UNIT-1: International Financial System

Global Financial Environment: Overview, International Monetary System: Exchange Rate Regimes, Manager in Global context, Balance of Payments : Understandings, Analysis & Interpretation. Evolution of international financial system–gold standard, Breton woods standard, floating exchange rate; currency board, sterilized and unsterilized intervention.

Global Financial Environment:

International financial management is also known as 'international finance'.

International finance is the set of relations for the creation and using of funds (assets), needed for foreign economic activity of international companies and countries. **Assets** in the financial aspect are considered not just as money, but money as the capital, i.e. the value that brings added value (profit). **Capital** is the movement, the constant change of forms in the cycle that passes through three stages: the monetary, the productive, and the commodity. So, finance is the monetary capital, money flow, serving the circulation of capital. If money is the universal equivalent, whereby primarily labor costs are measured, finance is the economic tool.

The **definition of international finance** is the combination of monetary relations that develop in process of economic agreements - trade, foreign exchange, investment - between residents of the country and residents of foreign countries.

Financial management is mainly concerned with how to optimally make various corporate financial decisions, such as those pertaining to investment, capital structure, dividend policy, and working capital management, with a view to achieving a set of given corporate objectives.

When a firm operates in the domestic market, both for procuring inputs as well as selling its output, it needs to deal only in the domestic currency. When companies try to increase their international trade and establish operations in foreign countries, they start dealing with people and firms in various nations. On this regards, as different nations have different currencies, dealing with the currencies becomes a problem-variability in exchange rates have a profound effect on the cost, sales and profits of the firm.

Globalization of the financial markets results in increased opportunities and risks on account of overseas borrowing and investments by the firm.

International Monetary System:

International Monetary System: An Overview

International monetary system is defined as a set of procedures, mechanisms, processes,

institutions to establish that rate at which exchange rate is determined in respect to other currency. To understand the complex procedure of international trading practices, it is pertinent to have a look at the historical perspective of the financial and monetary system.

The whole story of monetary and financial system revolves around 'Exchange Rate' i.e. the rate at which currency is exchanged among different countries for settlement of payments arising from trading of goods and services. To have an understanding of historical perspectives of international monetary system, firstly one must have a knowledge of exchange rate regimes. Various exchange rate regimes found from 1880 to till date at the international level are described briefly as follows:

Monetary System Before First World War: (1880-1914 Era of Gold Standard.

The oldest system of exchange rate was known as "Gold Species Standard" in which actual currency contained a fixed content of gold. The other version called "Gold Bullion Standard", where the basis of money remained fixed gold but the authorities were ready to convert, at a fixed rate, the paper currency issued by them into paper currency of another country which is operating in Gold. The exchange rate between pair of two currencies was determined by respective exchange rates against 'Gold' which was called 'Mint Parity'. Three rules were followed with respect to this conversion:

• The authorities must fix some once-for-all conversion rate of paper money issued by them into gold.

• There must be free flow of Gold between countries on Gold Standard.

• The money supply should be tied with the amount of Gold reserves kept by authorities. The gold standard was very rigid and during 'great depression' (1929-32) it vanished completely. In modern times some economists and policy makers advocate this standard to continue because of its ability to control excessive money supply.

The Gold Exchange Standard (1925-1931)

With the failure of gold standard during First World War, a much refined form of exchange regime was initiated in 1925 in which US and England could hold gold reserve and other nations could hold both gold and dollars/sterling as reserves. In 1931, England took its foot back which resulted in abolition of this regime.

Also to maintain trade competitiveness, the countries started devaluing their currencies in order to increase exports and demotivate imports. This was termed as "beggar-thy-neighbour " policy. This practice led to great depression which was a threat to war ravaged world after the second world war. Allied nations held a conference in New Hampshire, the outcome of which gave birth to two new institutions namely the International Monetary Fund (IMF) and the World Bank, (WB) and the system was known as Bretton Woods System which prevailed during (1946-1971) (Bretton Woods, the place in New Hampshire, where more than 40 nations met to hold a conference).

The Bretton Woods Era (1946 to 1971)

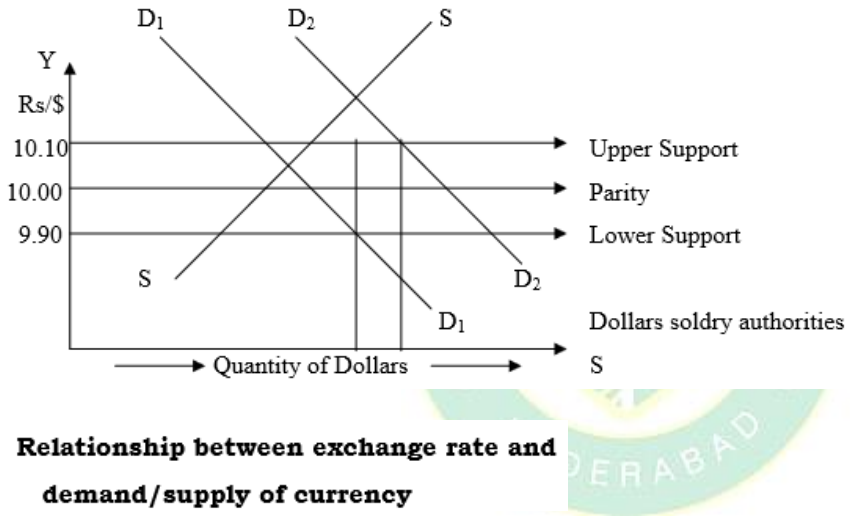
To streamline and revamp the war ravaged world economy & monetary system, allied powers held a conference in 'Bretton Woods', which gave birth to two super institutions - IMF and the WB. In Bretton Woods modified form of Gold Exchange Standard was set up with the following characteristics :

• One US dollar conversion rate was fixed by the USA as one dollar = 35 ounce of Gold

• Other members agreed to fix the parities of their currencies vis-àvis dollar with respect to permissible central parity with one per cent (± 1%) fluctuation on either side. In case of crossing the limits, the authorities were free hand to intervene to bring back the exchange rate within limits.

The mechanism of Bretton Woods can be understood with the help of the following illustration:

Suppose there is a supply curve SS and demand curve DD for Dollars. On Y-axis, let us draw price of Dollar with respect to Rupees (See fig.)



Relationship between exchange rate and demand/supply of currency

Suppose Indian residents start demanding American goods & services. Naturally demand of US Dollar will rise. And suppose US residents develop an interest in buying goods and services from India, it will increase supply of dollars from America.

Assume a parity rate of exchