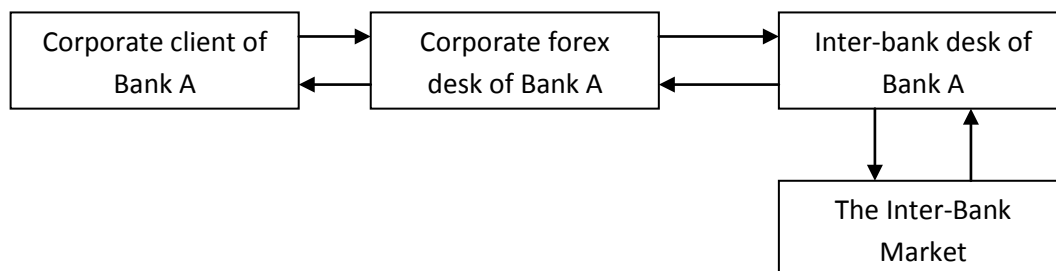
These days in the inter-bank market deals are mostly done with computerized dealing systems such as Reuters. Real time information on exchange rates is provided by a number of information services including Reuters, Bridge, and Bloorberg.

Since most of the trading takes place between market making banks, it is a zero-sum game i.e. gains made by one trader are reflected in losses made by another. However, when central banks intervene, it is possible for banks as a group to gain or lose at the expense of the central bank.

For dealing with their corporate customers, banks have corporate dealers who are the contact points for the bank's corporate customers. A corporate treasurer who needs to buy or sell foreign currency or just get a feel for the market would contact a corporate dealer probably on the phone and ask for a quotation. The corporate dealer will in turn request the bank's inter-bank dealer on the appropriate "desk" to provide a rate quotation which will be transmitted back to the corporate client. Corporate dealers are generally not allowed to carry positions; they must pass the positions to the appropriate inter-bank desk.

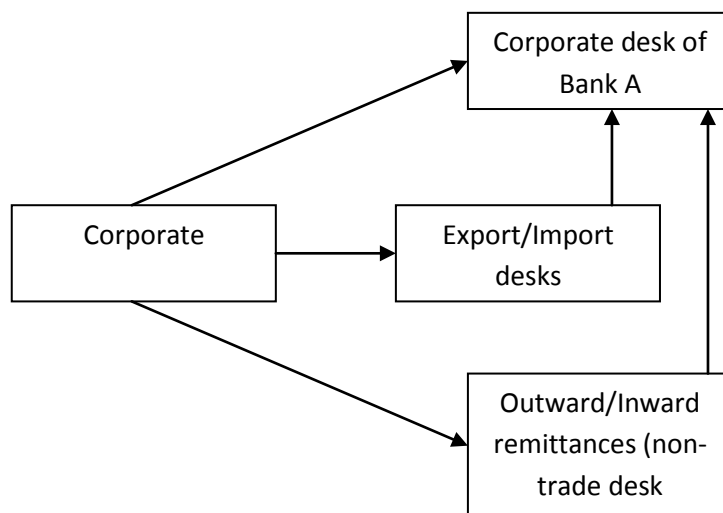
Exhibit 1 shows a schematic picture of corporate transactions with the bank. For trade related purchases and sales, or other inward or outward forex remittances corporate clients would contact import/export desks or non-trade remittance desks who in turn contact the corporate forex dealer as shown in Exhibit (i).

Exhibit (i)



Bulk of the trading in convertible currencies takes place against the US dollar. Thus quotations for Euro, Swiss francs, Yen, Pound Sterling, etc. will be commonly given against the US dollar. If a corporate customer wants to buy or sell Yen against Swiss franc, a cross-rate will be worked out from the USD/CHF and USD/JPY quotation as explained in a later section. One reason for using a common currency (called the “vehicle currency”) for all quotations is to economize on the number of quotations. If n currencies are being traded, having a quote for each pair will require $n(n-1)/2$ exchange rates.

Exhibit (ii)



With 10 currencies, 45 two-way quotes will be needed. By using a common currency to quote against, the number is reduced to 9 or, in general, $(n - 1)$.

Also, by this means the possibility of triangular arbitrage (see below) is minimized. However, some banks specialize in giving these so-called cross rates. As we will see below,

they can operate with a smaller bid-ask spread provided there is sufficient turnover of business in the currency pair concerned.

In an ordinary foreign exchange transaction, no fees are charged. The bid-ask spread itself is the transaction cost. Also, unlike the money or capital markets, where different rates of interest are charged to different borrowers depending on their creditworthiness, in the wholesale foreign exchange market no such distinction is made. Default risk—the possibility that the counter-party in a transaction may not deliver on its side of the deal—is handled by prescribing limits on the size of positions a trader can take with different corporate customers. In some cases, a bank may decline to do a deal with a corporation (or even other bank) if it cannot assess the latter's credit risk.

Communications pertaining to international financial transactions are handled mainly by a large network called Society for Worldwide Inter-bank Financial Telecommunication (SWIFT). This is a non-profit Belgian cooperative with main and regional centers around the world connected by data transmission lines. Depending on the location, a bank can access a regional processor or a main center which then transmits the bank's instructions and any relevant information to the appropriate location.

Banks sometimes employ services of a currency broker to execute a deal. The main advantage of dealing through a broker is anonymity. A bank dealer can “show” his or her prices to the market without revealing the identity of the bank. A broker receives orders from many clients who specify the prices at which they are willing to buy or sell a currency and the amounts. Normally these are “limit” prices i.e. a bank will specify the highest price it is willing to pay to buy a currency or the lowest price at which it is willing to sell a currency. From among these, the broker will announce the highest buying price (highest bid) and lowest selling price (lowest offer) to all his clients without revealing the identity of the parties who are willing to deal at those prices. A client wanting to buy a currency can accept the best offer price currently available. “Join the queue” at the best bid price currently shown or “improve” upon the highest bid currently shown. Thus suppose a broker has conveyed the best GBP/USD bid as 1.5665 and best offer as 1.5680. If a dealer wishes to buy GBP, he can

- (a) Accept the offer price of 1.5680. This guarantees immediate execution.
- (b) Or he can join the bid at 1.5665. His order will get priority after all earlier bids at that price have been processed.
- (c) Or he can improve the bid to 1.5670. This has better chance of execution. In recent times electronic broking has been gradually replacing the traditional “voice” brokerage services.

Arbitrage in Spot Markets

Arbitraging between banks: Though one often hears the term “market rate”, but it is not true that all banks will have identical quotations for a given pair of currencies at a given point of time.

The rates will be close to each other but it may be possible for a corporate customer to save some money by shopping around. Let us explore the possible relationships between quotes offered by different banks.

1. Suppose banks A and B are quoting:

	A	B
GBP/USD:	1.4550/1.4560	1.4538/1.4548

We will represent this as:

• _____	• Bank A
bid	ask
• _____	• Bank B
bid	ask

Obviously such a situation gives rise to an arbitrage opportunity. Pounds can be bought from B at \$1.4548 and sold to A at \$1.4550 for a net profit of \$00002 per pound without any risk or commitment of capital. One of the basic tenets of modern finance is that markets are efficient and such arbitrage opportunities will be quickly spotted and exploited by alert traders.

The result will be, bank B will have to raise its ask rate and/or A will have to lower its bid rate. The arbitrage opportunity will disappear very fast. In fact, in the presence of profit-hungry arbitrageurs, such an opportunity will rarely emerge in the first place.

2. Now suppose the quotes are as follows:

	A	B
GBP/USD:	1.4550/1.4560	1.4545/1.4555

These can be represented as:

• _____	A
• _____	B

Thus the two quotes must overlap to prevent arbitrage. However, now bank A will find that it is “being hit” on its bid side much more often i.e. it will be faced with many more sellers of pound sterling than buyers while B will find that it is confronted largely with buyers of pound sterling and few sellers.

From time to time, a bank may deliberately move its quote in a fashion designed to discourage one type of deal and encourage the opposite deal. Thus bank A may have built a large net short position in sterling and may now want to encourage sellers of pound and discourage buyers. Bank B may be in a reverse position; it wants to encourage buyers and discourage sellers of sterling. Thus regular clients of bank A wanting to buy pounds can save some money by going to B and vice versa.

In practice, most corporations will not shop around to make a gain of a few points unless the amount involved is very large. Customers who flit from bank to bank in search of tiny savings often find that when it comes to executing a complex transaction, no bank is willing to give them the kind of service that it would give to its more ‘loyal’ customers. Also, even in routine foreign exchange transactions, regular customers get better rates. Nevertheless, it is a good idea to do some comparison shopping from time to time to keep the bank on its toes.

Inverse quotes and two-point arbitrage Consider the spot quotation:

USD/CHF: 1.4955/1.4962

Suppose this is a quote available from a bank in Zurich. At the same time, a bank in New York is offering the following spot quote:

CHF/USD: 0.6695/0.6699

Is there an arbitrage opportunity? Suppose we buy one million Swiss francs against dollars from the Zurich bank and sell them to the New York bank. The Zurich Bank will give CHF 1.4955 for every dollar it buys. It will cost us $\$(1,000,000/1.4955)$ i.e. \$6,68,700 to acquire the Swiss francs.

In New York, the bank will give \$0.6695 for every CHF it purchases. Thus CHF 1 million can be sold to the New York bank for $\$(0.6695 \times 1,000,000)$ i.e. \$6,69,500. We can make a riskless profit of \$800 with a couple of phone calls! Obviously, the CHF/USD rates implied by the Swiss bank’s USD/CHF quotes and the New York bank’s CHF /USD quotes are out of line.

Recall that $(\text{CHF}/\text{USD})_{\text{ask}}$ is the rate that applies when the bank sells Swiss francs in exchange for dollars. But this is precisely the deal we did with the Zurich bank and for each Swiss franc we bought we had to pay $\$(1/1.4955)$ which is nothing but $1/(\text{USD}/\text{CHF})_{\text{bid}}$.

In the same way, the $(\text{CHF}/\text{USD})_{\text{bid}}$ implied by the Swiss bank's USD/CHF quotes is $1/(\text{USD}/\text{CHF})_{\text{ask}}$. Thus we have

$$\text{Implied } (\text{CHF}/\text{USD})_{\text{bid}} = 1/(\text{USD}/\text{CHF})_{\text{ask}}$$

$$\text{Implied } (\text{CHF}/\text{USD})_{\text{ask}} = 1/(\text{USD}/\text{CHF})_{\text{bid}}$$

To prevent arbitrage, the New York bank's (CHF/USD) quotes must overlap the (CHF/USD) quotes implied by the Swiss bank's quotes. The latter work out to 0.6684/0.6687. A CHF/USD quote such as 0.6686/0.6690 will not lead to arbitrage though it may lead to a one-way market for the banks. The rates actually found in the markets will obey the above relations to a very close approximation.

The arbitrage transaction described above viz, buying a currency in one market and selling it at a higher price in another market is called "Two-Point Arbitrage". Foreign exchange markets very quickly eliminate two-point arbitrage opportunities if and when they arise.

Cross-rates and three-point arbitrage A New York bank is currently offering these spot quotes:

USD/JPY: 110.25/111.10

USD/AUD: 1.6520/1.6530

At the same time, a bank in Sydney is quoting:

AUD/JPY: 68.30/69.00

Is there an arbitrage opportunity? Consider this sequence of transactions:

- (1) Sell Yen, buy US dollars and then sell US dollars and buy Australian dollars. Do both these transactions in New York and
- (2) Sell the Australian dollars for Yen in Sydney. The calculations are:

(Subscripts N and S denote rates in New York and Sydney respectively)

1 Yen sold in New York gets US\$ $\{1/(\text{USD/JPY})_{\text{ask}(N)}\} = \text{US}\$(1/111.10)$

US\$ $\{1/(\text{USD/JPY})_{\text{ask}(N)}\}$ sold against AUD gets AUD $\{[1/(\text{USD/JPY})_{\text{ask}(N)}] (\text{USD/AUD}_{\text{bid}(N)})\} = \text{AUD } (1/111.10)(1.6520)$

And finally the amount of Yen obtained by selling AUD in Sydney is

$$\begin{aligned} & \text{¥}\{[1/(\text{USD/JPY})_{\text{ask}(N)}] (\text{USD/AUD})_{\text{bid}(N)} (\text{AUD/JPY}_{\text{bid}(S)})\} \\ & = \text{¥ } (1/111.10)(1.6520)(68.30) = \text{¥}1.0156 \end{aligned}$$

A risk-less profit of ¥0.0156 per Yen. On a 100 million Yen, that implies a profit of 1.56 million Yen, and 100 million Yen is considerably less than the average size of transactions in the inter-bank market in a trading center like New York.

Once again, the reason is that the AUD/JPY cross-rate implied by the USD/JPY and USD/AUD rates in New York is out of line with the direct AUD/JPY rate quoted by the Sydney bank. No arbitrage condition requires:

$$\frac{1}{(\text{USD/JPY})_{\text{ask}(N)}} \times (\text{USD/AUD})_{\text{bid}(N)} \times (\text{AUD/JPY})_{\text{bid}(S)} \leq 1 \quad (\text{i})$$

(Here we have added the subscripts (N) and (S) to denote rates in New York and Sydney respectively. The reason for this will become apparent shortly.)

In other words

$$(\text{AUD/JPY})_{\text{bid}(S)} \leq \frac{(\text{USD/JPY})_{\text{ask}(N)}}{(\text{USD/JPY})_{\text{bid}(N)}} \quad (\text{ii})$$

But recall from our discussion of inverse rates that

$$[1/(\text{USD/AUD})_{\text{bid}(N)}] = (\text{AUD/USD})_{\text{ask}(N)}$$

Hence inequality (ii) implies

$$(\text{AUD/JPY})_{\text{bid}(S)} \leq (\text{USD/JPY})_{\text{ask}(N)} \times (\text{AUD/USD})_{\text{ask}(N)} \quad (\text{iii})$$

Now consider arbitrage in the reverse direction. Take a USD, buy Yen in New York, sell Yen for AUD in Sydney and sell AUD for USD in New York. No arbitrage profit condition means that you should not end up with more than one dollar. This implies

$$(\text{USD/JPY})_{\text{bid(N)}} \times \frac{1}{(\text{AUD/JPY})_{\text{ask(S)}}} \times \frac{1}{(\text{USD/JPY})_{\text{ask(N)}}} \leq 1 \quad (\text{iv})$$

Recall once again that

$$1/(\text{USD/AUD})_{\text{ask(N)}} = (\text{AUD/USD})_{\text{bid(N)}}$$

So that equation (iv) can be rewritten as

$$(\text{AUD/JPY})_{\text{ask(S)}} \leq (\text{USD/JPY})_{\text{bid(N)}} \times (\text{AUD/USD})_{\text{bid(N)}} \quad (\text{v})$$

Instead of New York and Sydney we could simply have imagined two banks quoting Yen versus AUD, one giving rates directly while the other giving the rates derived from the USD/JPY and USD/AUD rates. The no arbitrage conditions (iii) and (v) simply give us upper and lower bounds on the direct rates in terms of the synthetic rates. To understand this clearly let us see how a synthetic pair of AUD/JPY quotes is derived.

The synthetic (AUD/JPY)_{bid} refers to a transaction in which the bank ends up with AUD and the customer with JPY. This can be viewed as the end result of two transactions:

1. In step one, the customer sells AUD and buys USD.
2. In step two, the customer sells USD acquired in step one and gets JPY.

Starting with AUD 1, the customer will get USD $[1/(\text{USD/AUD})_{\text{ask}}]$ in step one; in exchange for this, in step two, the customer will get:

$$\yen \{ [1/(\text{USD/AUD})_{\text{ask}}] \times (\text{USD/JPY})_{\text{bid}} \}$$

Thus

$$\text{Synthetic (AUD/JPY)}_{\text{ask}} = (\text{USD/JPY})_{\text{ask}} \times (\text{AUD/USD})_{\text{ask}} \quad (\text{vi})$$

This works as if $\text{AUD/JPY} = (\text{USD/JPY}) \times (\text{AUD/USD})$

$$\text{Synthetic (AUD/JPY)}_{\text{ask}} = (\text{USD/JPY})_{\text{ask}} \times (\text{AUD/USD})_{\text{ask}} \quad (\text{vii})$$

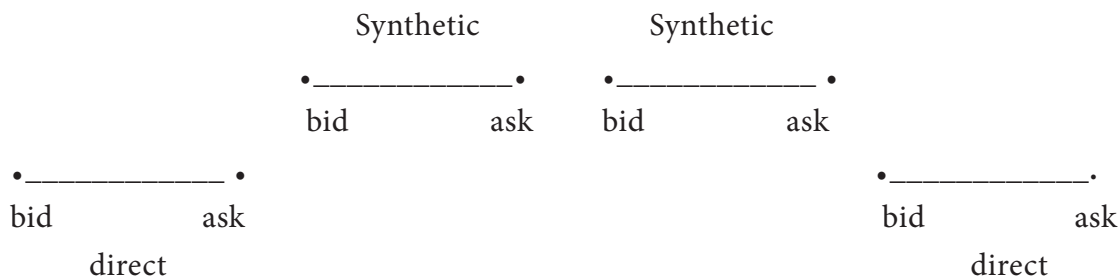
Now notice that the right hand side of (vi) is same as (v) and that of (vii) is identical to that of (iii).

Thus the no-arbitrage conditions say that

$$\text{Direct (AUD/JPY)}_{\text{bid}} \leq \text{Synthetic (AUD/JPY)}_{\text{ask}} \quad (\text{viii})$$

$$\text{Direct (AUD/JPY)}_{\text{ask}} \leq \text{Synthetic (AUD/JPY)}_{\text{bid}} \quad (\text{ix})$$

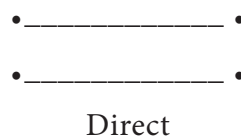
Diagrammatically, these inequalities mean that we cannot have either of the following situations:



This is a familiar condition. Whenever there are two sets of quotes for a pair of currencies, to prevent arbitrage they must overlap.

The term “three-point arbitrage” refers to the kind of transactions we described above. Start with currency A, sell it for B, sell B for C and finally sell C back for A ending up with more A than you began with. Efficient foreign exchange markets do not permit riskless arbitrage profits of this kind. This is an instance of the well known maxim in economics viz, there is no such thing as a free lunch.

Notice that the synthetic cross rates between any pair of currencies X and Y, calculated from the rates of these two currencies against a third currency Z, impose only lower and upper limits on the rates a bank which is directly making a market between X and Y may quote. In other words, a situation like the following is perfectly acceptable: Synthetic



In fact you must have realized that in computing the synthetic (GBP/CAD) rates, the bid-ask spreads in the (USD/CAD) and (GBP/USD) quotes are being compounded. A bank which specializes in making a CAD-GBP market can give direct quotes with narrower spread provided it has a sufficiently large volume of business in the two currencies.

Lesson 5. 2 - Hedging & Speculation

Learning Objective

After you going through this lesson, you should be able to:

- Know the meaning hedging and speculation.
- Understand the application of hedging and speculation in the global market.

Using the Forward Markets for Hedging Transactions Exposure

In the normal course of business, a firm will have several contractual exposures in various currencies maturing at various dates. The net exposure in a given currency at a given date is simply the difference between the total inflows and total outflows to be settled on that date. Thus suppose Fantasy Jewelry Co. has the following items outstanding:

Item		Value	Days to maturity
1.	USD receivable	800,000	60
2.	EUR payable	2,000,000	90
3.	USD interest payable	100,000	180
4.	USD payable	200,000	60
5.	USD purchased forward	300,000	60
6.	USD loan instalment due	250,000	60
7.	EUR purchased forward	1,000,000	90

Its net exposure in USD at 60 days is

$$(800,000 + 300,000) - (200,000 + 250,000) = + \text{USD } 650,000$$

Whereas, it has a net exposure in EUR of -1,000,000 at 90 days.

The use of forward contracts to hedge transactions exposure at a single date is quite straightforward. A contractual net inflow of foreign currency is sold forward and a contractual net outflow is bought forward. This removes all uncertainty regarding the

domestic currency value of the receivable or payable.’ Thus in the above example, to hedge the 60-day USD exposure Fantasy Jewelry Co. can sell forward USD 650,000 while for the EUR exposure it can buy EUR 1,000,000 90 days forward.

What about exposures at different dates? One obvious solution is to hedge each exposure separately with a forward sale or purchase contract as the case may be. Thus in the example, the firm can hedge the 60-day USD exposure with a forward sale and the 180-day USD exposure with a forward purchase. Is it possible to hedge multiple exposures in a given currency with a single forward contract? In the appendix we show that this can be done provided either interest rate for various maturities are known with certainty or contracts known as Forward Rate Agreements are available which permit a firm to lock in borrowing or lending rates for future periods.

The Cost of a Forward Hedge

An important and often misunderstood concept is that of cost of forward hedging. It is a common fallacy to claim that the cost of forward hedging is the forward discount or premium. (If the foreign currency is sold at a discount, the discount is claimed to be the “cost” of the hedge; if it is bought at a premium, the premium is regarded as the cost. On this view, premium gained on forward sale or discount obtained on forward purchase is a “negative cost” or a gain).

The genesis of this fallacy is in the accounting procedure used to record transactions denominated in foreign currency and for which a forward hedge is used. Suppose an Indian firm buys equipment worth Euro 1,000,000 from a German supplier on 90-day credit. The account payable is then valued at today’s spot rate which is say ₹ 52.50. The firm covers the payable with a 90-day forward purchase of Euros at a premium of say ₹ 0.20 i.e. the 90-day forward offer rate is ₹ 52.70 per Euro. The firm has to pay ₹ 52,700,000 to settle the payable valued at ₹ 52,500,000. In recording this transaction, the following entries are made:

A/C Payable	52,500,000
Forward Loss	200,000
Bank Account	52,700,000

Thus the premium paid is recorded as the cost of forward cover. By the same logic, if the Euro had been at a forward discount, cost of forward cover would have been negative. However, this is a conceptually erroneous way of interpreting cost of forward cover.

The point is, the forward hedge must be compared not with today’s spot rate but the

ex-ante value of the payable if the firm does not hedge. Since the latter is unknown today, the relevant comparison is between the forward rate and the expected spot rate on the day the transaction is to be settled. The expected cost of forward hedge for the above Indian firm is given by

$$F_{1/4}(\text{EUR/INR})_{\text{ask}} - S(\text{EUR/INR})_{\text{sk}}$$

Where the notation S denotes the “spot rate expected to rule 90-days from today”.

If speculators are risk neutral and there are no transaction costs, $F_{t,T} = S_{t,T}^e$

i.e., the forward rate at time t for transactions maturing at T equals the expectation at time t , of the spot rate at time T . In this case, the expected cost/gain from forward cover is zero.

What if the speculators in the foreign exchange market are not risk neutral? In this case we have

$$F_{t,T} > S_{t,T}^e \quad F_{t,T} < S_{t,T}^e$$

i.e., the former when speculators are on balance forward sellers and the latter when they are net forward buyers. The argument here is that speculators will demand a risk premium for assuming the risk of an uncertain future spot rate.

Even in this case the expected cost of hedging is zero. This is because the hedgers are passing on the risk to the speculators and the risk premium paid is the price of risk avoidance. The forward rate is the market’s certainty equivalent of the uncertain future spot rate. This can be understood as follows. Suppose the current USD/INR spot rate is 45.00 and the three month forward is 45.75. If you take an uncovered long position in the forward contract, you would gain—the bank which sells you the forward contract would lose—if the spot three months later turns out to be greater than 45.75 and you would lose—the bank would gain—if it turns out to be below 45.75. If the forward rate quoted by the bank is inordinately high, say ₹ 60, so that the probability of your gaining is very small, you would demand an upfront payment for taking a long position; similarly if it is ridiculously low, say ₹ 20, the probability of the short side gaining is very low and the bank would demand upfront compensation. The actual forward rate is such that risk adjusted gains equal risk adjusted losses so that the forward contract has zero value—neither the buyer nor the seller demands any payment at the initiation of the contract.

Hence presence of risk premium does not invalidate the contention that the expected cost of forward hedging is zero. Transaction costs are a different matter. As we have seen, the bid-ask spreads are generally wider in the forward segment than in the spot segment so that even if there is no risk premium

$$F_{t,T}(\text{EUR/INR})_{\text{ask}} > S_{t,T}(\text{EUR/INR})_{\text{ask}}$$

$$\text{and } F_{t,T}(\text{EUR/INR})_{\text{bid}} > S_{t,T}(\text{EUR/INR})_{\text{bid}}$$

Thus the only cost of a forward hedge is the larger spread in the forward market compared to the spot market. The extent of the difference depends on the relative depth of the two markets. For transactions between the major convertible currencies, the short-maturity forward markets are nearly as deep as the spot markets and the difference in spreads tends to be quite small.

The accounting problem mentioned above arises because the invoice amount is converted into domestic currency at today's spot rate. The correct procedure is to use the forward rate for this purpose.

It must be emphasized that forward hedging of contractual exposures does not stabilize a firm's cash flows. Suppose an Indian exporter who has continuing exports to the USA invoices his exports in US dollars and maintains US dollar prices so as to retain its competitive position in the US market. Each USD receivable is sold forward. The firm's rupee cash flows will then fluctuate as the USD/INR forward rate fluctuates; if it does not hedge, the fluctuations in the cash flow will be proportional to the changes in the spot rate.

Empirically, the volatility of the forward rate is not significantly less than the spot rate. It could also remove its contractual exposure by invoicing each shipment in rupees on some kind of a cost-plus basis. Now, the dollar prices will fluctuate and so will the firm's export volume and market share. Thus hedging a contractual exposure just removes the uncertainty regarding the home currency value of that particular item; it cannot stabilize the firm's cash flows or profits.

Hedging with the Money Market

There is a close connection between Euro deposit markets and forward exchange premiums and discounts on account of covered interest arbitrage. Firms which have access to international money markets for short-term borrowing as well as investment, can use the money market for hedging transactions exposure.

- Suppose a US firm has a 90-day Euro receivable of EUR 10,000,000. It has access to Eurodeposit markets in EUR as well as USD. To cover this exposure it can execute the following sequence of transactions:

1. Borrow EUR in the London money market for 90 days.
2. Convert spot to USD
3. Use the proceeds in its operations e.g. to pay-off a short-term bank loan or finance inventory.
4. When the receivable is settled, use it to pay-off the EUR loan.

Suppose the rates are as follows:

EUR/USD Spot: 1.1062/70 90-day forward: 1.0990/1.1045

EUR interest rates: $5\frac{1}{4}$ / $5\frac{1}{2}$

Euro\$ interest rates: $4\frac{3}{4}$ / 5.00

You can check that these rates do not imply a covered interest arbitrage opportunity. Let us compare forward cover against the money market cover.

With forward cover, each EUR sold will give an inflow of USD 1.0990 days later. The present value of this (at 4.75% p.a.) is

$$1.0990 / [1 + (0.0475/4)] = \text{USD } 1.0861$$

To cover using the money market, for each EUR of receivable, borrow EUR $1/(1 + (0.055/4)) = \text{EUR } 0.9864$. Sell this spot to get $\text{USD}(0.9864 \times 1.1062) = \text{USD } 1.0911$. Pay-off the EUR loan when the receivable matures.

Thus with money market cover, there is a net gain of USD 0.0051 per EUR of receivable or USD 51000 for the 10 million Euro receivable.

Sometimes the money market hedge may turn out to be the more economical alternative because of some constraints imposed by governments. For instance, domestic firms may not be allowed access to the Euromarket in their home currency or non-residents may not be permitted access to domestic money markets. This will lead to significant differentials between the Euromarket and domestic money market interest rates for the same currency. Since forward premia/discounts are related to Euromarket interest differentials between two currencies, such an imperfection will present opportunities for cost saving.

Hedging With Currency Options

Currency options provide a more flexible means to cover transactions exposure. A contracted foreign currency outflow can be hedged by purchasing a call option (or selling a put option) on the currency while an inflow can be hedged by buying a put option. (Or, writing a call option. This is a “covered call” strategy).

Options are particularly useful for hedging uncertain cash flows i.e. cash flows that are contingent on other events. Typical situations are:

1. International tenders: Foreign exchange inflows will materialise only if the bid is successful. If execution of the contract also involves purchase of materials, equipment, etc. from third countries, there are contingent foreign currency outflows too.
2. Foreign currency receivables with substantial default risk or political risk e.g., the host government of a foreign subsidiary might suddenly impose restrictions on dividend repatriation.
3. Risky portfolio investment: A fund manager say in UK might hold a portfolio of foreign stocks/bonds currently worth say CHF 50 million, which he is planning to liquidate in six months time. If he sells CHF 50 million forward and the portfolio declines in value because of a falling Swiss stock market and rising interest rates, he will find himself to be over-insured and short in CHF.

We will discuss a few more examples of the use of options. We will particularly focus on the comparison of options with forward hedge both with reference to an open position. We will also illustrate some tailor-made hedges with option combinations and exotic options such as barrier options.

- On June 1, a UK firm has a CHF 5,00,000 payable due on September 1. The market rates are as follows:

GBP/CHF Spot: 2.8 175/85

90-day Swap points: 60/55

September calls with a strike of 2.82 (GBP/CHF) are available for a premium of 0.20p per CHF. We will evaluate the forward hedge versus purchase of call options both with reference to an open position. The strike price is equivalent to GBP 0.3546 per CHF.

1. Open Position

Suppose the firm decides to leave the payable unhedged. If at maturity the CHF/GBP spot rate is S_T , the sterling value of the payable is (£.00). In Figure this appears as a straight line through the origin.

2. Forward Hedge

If the firm buys CHF 5,00,000 forward at the offer rate of CHF 2.8 130 per GBP or £0.3557 per CHF, the value of the payable is (£(500,000 x 0.3557) = £1,77,850.

3. A Call option

Instead the firm buys call options on CHF 500,000 for a total premium expense of £1,000. At maturity, its cash outflow will be

$$\begin{aligned} & \text{£ } [(500,000) S_T + 1025] \text{ for } S_T \leq 0.3546 \\ & \text{and } \text{£ } [(500,000)(0.3546) + 1025] = \text{£}178,325 \text{ for } S_T \geq 0.3546 \end{aligned}$$

We have assumed here that the premium expense is financed by a 90-day borrowing at 10%.

Open position and forward hedge are equivalent if the maturity CHF/GBP spot rate equals the forward rate at the beginning viz. 0.3557. If it is higher, the firm is better off with a forward hedge than with an open position, if lower, open position would have been better. Call option and open position are equivalent when

$$(500,000) S_T = (0.3546)(500,000) + 1025$$

i.e. when $S_T = 0.3567$. At higher values, call option is better. Call option and forward are equivalent when

$$(500,000) S_T - 1025 = (0.3575)(500,000)$$

i.e. when $S_T = 0.3537$. At lower values than this the option alternative is better because of its one-way privilege - the firm can buy CHF in the spot market letting the option lapse.

Gains and Losses form Alternative Hedging Strategies

The call option becomes attractive relative to an open position for values of S_T beyond 0.3567. Relative to the forward hedge, the call option is better if the CHF depreciates below 0.3537. The maximum gain from the forward hedge, relative to the call is

$$(500,000 \times 0.3546) + 1025 - (0.3557)(500,000) = £475$$

Where as, if the CHF depreciates sharply, call option can result in substantial savings. For instance at $S_T = 0.3520$, saving from the call over the forward is £825.

Thus whether the firm should choose the call option strategy, the forward hedge or leave the exposure unhedged depends upon the view it takes of future spot rate. It might do a probabilistic mean-variance analysis to compare the forward hedge with the call if it can assign subjective probabilities to future values of the spot rate. Thus suppose its forecast of S_T can be summarised as follows:

S_T	Probability
0.3557	0.60
0.3510	0.30
0.3590	0.10

The firm considers the most probable value of maturity spot to be equal to the current forward rate. But it thinks that there is a 30% chance of a very sharp depreciation of the CHF (possibly because it thinks that the Swiss central bank is shortly going to cut interest rates to stimulate the economy) and a 10% chance of a very sharp appreciation. The expected cost with a forward hedge, relative to an open position is then higher by £540 and its standard deviation is 1279.6. For an option, the expected cost is lower by £475 with a standard deviation of 602.5. Thus in the mean-variance framework, call option should be the preferred choice because of its smaller expected cost and smaller variance. If however, the probabilities are changed to 0.60, 0.20 and 0.20, the choice is not clear; the forward hedge now has a smaller expected cost compared to the call option (—140 and —255 respectively) but a much larger variance. The choice now depends upon the firm's risk-return preferences.

- A US firm has bid for a contract to supply computers and related equipment to a Swiss buyer. The contract is valued at CHF 5 million. The outcome of the competitive tender bidding will be known one month from now and the equipment is to be supplied over two months following the award of contract with payment being made on completion of delivery.

The firm would like to cover the potential exposure. Also, the management has decided that any cover obtained must be offset if the firm is not awarded the contract.

The current market rates are:

USD/CHF spot: 1.50 90-day forward: 1.46

(We are ignoring two-sided quotes. It does not make any substantive difference)

A put option on CHF with a strike price of CHF 1.45 per USD and maturity of 90 days is available for a premium of 2.8 or \$0.028 per CHF.

The firm wishes to evaluate the following two alternatives:

1. Sell CHF 5 million 90-day forward at CHF 1.46 per USD. If at the end of the month the bid is not successful, the contract will be offset by a 2-month forward purchase at the then ruling rate.
2. Purchase a put option. If the contract is not awarded, close out by selling put options. (Assume that the options are bought on an options exchange).

The firm must pay an up-front premium of \$140,000.

If the contract is awarded, the original hedge is carried to maturity. Under each contingency viz. the firm gets the contract and does not get the contract we will evaluate the two alternatives. In each case we will consider three exchange rate scenarios.

1. The Bid is Unsuccessful

The firm unwinds the hedge by either purchasing DEM 5 million 60-days forward if the initial choice was a forward contract or by selling put options. We consider the gain/loss from each choice under the following three exchange rate scenarios at the end of one month:

(A) CHF has Depreciated

USD/CHF Spot: 1.60

60-day forward: 1.62

1.45, 2 month put 7

(B) Spot Rate Unchanged

USD/CHF Spot: 1.50

60-day forward: 1.48

1.45, 2 month put 2.3

(C) CHF has Appreciated

USD/CHF Spot: 1.37

60-day forward: 1.35

1.45, 2 month put 0.02

Scenario (A)

Forward hedge—Firm unwinds by purchasing forward at 1.62. Realises a gain of \$ two months hence.

Put options—Firm sells puts on CHF 5 million at \$0.07 per CHF for a total premium in come of \$350,000 accruing right away.

Scenario (B)

Forward hedge—Unwound at 1.48. Gain of \$46,279 two months hence.

Put options—Sell puts. Premium income \$1 15,000 right away.

Scenario (C)

Forward hedge—Unwound at a loss of \$279,046 two months hence.

Put options—Premium income of \$1,000 right away.

We have assumed that the forward hedge is unwound by means of another forward which matures at the same time as the original contract.

Thus in the event of the bid being unsuccessful, the firm risks a large loss if the CHF sharply appreciates in the interim and it has covered the uncertain inflow with a forward contract. With an option, at worst, its maximum loss is limited to the upfront premium.

2. The Bid is Successful

If the bid is successful, the put option hedge offers an advantage if over the next three months the CHF experiences a sharp appreciation. If the CHF remains unchanged or depreciates, the forward contract is more advantageous since it is costless to enter into.

The firm in tendering a bid will wish to know how to incorporate the element of currency risk. It can attempt to estimate the future spot rate and quote a foreign currency price based on this forecast; if it overestimates the weakness of DEM (underestimates its strength) it runs the risk of submitting an uncompetitive bid. In the reverse case, its profit margins will shrink. It can decide on a hedging device such as a put option and load the expected cost of the hedge into its price.

The timing, amount and the exercise price of the put option should be chosen to correspond to the forward contract which the firm might have bought had the receivable not been uncertain. This may not always be possible with exchange traded options. Cost of the put option can be reduced by buying an out-of-the-money option with lower strike and hence lower premium. Correspondingly, the level of protection against depreciation is reduced. Alternatively, the firm need not hedge the entire amount; if it is a frequent bidder for certain types of contracts, it will have built up some experience pertaining to the probability of success at various bid levels. It can reduce the cost of hedge by buying a put to cover only a fraction of the expected receivable reflecting the probability of success.

One important point should be kept in mind. The success or failure of the bid is dependent upon several factors including competition. The exchange rate may not be a factor at all or at best may be one of the many considerations influencing the customer's decision. The risk involved in the option however derives only from the behaviour of the exchange rate and its volatility. Thus in using the option as a hedge, the firm is trying to offset the risk of a diverse set of risk factors with an instrument the risk of which derives from a single source. The option hedge may be better than a forward contract but may not necessarily be the best hedge.

Consider the case of a Singapore firm which has imported textile and leather products from an Indian supplier. The invoice is for INR 25 crores due in 180 days.

Hedging With Currency Futures

Hedging contractual foreign currency flows with currency futures is in many respects similar to hedging with forward contracts. A receivable is hedged by selling futures while a payable is hedged by buying futures.

A futures hedge differs from a forward hedge because of the intrinsic features of futures contracts. Since amounts and delivery dates for futures are standardised, a perfect futures hedge is generally not possible.

The advantage of futures over forwards is firstly easier access and secondly greater liquidity. Banks will enter into forward contracts only with corporations (and in rare cases individuals) with the highest credit rating. Second, a futures hedge is much easier to unwind since there is an organised exchange with a large turnover.

Internal Hedging Strategies

In addition to the various market-based hedging devices discussed so far, a firm may be able to reduce or eliminate currency exposure by means of internal strategies or invoicing arrangements like risk sharing between the firm and its foreign customers. We take a look at some of the commonly used or recommended methods.

Invoicing

We have already discussed above the problem of currency of invoicing. A firm may be able to shift the entire exchange risk to the other party by invoicing its exports in its home currency and insisting that its imports too be invoiced in its home currency.

As we have seen above, in the presence of well-functioning forward markets this will not yield any added benefit compared to a forward hedge. At times, it may diminish the firm's competitive advantage if it refuses to invoice its cross-border sales in the buyer's currency.

Empirically, in a study of the financial structure of foreign trade Grassman (1973) discovered the following regularities:

1. Trade between developed countries in manufactured products is generally invoiced in the exporter's currency.
2. Trade in primary products and capital assets is generally invoiced in a major vehicle currency such as the US dollar.
3. Trade between a developed and a less developed country tends to be invoiced in the developed country's currency.
4. If a country has a higher and more volatile inflation rate than its trading partners, there is a tendency not to use that country's currency in trade invoicing.

Another hedging tool in this context is the use of “currency cocktails” for invoicing. Thus for instance, a British importer of chemicals from Switzerland can negotiate with the supplier that the invoice be partly in CHF and partly in GBP.

If the parties agree on a price of say CHF 1,000 per litre and the spot rate is CHF 2.25 per GBP, the price may be stated as

[{CHF 550 + £200) per litre}]. This way both parties share the exposure. Another possibility is to use one of the standard currency baskets such as the SDR for invoicing trade transactions.

Basket invoicing offers the advantage of diversification and can reduce the variance of home currency value of the payable or receivable as long as there is no perfect correlation between the constituent currencies. The risk is reduced but not eliminated. These days, OTC options on baskets of currencies are readily available so that the residual risk can be hedged.

Speculation in Foreign Exchange and Money Markets

Speculation in contrast to hedging involves deliberately creating positions in order to profit from exchange rate and/or interest rate movements. The speculator believes that market’s forecasts as reflected in forward rates and the term structure of interest rates are “wrong”. He hopes to profit by taking open positions at these prices.

Consider outright speculation in foreign exchange markets. Suppose a speculator believes that the EUR is going to appreciate against the dollar by 5% over the next three months. Further he finds that he can borrow 3-month dollars at 10% and invest 3-month EUR at 8%. He can speculate by borrowing dollars, converting spot to EUR and keeping EUR on deposit. If his forecast materialises, he will net a 2% (annualised) profit on reconversion of EUR into dollars. Alternatively, these rates imply a 2% (annualised) premium on EUR; the speculator can take an open long position in forward EUR, and sell EUR three months later in the spot market for a net annualised profit of 2%.

Not hedging a receivable or payable is thus equivalent to speculation. If a firm has a payable in a foreign currency and is confident that the currency is going to depreciate more than what is implied in the forward rate (or appreciate less) it speculates by not covering the payable.

Obviously, outright speculation is a high-risk activity. The risk of an open position depends upon the covariance of exchange rate with other assets in the speculator's portfolio. A speculator who is not risk neutral will demand a premium for undertaking the risk. Thus he will take an open long (short) forward position if he expects the currency to appreciate (depreciate) more than what is implied in the forward rate. However, exchange rate risk is diversifiable and hence unsystematic. As a result, the risk premium—the amount by which the forward rate has to be below or above the speculator's expected future spot rate—is likely to be quite small. Empirical investigations indicate that it is also varies with time.

Speculating with futures is quite similar to speculating with forwards. The main differences are, first, with futures since there are intermediate cash flows, the investor must speculate on interest rate movements too and second, since most futures contracts are liquidated prior to maturity, the relevant comparison is not between expected maturity spot rate and futures price.

Lesson 5.3 - Lending and Investment

Learning Objective

After you going through this lesson, you should be able to:

- Know the meaning of lending and investment.
- Understand the difference between lending and investment.

Short-Term Borrowing and Investment

International money markets particularly in well developed financial centers like London, New York and Tokyo offer a variety of instruments to raise short-term financing as well as place short-term funds. The principal dimensions of the borrowing-investment decisions are the instrument, currency, location of the financial center and any tax related issues. Between them they decide the cost of or return on funds, extent of currency exposure, the ease with which funds can be moved from one location and currency to another and thus the overall efficiency of the cash management function. In this section we will focus on the cost/return dimension. The other considerations—location, currency, etc.—will be taken up later.

Apart from bank loans, the other major instruments for short-term funding are commercial paper and, in the US domestic money market, bankers' acceptances. Commercial paper as a funding device is accessible only to corporations with high creditworthiness. For such entities, it is a cheaper form of funding than a bank loan.

On a covered basis, yields are equal (apart from transactions cost) across Eurocurrencies. Hence on a covered basis, the choice of currency of borrowing does not matter. Only when the borrower firm holds views regarding currency movements which are different from market expectations as embodied in the forward rate, does the currency of borrowing become an important choice variable.

The international Fisher open condition,

$$i_A - i_B = S^e(A/B)$$

where $S^e(A/B)$: Expected depreciation of currency A against currency B.

However, if speculators are risk averse, a risk premium must be incorporated in the above relationship:

$$i_A - I_B = S^e(A/B) + RP$$

where RP denotes the risk premium.

This coupled with the interest parity relation implies $F(A/B) = S_e(A/B) + RP$, where $F(A/B)$ is the relevant forward rate and $S_e(A/B)$ is the expected future spot rate.

Note that the risk premium can be negative or positive depending upon whether speculators as a group are required to be net short or long in the forward market. Thus the forward rate can on average equal the future spot rate even in the presence of a constant risk premium. However, in a particular instance, a firm may have reasons to believe that the forward rate is and underestimate or overestimate of the future spot rate. In such cases, the firm should compare the effective expected cost of borrowing across different currencies and choose the least cost alternative. Note that this involves risk and any saving on borrowing cost reflects compensation for the added risk.

Following the same reasoning, on a covered basis the firm should be indifferent between various currencies when it comes to placing temporary excess funds since the covered yields are identical. Considerations such as availability of various investment vehicles—deposits, CDs, CP, treasury bills, etc—and their liquidity may lead to one currency being favoured over another. A firm willing to take on added risk can make uncovered investments hoping to profit from its superior forecasting ability.

Surplus and Multinational Corporation

In a multinational corporation with production and selling subsidiaries spread around the world, cash in flows and outflows occur in diverse currencies. Apart from cost and return considerations, several other factors influence the choice of currencies and locations for holding cash balances.

The bid-ask spreads in exchange rate quotations represent transaction costs of converting currencies into one another. There may of course be other costs such as telephone calls, telexes, other paperwork, etc. Minimising transaction costs would require that funds be kept in the currency in which they are received if there is possibility that they might be

needed later in the same currency. A related but distinct consideration is that of liquidity viz, funds should be held in a currency in which they are most likely to be needed. This may not be the same as the currency in which the cash comes in. Militating against these factors is the political risk dimension. The parent firm may want to hold all surplus cash in its home currency to minimise the risk of its assets being frozen by a foreign government. However, this consideration would influence the location of the financial center where the funds are held rather than the currency and is likely to be of some importance only in the case of politically highly unstable countries.

Availability of investment vehicles and their liquidity is another important factor. Major money market centers such as London, New York, Zurich and so forth offer a wide variety of highly liquid money market instruments so that the firm does not need to hold practically any idle cash balances.

Finally, withholding taxes may influence the choice. If balances are held in interest bearing assets in a country which has a withholding tax on non-resident interest income, and the tax rate exceeds the parent's home country tax rate, the parent may not be able to get full credit for the foreign tax paid and such a location may therefore become unattractive for holding funds.

Investing Surplus Funds

Once the treasurer has identified the cash flows and determined how much surplus funds are available in which currencies and for what durations, he or she must choose appropriate investment vehicles so as to maximise the interest income while at the same time minimising currency and credit risks and ensuring sufficient liquidity to meet any unforeseen cash requirements.

The major investment vehicles available for short-term placement of funds are (1) short-term bank deposits (2) fixed term money market deposits such as CDs and (3) financial and commercial paper. The main considerations in choosing an investment vehicle can be summarised as follows:

Yield: Total return on the investment including interest income and any capital gain or loss. Very often security and liquidity considerations may take precedence over yield.

Marketability: Since liquidity is an important consideration, the ease with which the investment can be unwound is important. Instruments like CDs have well developed secondary markets while CPs and trade related paper have limited liquidity.

Exchange Rate Risk: If funds eventually required in currency A are invested in currency B, there is exchange rate risk. If covered, then as we saw above, there is no advantage to switching currencies.

Price Risk: If a fixed-term investment such as a CD or a T-bill has to be liquidated before maturity, there is the risk of capital loss if interest rates have moved up in the meanwhile.

Transactions Costs: Brokerage commissions and other transactions costs can significantly lower the realised yield particularly on short-term investments.

Money market investments are often available in fixed minimum sizes and maturities which may not match the size of the available surplus and the duration for which it is available.

Financing Short-Term Deficits

Just as judicious management of short-term surplus funds can earn extra income for the firm, careful handling of short-term deficits can lead to significant savings. The treasurer's objective in this regard should be to minimise the overall borrowing requirement consistent with the firm's liquidity needs and to fund these at the minimum possible all-in cost.

One of the cheapest ways of covering short-term deficits is internal funds. In a multinational firm with several subsidiaries, it often happens that while one division has a short-term funds requirement, another has surplus funds. While the former may have to take an expensive bank loan or overdraft facility the latter may not have very attractive investment opportunities beyond bank deposits. A centralised cash management system with cash pooling described below can efficiently allocate internal surpluses so as to optimise interest earnings net of interest costs for the corporation as a whole. However, cross-border inter-company loans are a complex area. There are issues related to differences in tax regimes, existence of double taxation treaties, differences in accounting norms, and exchange risk. Specialist advice is usually necessary to exploit these opportunities in an optimal fashion.

External sources of short-term funding consist of overdraft facilities, fixed term bank loans and advances and instruments like commercial paper, trade and bankers' acceptances. Apart from the all-in cost of funding, considerations such as collateral or security requirements, flexibility in terms of repayment schedule, speed with which a

new facility can be arranged, effect on firm's credit rating and so forth also play a role in evaluating the funding options. The size and maturity mismatch problems arise here too. For instance, suppose a treasurer determines that he has a requirement of USD 60,000 for 30 days. An over draft facility would cost him 8% while a 30-day term loan is available at 5% but the minimum amount is USD 100,000. Surplus funds can be kept in a deposit earning 3%. The problem again is to determine the "breakeven" size of funding requirement such that if the actual need is larger than this, it is preferable to go in for the term loan rather than an overdraft facility. In another case, an amount of USD 100,000 is needed for 18 days whereas a term loan is for a minimum of 30 days. Once again the reader can determine the breakeven gap above which it is preferable to take the loan and place the funds in a deposit during the days they are not needed.

Lesson 5.4 - Forex Risk and Euro Currency Markets for Lending & Investment

Learning Objectives

After you going through this lesson, you should be able to know the meaning and nature of foreign exchange risk and euro currency markets for lending & investment.

Forex Risk

The Dealing Room is rightly identified as a profit centre for a bank. In these days of reducing spread between the lending and borrowing rates, banks have to look to other sources to improve their bottom lines. Foreign exchange is one area where the potential is vast. The progressive liberalisation being introduced in the Indian foreign exchange market has improved the scope for dealers to show their skills and earn for their banks. But at the same time, it may not be forgotten that any scope for profits is associated with the risks of losing. It is more so in the case of foreign exchange dealing where the vagaries of the market can play havoc. Unbridled enthusiasm has to be monitored so that the bank does not expose itself to unduly huge risks.

The following are the major risks in foreign exchange dealings:

- (a) Open Position Risk,
- (b) Cash Balance Risk,
- (c) Maturity Mismatches Risk,
- (d) Credit Risk,
- (e) Country Risk,
- (f) (t) Overtrading Risk,
- (g) Fraud Risk, and
- (h) Operational Risks

1. Open Position Risk

The open position risk or the position risk refers to the risk of change in exchange rates affecting the overbought or oversold position in foreign currency held by a bank.

Hence this can also be called the rate risk. The risk can be avoided by keeping the position in foreign exchange square. The open position in a foreign currency becomes inevitable for the following reasons:

- (a) The dealing room may not obtain reports of all purchases of foreign currencies made by branches on the same day. Each bank has few dealing rooms mainly in metropolitan centre. The dealings with the customers are executed by the branches of the bank spread over the entire country. The branches are required to inform to the dealing room concerned immediately over telecommunication whenever a purchase or sale exceeding a limit, say equivalent of USD 1,000 takes place. Deals for smaller values will be taken into account by the dealing room when the reports are received through mail on a later date. Under this system imbalance may arise because:
 - (i) Smaller purchases and sales and not taken into account;
 - (ii) When communication system fails, even larger deals may also not be reported immediately; and
 - (iii) There may be wrong reporting or failure to report by branches.
- (b) The imbalance may be because the bank is not able to carry out the cover operation in the interbank market. This may be due to fact that counter party for the tenor and volume as required by the bank may not be available. Moreover operations in the interbank are done in round a sum, which necessarily leaves odd amounts in the exchange position uncovered.
- (c) Sometimes the imbalance is deliberate. The dealer may foresee that the foreign currency concerned may strengthen. In that case he would try to keep an overbought position; when the currency strengthens he can sell at a profitable rate. Conversely, when the expectation is that the foreign currency will weaken, he will acquire an oversold position; he can acquire the currency later at a cheaper rate and thus make a profit.

There is, however, a limit up to which the bank can keep 'open' position. If the bank keeps a large open position and its expectation about the movement of the currency fails, the result would be disastrous.

Internal Control

The appreciation of the various risks involved in exchange dealings has led to adoption of certain controls by the banks. Each bank fixes day-light limit' or 'intro-day limit for each currency. This is the limit up to which the dealer can deal himself without

reference to higher authorities. For instance, a bank may fix the daylight limit for US dollar as USD 5 million. That means the dealer can purchase and sell dollars so long as the balance outstanding at any time during the day is not exceeding USD 5 million. In addition the bank also fixes an 'overnight limit', i.e., the extent to which the currency position can be kept open at the end of the day. Normally the overnight limit would be much less than the daylight limit. While the daylight limit ensures that the bank does not acquire very large position in the currency which it may find it difficult to cover in the market, the overnight position puts a ceiling on the exchange risk to the bank. Apart from the above limits on individual currencies, the bank would also place a aggregate limit on the foreign exchange position for all the currencies put together. This would be smaller than the total of individual overnight limit for each currency.

Cut Loss Limit

This limit is fixed to restrict loss due to adverse movement in the exchange rates. The cut loss limit for dollar may be fixed at 5 paise. Suppose the dealer holds overbought position of USD 1 million at a cost of ₹ 35.86 per dollar. If the market rate for dollar moves down to less than ₹ 35.81, he should immediately square his position so that the loss can be restricted to 5 paise per dollar or ₹ 50,000. Otherwise the continuous decline in dollar rate would result in larger losses. The limit may be fixed with reference to the absolute amount of loss. In that case, if the exposure is higher in value, the per dollar difference may be reduced to see that the absolute loss is not exceeding, say, ₹ 50,000.

Exchange Control Regulation

The Exchange Control Manual stipulates that the authorised dealers should fix open position limits in each currency in accordance with the guidelines issued by Reserve Bank. Before laying down such limits authorised dealers should get them approved by Reserve Bank. Net overnight position in the rupee should not exceed the limit laid down by Reserve Bank from time to time. According to the guidelines, the banks should maintain on an on going basis Tier I capital (i.e., paid-up capital, statutory reserves and other disclosed free reserves at 5% of the open position limit approved by Reserve Bank. Further, in general, overall open position limit should have a reasonable relation to the capital of the bank.

2. Cash Balance Risk

Cash balance refers to actual balances maintained in the nostro accounts at the end of each day. Balances in nostro accounts do not earn interest; while any overdraft involves payment of interest. The endeavour should therefore be to keep the minimum

required balance in the nostro accounts. 1-lower, perfection on this count is not possible. Depending upon the requirement for a single currency more than one nostro account may be maintained. Each of these accounts is operated by a large number of branches. Communication delays from branches to the dealer or from the foreign bank to the dealer may result in distortions. The banks endeavour to obtain the statement of accounts from foreign banks on a daily basis through telecommunication and monitor closely the balances in nostro accounts. Reconciliation of balances of nostro accounts almost on a continuous basis also helps in this regard.

Exchange Control Regulation

The Exchange Control requires authorised dealers to maintain with overseas branches and correspondents, balances in foreign currencies at levels which are commensurate with their normal business needs having regard to the number of correspondents and branches in the country concerned and the number of offices and branches of the authorised dealer in India operating on the accounts. While transacting foreign exchange business in inter-bank market in India or overseas exchange markets, authorised dealers should ensure that the balances are not accumulated in their accounts abroad which are in excess of immediate needs such as payments towards imports or maturing deliveries under forward contracts.

3. Maturity Mismatches Risk

This risk arises on account of the maturity period of purchase and sale contracts in a foreign currency not coinciding or matching. The cash flows from purchases and sales mismatch thereby leaving a gap at the end of each period. Therefore this risk is also known as liquidity risk or gap risk.

Mismatches in position may arise out of the following reasons

- (i) Under forward contracts, the customers may exercise their option on any day during the month which may not match with the option under the cover contract with the market with maturity towards the month end.
- (ii) Non-availability of matching forward cover in the market for the volume and maturity desired.
- (iii) Small value of merchant contracts may not aggregate to the round sums for which cover contracts are available.
- (iv) In the interbank contracts, the buyer bank may pick up the contract on any day during the option period.

- (v) Mismatch may deliberately create to minimise swap costs or to take advantage of changes in interest differential or the large swings in the demand for spot and near forward currencies.

The mismatch can be corrected by undertaking a suitable swap. The risk involved is that the cost of swap may turn out to be higher than that provided for.

Internal Control

At monthly intervals the purchases and sales are aggregated maturity wise and the net balance arrived at. The following gap limits are prescribed limit.

- (a) A monthly gap limit for each currency. This is called the individual gap
- (b) A cumulative gap limit for all maturities for each currency which would be less than the total of monthly gap limits.
- (c) Cumulative gap limit for all currencies put together which would be less than the total of cumulative gap limit for all currencies.

Maturity Limit

Apart from the above, the bank may also fix the maximum period upto which forward cover can be offered to the customer. This depends upon the maximum maturity for which cover will be available in the market.

Exchange Control Regulations

It is stipulated that the authorised dealers should, as far as possible, avoid outright forward or swap transactions which result in maturity mismatches which are in excess of their aggregate gap limit. (Aggregate gap limit is defined as the sum total of the gaps in each currency arrived at by adding gaps in each month ignoring the plus or minus sign. In other words, it is the gross gap for all the months put together. In the cumulative gap limit mentioned above, monthly gaps are added considering the plus and minus signs. It is the net gap cumulatively for all months.)

4. Credit Risk

Credit risk is the risk of failure of the counterparty to the contract. Credit risk is classified into (a) contract risk, and (b) clean risk.

Contract risk arises when the failure of the counterparty is known to the bank before it executes its part of the contract. Here the bank also refrains from the contract. The loss to the bank is the loss arising out of exchange rate difference that may arise when the bank has to cover the gap arising from failure of the contract.

Clean risk arises when the bank has executed the contract, but the counter- party does not. The loss to the bank in this case is not only the exchange difference, but the entire amount already deployed. This arises, because, due to time zone differences between different centres, one currency is paid before the other is received.

Internal Control

The risk is controlled by fixing counterparty limits, both for banks and merchant customers. Limits are fixed on the aggregate outstanding commitments and separately for the amount of funds to be settled on a single day.

5. Country Risk

Also known as 'sovereign risk' or 'transfer risk' country risk relates to the ability and willingness of a country to service its external liabilities. It refers to the possibility that the government as well other borrowers of a particular country may be unable to fulfill their obligations under foreign exchange transactions due to reasons which are beyond the usual credit risks. For example, an importer might have paid for the import, but due to moratorium imposed by the government, the amount may not be repatriated.

Internal Control

The country risk analysis is made by taking into account the socio-economic and political situation of the country and a limit for exposure for that country is fixed.

6. Overtrading Risk

A bank runs the risk of overtrading if the volume of transactions indulged by it is beyond its administrative and financial capacity. In the anxiety to earn large profits, the dealer or the bank may take up large deals, which a normal prudent bank would have avoided. The deals may take speculative tendencies leading to huge losses. Viewed from another angle, other operators in the market would find that the counterparty limit for the bank is exceeded and quote further transactions at higher premiums. Expenses may increase at a faster rate than the earnings. There is therefore a need to restrict the dealings to prudent limits.

Internal Control

The tendency to overtrading is controlled by fixing the following limits

(a) A limit on the total value of all outstanding forward contracts; and (b) A limit on the daily transaction value for all currencies together (turnover limit).

7. Fraud Risk

Frauds may be indulged in by the dealers or by other operational staff for personal gains or to conceal a genuine mistake committed earlier. Frauds may take the form of dealing for one's own benefit without putting them through the bank accounts, undertaking unnecessary deals to pass on brokerage for a kick back, sharing benefits by quoting unduly better rates to some banks and customers etc. The losses from such fraudulent deals can be substantial.

Internal Control

It is imperative that dealers be well supervised, honest and well trained. Proper selection and proper training therefore play an important role. The following procedural measures are taken to avoid frauds:

- (a) Separation of dealing from back-up and accounting functions.
- (b) On-going auditing, monitoring of positions, etc., to ensure compliance with procedures.
- (c) Regular follow-up of deal slips and contract confirmations.
- (d) Regular reconciliation of nostro balances and prompt follow-up of unreconciled items.
- (e) Scrutiny of branch reports and pipe-line transactions.
- (f) Maintenance of up-to-date records of currency position, exchange position and counterparty registers, etc.

8. Operational Risks

These risks include inadvertent mistakes in the rates, amounts and counterparties of deals, misdirection of funds, etc. The reasons may be human errors or administrative inadequacies. The deals are done over telecommunication and mistakes may be found

only when the written confirm are received later. But reversing such mistakes may involve exchange rate and interest losses for the bank. If nostro reconciliation is not proper, the mistakes may remain undetected for long periods. By the time they are found out, the relevant records may not be available any more.

Internal Control

The internal control measures are same as that for preventing frauds.

Euro Currency Markets for Lending and Investment

Euro-currency market, also known as Euro-dollar market, is an international capital market which specializes in borrowing and lending of currencies outside the country of issue. Thus, deposits in dollars with a bank in London are Euro dollars. Similarly, French francs held by banks in London are Euro-francs; pound-sterling held by banks in Germany are Euro-sterling, and so on. They are all Euro-currencies. Predominantly, the dealings in the market are in dollars and hence the name Euro-dollar market is still in vogue.

The main centres of Euro-currency are London and a few other places in Europe. The growth of the market has extended beyond these limits and now it includes a few centres of Asia too, such as Singapore. The centres in Asia are known as Asian-dollar market. The terms Euro-dollars and Euro-currency are used universally to denote all such markets, including the Asian dollar market.

Special Features of the Market

The following are the special features of the Euro-currency market:

1. Transactions in each currency take place outside the country of its issue. For example, dollars earned by a Japanese firm from exports may be deposited with a bank in London. The London bank is free to use the funds for lending to any other bank. The bank may use it for lending to French Bank. Thus the utility of the currency is entirely outside the control of the central bank of the country issuing the currency. For this reason, Euro-currencies are also referred to as offshore Currencies
2. Even though the currency is utilised outside the country of its origin, it has to be held only in the country of its issue. To continue our example, the Japanese firm deposits its dollar earnings with a bank in London. The London Bank will keep the funds in a New York Bank in its own name. When the London Bank lends the amount to

the French Bank, it will give suitable instructions to the New York Bank. On receipt of the instructions, the New York Bank will debit the account of the London Bank and credit it to the account of the French Bank. Thus ultimately the settlement of all dollar transactions takes place in New York. Similarly, settlement of all Euro-sterling transactions is made in London, all Euro-French franc transactions in Paris and so on.

3. Though Euro-currencies are outside the direct control of the monetary authorities of their respective countries of issue, they are subject to some form of indirect control. This is because the settlement of all transactions has to take place only in the country of issue. If the country of issue imposes any restrictions, the conversion of balances in the currency held outside the country into another currency would also be affected. As already stated conversion into another currency would involve clearing in the country of issue at some point of the transaction. This automatically subjects them to the restriction.
4. Euro-currency market is not a foreign exchange market. It is a market for deposits with and between banks (inter-bank deposits) and for loans by banks to the non-bank public. It is a market in which foreign currencies are lent and borrowed as distinct from the foreign exchange market, where they are bought and sold. It consists of a pool of predominantly short-term deposits which provide the big single source of funds that commercial banks transform into medium and occasionally long-term international loans or Euro-credits.
5. The transactions in the market involve huge amounts running into millions of dollars. The large-scale financing has led to the development of syndications of loans, where a large number of banks participate in the lending operations.
6. Euro currency is a market is a highly competitive market with free access for new institutions in the market. Consequently, the margin between the interest rates on deposits and adv has narrowed down considerably.
7. A special feature is the concept of 'floating rates of interest'. The rate of interest is linked to a base rate, usually the London Inter-Bank Offered Rate (LIBOR). The interest on the deposit or the advance would be reviewed periodically and changed in accordance with change, if any, in LIBOR.
8. US dollar remains the leading currency traded in the Euro-currency market, even though its share is declining. Other currencies traded in the market on large scale are Deutsche mark, Japanese Yen, Pound Sterling and Swiss Franc.
9. The Euro-currency market can broadly be divided into four segments:

- (i) Euro-credit markets, where international group of banks engage in lending for medium and long term;
- (ii) Euro-bond market, where banks raise funds on behalf of international borrowers by issuing bonds; and
- (iii) Euro-currency (deposits) market, where banks accept deposits, mostly for short term.
- (iv) Euro-notes market, where corporate raise funds.

The division is not watertight and the different segments overlap each other.

Interest Rate in Euro-Currency Markets

The interest rates in Euro-currency markets are determined by a multitude of factors which affect the demand and supply conditions of the currency concerned. Some of the factors are: (1) volume of world trade transacted in the currency, ii) domestic interest rates, (iii) domestic monetary policy and reserve requirements. (iv) Domestic government regulation, and (v) relative strength of the currency in the foreign exchange market. In practice, domestic interest rates act as a floor to Eurocurrency rates because the funds flow into Eurocurrency market seeking higher interest. Although the Eurocurrency market operates in a number of centres around the world, interest rates for a particular currency are consistent. Any temporary variations at different markets are quickly eliminated by international arbitrage.

Interest in Eurocurrency market is generally a floating rate of interest. Periodically, the interest rate will change with reference to a benchmark rate like LIBOR. For instance, the interest on a Euro-bond for five years may be fixed at ISO basis points over Libor. (One basis point is 1/100 of 1%). The Libor at the time of issue plus 1.5% will be applicable for six months. At the end of this period, Libor then prevailing will be reckoned and the interest for the next six months will be based on the Libor then prevailing. This will be repeated every six months.

LIBOR is the 'London Inter-Bank Offered Rate' and represents the rate which banks in London will lend a currency to other banks for a specific maturity. Since London is a major Eurocurrency market. Libor is used as the basis for most Eurocurrency transactions) Libor varies for different maturities. Thus we have 1 month Libor, 3 months Libor, 6 months Libor etc. Rates quoted by different banks may vary slightly, the bigger banks offering lower rates. In respect of a particular contract based on Libor, say a Eurobond issue, the rate is fixed by nominating reference banks. The reference banks may be from among those syndicating the issue. Or, to maintain neutrality, they may be banks outside the syndicate.

The rates quoted by these banks at a stipulated time, often 11 AM London time, two business days before start of the due date, is taken as the basis. The average of such rates is rounded off to the nearest 1/8 per cent.

LIBID is the 'London Interbank Bid' rate. It is the rate at which banks accept euro-deposits. Bid rates are lower than offered rates usually by 1/8 to 1/4 percent.

LIMEAN is the average of Libor and Libid.

Prime Rate is the rate of interest charged by first class banks in USA on advances to their first class borrowers. For example, it may relate to an advance made to a multinational corporation with a very high credit rating. This rate is usually a couple of percentage points higher than the discount and Federal funds rate. While it follows the same trends, it is determined rate calculated from money market rates, especially from the 90 days Certificate of Deposit rate.

Every bank in the USA announces independently its prime rate, but this tends to influence the rate of other banks also. Similarly, the prime rate has influence over the Eurodollar rate and is also influenced by it. A change in the prime rate is followed by a change in the Eurocurrency rate and vice versa.

SIBOR represents the Singapore interbank Offered Rate Similar to Libor, it is the rate at which principal banks in Singapore offer to lend Asian dollars and other currencies to other banks. Sibor forms the basis for interest rate on Asian dollar and syndicated loans.

Euro-Credits

Most of the lending in Euro-currency markets takes the form of Euro-credit. Euro-credits are medium and long-term loans provided by international group of banks in currencies which need not be those of the lenders or borrowers. Euro- credit belongs to wholesale sector of the international capital market and normally involves large amounts.

Security

Euro-credits are provided mostly without any collateral security from the borrower. By experience banks in Euro-market have found that taking security by way of, say mortgage, etc. on the assets of the borrower do not provide any safeguard to the interests of the lender when the affairs of the borrower really go bad. Therefore more emphasis is laid on the credit rating of the borrower rather than on any tangible security. Providing Euro-credits

as unsecured facilities also renders the job easy by avoiding complicated procedures to take charge of the security.

Type of Facility

The conditions stipulated for drawing and repayment of the facility depends upon the kind of credit provided. Euro-credits are normally provided in either of the following two forms: (i) revolving credit and (ii) term credit.

Revolving credit is similar to a cash credit facility. It is a standby facility to meet temporary but recurring financial requirements of the borrower. Interest is charged on the actual amount utilised; on the sanctioned but unutilized portion, a commitment fee may be charged. Repayment is arranged by progressively reducing the limit till the entire facility is thus reduced.

Term credit is similar to medium-term loans provided by banks. At the beginning itself both the lenders and borrowers agree on the schedule of drawing the facility. The facility is utilised in full for some time and then, in accordance with the agreement already entered into, repayment begins. The repayment schedule is fixed taking into account the expected revenue flow from the investment.

The borrower is expected to give seven days notice when he wants to avail the installment as per the schedule of drawings. Once he has given the notice to avail of the drawing, he is irrevocably bound by it. Similarly, for forgoing the drawing, seven days' notice is required to be given to the lenders. Many loan agreements provide for pre-payment of the full amount without any penalty at 30 days or 60 days' notice. The provision helps the borrowing companies to repay the loan and avail better conditions that may prevail in the market at a later date.

Period

The period of euro-credits extends up to 15 years. But most of the credits are for periods of 5 to 8 years. On an average about 5% of the total credits are for periods ranging from 1 to 5 years and about 10% from 10 to 15 years.

Interest

Interest is fixed at a certain percentage over a reference rate, generally the interbank rate for Euro-currency deposits. For dollar loans the reference rate is the LIBOR (London

Inter-Bank Offered Rate) for Deutsche Mark it is LUXIBOR (Luxemborg Interbank Offered Rate) which is the main centre for interbank Euro-mark market. For similar reason, for loan in pound sterling the Paris Interbank Offered Rate is taken as the basic rate.

Generally interest for dollar loans is fixed at a percentage over Libor say 1% over Libor. The interest is revised every six months, considering the changes in Libor. Thus, technically, the credit is 'rolled over' or renewed every SIX months. The difference between the interest charged on the loan and the Libor is the lending margin, the lending margin is not fixed but depends upon the credit rating of the borrower and his bargaining capacity.

Currency

Most of the loans raised are in dollars. Some loan agreements also provide for currency option. That is, initially the loan is raised in dollars. The borrower is given the option to roll over the loan in a different currency according to his requirement. This again is possible provided the bank can procure the required currency. The multi-currency option helps the borrower in avoiding ex change risk and also does not involve the lending bank in any risk.

Syndication of Loans

Each euro-credit runs into a huge amount of a few hundred million dollars. It is not safe or possible for a single bank to undertake the entire amount. Thus few banks form a syndicate (similar to consortium lending in domestic banking) to provide funds to the borrower. The practice is also partly due to the US laws which provide limitations on loans of any single bank to any single borrower. Bank syndicates are not permanent groupings. They are formed in each case by banks willing to participate in the credit.

In arranging the credit the major role is played by (i) managing bank(s) appointed by the borrower to arrange the credit; (ii) lead bank, providing most of the money, and (iii) agent bank appointed by lenders to look after their interests once the loan agreement is signed. All the functions may be rendered by a single bank.

The managing bank(s) is/are appointed by the borrower to arrange the credit. Earlier the management scene was dominated by British merchant banks and other investment banks. They were ideally suited because of their international connections with banks and borrowers. Commercial banks merely provided the necessary funds. They did not take to management because they lacked specialized person id or international connections to arrange credits themselves. Then came consortium banks created by groups of large

commercial banks to undertake specialized international operations for all the shareholders. By 1970 management of most credit passed to world's largest commercial banks. By this time they had resources to meet increase in demand for credit and had acquired requisite technical expertise. They also felt the need to protect themselves against exposure by taking active part in evaluation of borrowers, negotiation of terms and supervision of loans. The attraction of management fee also added strength to the decision.

As a result of the change in the scene the participants in the market fall into two segments: (i) The wholesale large commercial banks who arrange credits, take major share and are a force to reckon with; and (ii) retail sector small banks taking what participation they can get.

The appointment of the managing bank is formalized with the award of mandate by the borrower. The managing bank helps the borrower in drawing up a statement of the borrower's financial condition and purpose of the credit and the loan agreement. It negotiates terms with other banks and assembles the syndicate. The manager's function comes to an end with the signing of the loan agreement by the borrower and the participating banks and the agent bank take over from there.

But, in practice, the managing bank continues to keep in touch with the borrowers to help protect the interests of the lending syndicate.

For the service rendered, the managing bank is entitled to the management fee at a flat percentage of the loan. It is paid by the borrower at the time of signing of the agreement.

The participants in the syndicate are entitled to participation fee. A part of the management fee received by the managing bank is passed on to the participants as the participation fee in proportion to the share of funds provided by each. Participation fee is not payable if share of a bank is less than a prescribed minimum.

A situation may arise where the borrower has to pay facility fee in addition to the management fee. The facility fee is the commitment charge paid on un-drawn portion of the credit to compensate the banks for keeping funds ready. It is payable at an annual rate.

Protection to Lending Banks

One major step taken by lending banks to protect their interests is to analyze the position of the borrower and his country's economic and political environment thoroughly before committing themselves on the loan. Even though all members of the syndicate sign a

common loan agreement, each lending bank is responsible for its own decision and surveillance over the borrower. But the smaller banks may lack the desired infrastructure to undertake a detailed country risk analysis. They, therefore, rely on the larger banks.

Many covenants are included in the loan agreement safeguarding the interest of the lending banks. Any misrepresentation by the borrower in the information furnished to the syndicate or failure to perform the covenants will be considered as default by the borrower. Default with any single lending bank will be regarded as default with all banks. The covenants include negative lien maintenance of ratios between assets and liabilities, limitation on dividends and total debt service in relation to earnings etc. But recourse to legal protection is rendered difficult because the credits fall outside the jurisdiction of any single authority. Further complication is the legal status of governments and international organizations as borrowers although many countries have passed laws to waive sovereign immunity in commercial transactions. Therefore, in case of default settlement by political negotiation rather than by litigations is the order of the day.

The interests of the lending banks are protected better when there is co-financing by official international organizations like IMF and World Bank. In such cases information about international financial flows and debtor countries becomes easily available. In case of default IMF may propose conditions for management of economies as a corrective measure. But co-financing by these institutions is confined to a very few cases.

In case of weaker borrowers, the lending banks try to compensate the higher risk which is involved by prescribing higher lending margins. Higher margins may also be a polite way of saying no to the proposal.

Euro-Bonds

A major source of borrowing at Euro-markets is through the issue of international bonds known as Euro-bonds. Euro-bonds are those sold for international borrowers in several markets simultaneously by an international group of banks. They are issued on behalf of multinational corporations, international agencies and governments. In the past borrowers were largely from industrialised countries of late, developing countries have entered the market on a large scale. Most of their borrowings had been balance of payments-oriented, either directly or indirectly.

Euro-bond should be distinguished from foreign bonds. Foreign bond is issued on behalf of a non-resident borrower as in the case of Euro-bond. But a foreign bond is sold only in the domestic capital market of the Issuing country by a group of banks in the market

of issue. It is subject to regulations of the country of issue. For example, a foreign bond may be issued on behalf of a Japanese firm exclusively in West Germany. As against these restrictions a Euro-bond is outside the regulations of a single country. The investors are spread world-wide.

Euro-bonds are unsecured securities. Therefore only borrowers of high financial standing are able to issue such bonds. When they are issued by government corporations and local bodies, they are guaranteed by the government of the country concerned. Issues by subsidiaries normally carry guarantee of the parent company.

Selling of euro-bonds is done through Syndicates. The Lead Managing Bank is responsible for advising on the best size of the issue, terms and timing and for coordinating the issue. Lead managers take the help of co-managing banks. Entire issue is underwritten by the managers and a larger group of underwriting banks. In addition there are still larger groups of selling banks.

The lead managing bank is entitled to the management fee, the underwriting banks the underwriting allowance and selling banks to the selling concession. All put together, the cost of issue may come to 2% to 2.5% of the value of the issue. Initially the lead manager holds the entire commission allowance, etc. The borrower gets the value of the issue less commission, etc., from the lead manager. The lead manager allocates the bonds to all members of the selling group at face value less their commission/allowance. Thereafter every member is on its own. They can sell to investors at whatever prices they can obtain. Thus no two investors in the Euro-bond market need pay the same price for newly issued bonds.

Features Most Euro-bonds are bearer securities Most of the bonds are de nominated in US dollars, issued in denominations of USD 10,000. The average maturity of Euro-bonds is about 5 to 6 years although it is normal to find issues with maturity up to 15 years.

Euro-Issues

Access to Euro-equity market is made through the issue of:

- (i) Foreign Currency Convertible Bonds; and
- (ii) (ii) Depository Receipts.

Foreign currency convertible bond (FCCB) is a Euro-bond which can be converted into shares at the option of the investor. This has also been explained under 'Euro bonds'.

Depository Receipts, or the more popular among them, the Global Depository Receipts are explained below.

Global Depository Receipt

A Global Depository Receipt is a negotiable instrument denominated in US dollars that represents shares issued in a local currency. The shares of the issuing company are issued in the name of an international bank, called the depository who is located in a foreign country. The physical possessions of the shares issued are with a 'custodian' in the issuing country. The shares are issued to the depository in the local currency. Based on the shares held by it, the depository issues the GDRs in US dollars. The dividend, after withholding tax etc., is paid by the issuing company to the depositor in the local currency. The depository converts the dividend received into US dollars at the ruling exchange rate and distributes it among the GDR holders. GDRs are bearer instruments and traded freely in international markets either through stock exchange mechanism or on an 'Over The Counter' (OTC) basis. The settlements are done through international clearing systems like Euroclear (Brussels) or CEDEL (London).

GDRs offer many advantages to the issuing company. The exchange risk is borne by the investors as the payment towards dividend is made in the local currency. There is no dispersal of voting rights as right to vote is vested only with the depository and is regulated by an agreement between the company and the depository. It enables the company to broaden the capital base by tapping large foreign equity markets. But the issue is subject to country risk analysis and for companies from countries with poor credit rating, the issue may not be successful or can succeed only at higher cost. The value of GDRs depends upon the value of the shares of the company. The prospects of the company for future issues may be affected by decline in share prices in the local market which may be a market phenomenon unconnected with the performance of the company.

For the investors, it offers portfolio diversification in a freely traded instrument in a convertible currency. The investors bear exchange risk as well as risk of capital erosion. GDRs have become very popular with Indian companies. About 58 companies have tapped this source as against 10 companies which have raised Euroconvertible bonds.

Lesson 5.5 - Interest Rate Parity Theory

Learning Objectives

After you going through this lesson, you should be able to:

- Know the meaning and nature of interest rate parity theory.

Interest Rate Parity Theory

Spot and forward rates are closely linked to each other and to interest rates in different currencies through the medium of arbitrage. Specifically, the movement of funds between two currencies to take advantage of interest rate differentials is a major determinant of the spread between forward and spot rates. In fact, the forward discount or premium is closely related to the interest differential between the two currencies. According to interest rate parity (IRP) theory, the currency of the country with a lower interest rate should be at a forward premium in terms of the currency of the country with the higher rate. More specifically, in an efficient market with no transaction costs, the interest differential should be (approximately) equal to the forward differential. When this condition is met, the forward rate is said to be at interest rate parity, and equilibrium prevails in the money markets.

Interest parity ensures that the return on a hedged (or “covered”) foreign investment will just equal the domestic interest rate on investments of identical risk, thereby eliminating the possibility of having a money machine. When this condition holds, the covered interest differential—the difference between a domestic interest rate and the hedged foreign rate—is zero. To illustrate this condition, suppose an investor with \$1,000,000 to invest for 90 days is trying to decide between investing in U.S. dollars at 8% per annum (2% for 90 days) or in euros at 6% per annum (1.5% for 90 days). The current spot rate is €1.13110/\$, and the 90-day forward rate is €1.12556/\$. Exhibit 4.14 shows that regardless of the investor’s currency choice, his hedged return will be identical. Specifically, \$1,000,000 invested in dollars for 90 days will yield $\$1,000,000 \times 1.02 = \$1,020,000$. Alternatively, if the investor chooses to invest in euros on a hedged basis, he will

1. Convert the \$1,000,000 to euros at the spot rate of €1.1311019. This yields €1,131,100 available for investment.

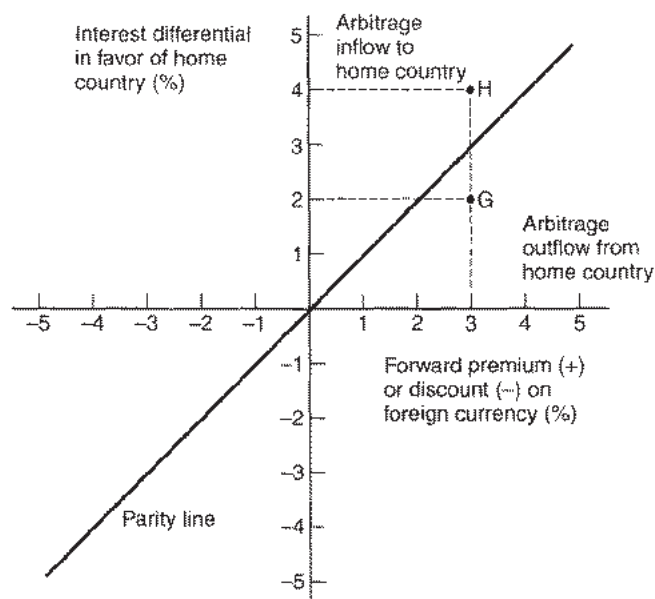
2. Invest the principal of €1,131,100 at 1.5% for 90 days. At the end of 90 days, the investor will have €1,148,066.50.
3. Simultaneously with the other transactions, sell the €1,148,066.50 in principal plus interest forward at a rate of €1.12556/\$ for delivery in 90 days. This transaction will yield €1,148,066.50/1.12556 \$1,020,000 in 90 days.

If the covered interest differential between two money markets is nonzero, there is an arbitrage incentive to move money from one market to the other. This movement of money to take advantage of a covered interest differential is known as covered interest arbitrage.

The transactions associated with covered interest arbitrage will affect prices in both the money and foreign exchange markets. In the previous example, pounds are bought spot and sold forward, boosting the spot rate and lowering the forward rate, the forward discount will tend to widen. Simultaneously, as money flows from New York, interest rates there will tend to increase at the same time the inflow of funds to London will depress interest rates there. The process of covered interest arbitrage will continue until interest parity is achieved, unless there is government interference.

If this process is interfered with, covered interest differentials between national money markets will not be arbitrated away. Interference often occurs because many governments regulate and restrict flows of capital across their borders. Moreover, just the risk of controls will be sufficient to yield prolonged deviations from interest rate parity.

Interest Rate Parity Theory



In reality, the interest parity line is a band because transaction costs, arising from the spread on spot and forward contracts and brokerage fees on security purchases and sales, cause effective yields to be lower than nominal yields. For example, if transaction costs are 0.75%, a covered yield differential of only 0.5% will not be sufficient to induce a flow of funds. For interest arbitrage to occur, the covered differential must exceed the transaction costs involved.

The covered interest arbitrage relationship can be stated formally. Let e_0 be the current spot rate (dollar value of one unit of foreign currency) and f_1 the end-of-period forward rate. If r_h and r_f are the prevailing interest rates in New York and, say, London, respectively, then one dollar invested in New York will yield $1 + r_h$ at the end of the period; the same dollar invested in London will be worth $(1 + r_f)f_1/e_0$ dollars at maturity. This latter result can be seen as follows: One dollar will convert into $1/e_0$ pounds that, when invested at r_f , will yield $(1 + r_f)/e_0$ pounds at the end of the period. By selling the proceeds forward today, this amount will be worth $(1 + r_f)f_1/e_0$ dollars when the investment matures.

Funds will flow from New York to London if and only if

$$1 + r_h < \frac{(1 + r_f)f_1}{e_0}$$

Conversely, funds will flow from London to New York if and only if

$$1 + r_h > \frac{(1 + r_f)f_1}{e_0}$$

Interest rate parity holds when there are no covered interest arbitrage opportunities. On the basis of the previous discussion, this no-arbitrage condition can be stated as follows:

$$\frac{1 + r_h}{1 + r_f} = \frac{f_1}{e_0} \quad 4.17$$

Using Interest Rate Parity to Calculate the \$ / ¥ Forward Rate

The interest rate in the United States is 10%; in Japan, the comparable rate is 7%. The spot rate for the yen is \$0.003800. If interest rate parity holds, what is the 90-day forward rate?

Solution: According to IRP the 90-day forward rate on the Yen, f_{90} should be \$0.003828

$$f_{90} = \$0.003800 \times \frac{1 + (0.10 / 4)}{1 + (0.07 / 4)} = \$0.003828$$

In other words, the 90-day forward Japanese yen should be selling at an annualized premium of about 2.95% $[4 \times 0.003828 - 0.003800]/0.0038$].

Interest rate parity is often approximated by Equation 4.18.

$$r_h - r_f = \frac{f_1 - e_0}{e_0}$$

In effect, interest rate parity says that high interest rates on a currency are offset by forward discounts and that low interest rates are offset by forward premiums.

Transaction costs in the form of bid-ask spreads make the computations more difficult, but the principle is the same: Compute the covered interest differential to see whether there is an arbitrage opportunity.

Computing the Covered Interest Differential When Transaction Costs Exist

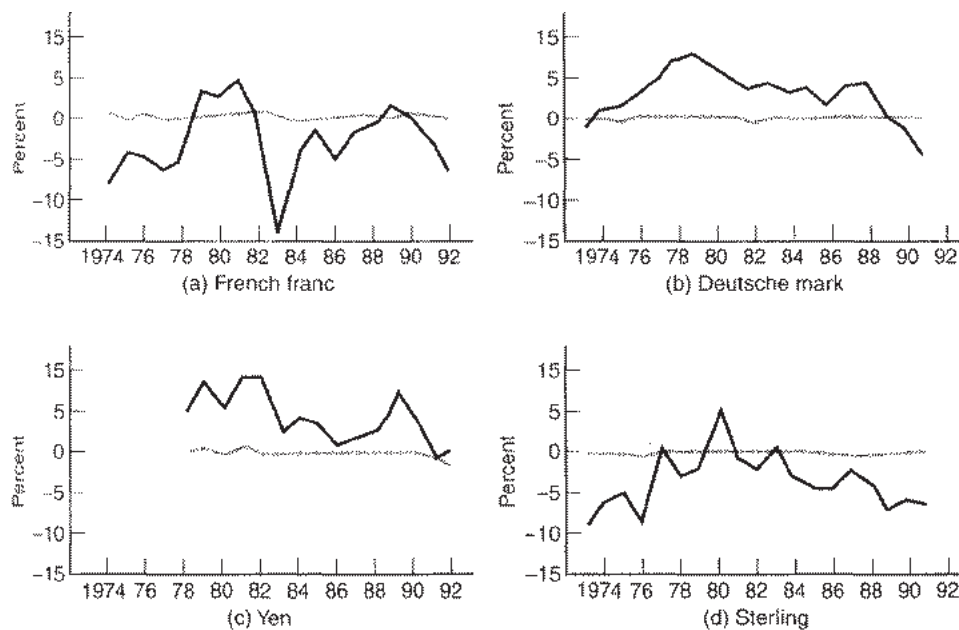
Suppose the annualized interest rate on 180-day dollar deposits is $6\frac{7}{16}\%$ — $5\frac{1}{16}\%$, meaning that dollars can be borrowed at $6\frac{7}{16}\%$ (the ask rate) and lent at $5\frac{1}{16}\%$ (the bid rate). At the same time, the annualized interest rate on 180-day Thai baht deposits is $9\frac{3}{8}\%$ — $1\frac{1}{8}\%$. Spot and 180-day forward quotes on Thai baht are B 31.5107—46/\$ and B 32.1027—87/\$, respectively. Is there an arbitrage opportunity? Compute the profit using B 10,000,000.

Solution. The only way to determine whether an arbitrage opportunity exists is to examine the two possibilities. Borrow dollars and lend Thai baht or borrow baht and lend dollars, both on a hedged basis. The key is to ensure that you are using the correct bid-ask interest and exchange rates. In this case, it turns out that there is an arbitrage opportunity from borrowing Thai baht and lending dollars. The specific steps to implement this arbitrage are as follows:

1. Borrow B 10,000,000 at the ask rate of $9\frac{3}{8}\%$ for 180 days. This interest rate translates into a 180-day rate of $0.09375/2 = 4.6875\%$, requiring repayment of B 10,468,750 in principal plus interest at the end of 180 days.
2. Immediately convert the B 10,000,000 to dollars at the spot ask rate of B 31.5146/\$ (the baht cost of buying dollars spot). This yields \$317,313.25 ($\$10,000,000/31.5146$) available for investment.
3. Invest the principal of \$317,313.25 at $0.063125/2 = 3.15625\%$ for 180 days. In one month, this investment will have grown to \$327,328.44 ($\$317,313.25 \times 1.0315625$).

4. Simultaneously with the other transactions, sell the \$327,328.44 in principal plus interest forward at the bid rate of B 32.1027 (the rate at which dollars can be converted into baht) for delivery in 180 days. This transaction will yield B 10,508,126.86 in 180 days.
5. At the end of six months, collect the \$327,328.44, deliver it to the bank foreign exchange department in return for B 10,508,126.86, and use B 10,468,750 of the proceeds to repay the loan. The gain on this net of transactions is B 39,376.86.

Uncovered and Covered Interest Rate Differentials (U.S. \$ Versus Other Currencies)



- Uncovered interest rate differentials (three-month Eurodollar deposit rates minus three-month Euro-deposit rates in named currency)
- Covered interest rate differentials (uncovered differentials minus three-month forward exchange rate premium)

Put Call Option Interest Rate Parity

Interest rate parity relates the forward rate differential to the interest differential. Another parity condition — known as put-call option interest rate parity—relates options prices to the Interest differential and, by extension, to the forward differential. We are now going to derive the relation between put and call option prices, the forward rate, and domestic and foreign interest rates. To do this, we must first define the following parameters:

C = call option premium on a one period contract

P = put option premium on a one-period contract

X = exercise price on the put and call options (dollars per unit of foreign currency)

Other variables – e_0 , e_1 , f_1 , r_h and r_f - are as defined earlier.

For illustrative purposes, Germany is taken to be the representative foreign country in the following derivation. In order to price a call option on the euro with a strike price of X in terms of a put option and forward contract, create the following portfolio:

1. Lend $1/(1 + r_f)$ euros in Germany. This amount is the present value of € 1 to be received one period in the future. Hence, in one period, this investment will be worth € 1, which is equivalent to e_1 dollars.
2. Buy a put option on € 1 with an exercise price of X .
3. Borrow $X/(1 + r_h)$ dollars. This loan will cost X dollars to repay at the end of the period given an interest rate of r_h .

Self-Assessment Questions

1. Explain European Exchange Rate Mechanism (or ERM)
2. Outline the history of the EMU
3. Outline the countries using the euro and EU Members outside the Euro-Zone
4. Write down the objectives of Hedging Policy.
5. How you evaluate the Interest Rate Options?
6. Compare the lending and investment policies in the global market.
7. What do you mean by cover deals?
8. 'Speculation is very complication in the global market', explain it with example.
9. Many finance managers view forward premia / discounts as a cost of hedging. Explain why this is an incorrect view.
10. Explain the Bid Rate and Forward Rate.
11. Explain the Quotation.
12. What is GDR? Explain the steps in issuing GDRs.
13. Explain different form foreign equity investment.
14. Briefly describe the variation of global market debt instrument.
15. What is commercial paper? What are its advantages?

16. Explain the features of different types of euro bonds
17. Discuss the role of world bank
18. Explain the objectives, structure and functioning Of IMF.
19. What is ADB? How it renders developmental assistance?

CASE STUDIES

Case Study - I

Auto life India Limited started manufacturing lighting systems with an equity capital of only ₹ 1 lakh. But later on Autopal is a ten-company industrial group having combined turnover of ₹ 64 crore worth a wide range of products. In 1994, 47% of income was accounted for by exports to as many as 70 countries. Autopal is poised to capture 6% of the world market for lamps by the end of the century.

The Autopal started exported which have been raising slowly. It had set up a production unit with an investment outlay of ₹ 13 crore in collaboration with Amav GmbH of Germany to manufacture glass lends of internal as well as export purpose. The company got many laurels and had bagged lucrative export orders from General Motors of U.S. and Volkswagen of Germany with remarkable strategic success achieved so far, the Autopal is on the way to emerge as a world leader in the fields of automotive and general lighting. Recently the company suffered a lot due to fall in the value of dollar at International level. The outlook for dollars continues to look gloomy.

Questions

1. Under this situation, what the company will do to retain its world leader status?
2. What will be the impact of the fall in the value of dollar on the company's foreign market?

Case Study – II

United State is the largest economy in the world, in terms of Gross Domestic Product. The GDP exceed 36 trillion (PPP). USA is the biggest exporter in the world. The per capita GDP is more than \$42000 (PPP). The country is considered to be the most technologically powerful economy in the world. The exports exceed one trillion dollars. The dollar has been the most powerful and popular currency of the 20th century.

But in the last three/four years, dollar has fallen by 35% against Euro and by 24% against the Yen. The fall of dollar reflects the structural problems faced by the American economy, such as huge-external debt exceeding nine trillion dollars, heavy imports (about two trillion dollars), USA also has a huge balance of payments deficit and fiscal deficit. Therefore, the outlook for dollars continues to look gloomy.

Indian has about \$200 billion as foreign exchange reserve. The central banks all over the world have more than \$2.5 trillion as reserves. If these central banks decide to sell off the dollar securities, the value of dollar will fall.

Questions

1. Should dollar continues to be the international currency? What are your views?
2. What will be the impact of the fall in the value of dollar on the global economy, especially on the Indian economy?

Case Study – III

Mahendra International (India) Ltd. Imported spares of engine from a US producer for \$5000 per annum at a price of \$2.5 per piece. The average exchange rate during 2001-02 was ₹ 47.70/\$. The Indian company also imported the spares from a British manufacturer. In fact, it had diversified its import in view of reducing the risk associated with the supply.

The import from the USA was competitive in view of the fact the same spares imported from UK was slightly costlier. The American spares cost ₹ 119.25 per piece, while the British spares cost ₹ 120.00 per piece.

In 2002-03, US dollar appreciated to ₹ 48.40 with the result that the cost of American spares turned higher than the British spares. In the sequel of the appreciation of US dollar, the Indian importer cut its demand from 2000 pieces to 500 pieces. The loss to the US exporter was colossal. But at the same time the Indian importer suffered a lot. It had to pay a higher price for the US spares in terms of rupees.

And also, it had to divert its import from the USA to the UK in so far as the pound sterling did not appreciate during this period. All this happened in the wake of the exchange rate changes.

Case Study – IV

On a certain day in April, Euro dollar and sterling time deposit futures on LIFE are trading at the following prices:

Euro dollar:	June 90.85	September: 89.90
Sterling:	June 88.65	September: 87.50

A trader believes that in a couple of months sterling interest rates are going to rise relative to Eurodollar rates. Forecast for the profit.

REFERENCES

7. **Ahuja. H.L.** “MACRO ECONOMICS, THEORY AND PRACTICE, S.CHAND & SONS, *Ram Nagar, New Delhi. 2002.*
8. **Allan C.Shapiro** – “MULTI NATIONAL FINANCIAL MANAGEMENT” – *Practice hall, New Delhi 1995.*
9. A RETROSPECTIVE ON THE CLASSICAL GOLD STANDARD, 1821-1931 (*National Bureau of Economic Research Conference Report*), **Michael D. Bordo** (Editor), **Anna J. Schwartz** (Editor), 1984
10. **Buckley, Adrian:** MULTINATIONAL FINANCE, *Prentice Hall of India, New Delhi*
11. **Dennis, Geoffrey E.J** – “ INTERNATIONAL FINANCIAL FLOWS: STATISTICAL HAND BOOK” – **Grahms and Trotman.** *Sussex. U.K. 198.*
12. **Dewett K.K. and Verma J.D.** – REFRESHER COURSE IN “ECONOMIC THEORY” – **S.Chand** and company Ltd., *Ram Nagar, New Delhi 1997.*
13. *Exchange Rate Arithmetic* By **C. Jeevanandham.**
14. FOREIGN EXCHANGE, *International Finance and Risk Management* By **A. V. Rajwade** (2000).
15. FOREIGN EXCHANGE HANDBOOK By **H. P. Bhardwaj** (1994).
16. FOREIGN EXCHANGE STRATEGIES: SPOT, *Forward and Options* By **Berg. M. and G. Moore** (1991).
17. **Francisco L.Rivera – Batiz & Luis Rivera Bakz** – “INTERNATIONAL FINANCE AND OPEN ECONOMY”; “MACRO ECONOMICS”, *MAC Millan N.Y.1989.*
18. INTERNATIONAL FINANCIAL MANAGEMENT By **Apte P. G.**
19. INTERNATIONAL FINANCIAL MANAGEMENT By **Henning, C. N., W. Piggot And W. H. Scott.**
20. INTERNATIONAL FINANCIAL MANAGEMENT By **Mauric S, Dlevi.**
21. **Jeevanandam C.** “FOREIGN EXCHANGE” – **SULTAN CHAND & SONS,** *DARYAGAJ, New Delhi – 1998.*
22. **Murice, Levi:** INTERNATIONAL FINANCE, *McGraw Hill, Int. Ed., New York.*

23. **Quriun Brain Scott**. "THE NEW EURO MARKETS". *Mac Millan Press. London 1975*.
24. **Rita M.Rodrigues** – "INTERNATIONAL FINANCIAL MANAGEMENT", *practice – Hall, New Jersy 1976*.
25. **Shaprio, A.C**: MULTINATIONAL FINANCIAL MANAGEMENT, *Prentice Hall of India, New Delhi*
26. THE GOLD STANDARD AND RELATED REGIMES: COLLECTED ESSAYS (STUDIES IN MACROECONOMIC HISTORY), **Michael D. Bordo** (Editor), **Forrest Capie** (Editor), **Angela Redish**
27. THE GOLD STANDARD IN THEORY AND HISTORY, **Barry Eichengreen** (Editor), **Marc Flandreau**, 1997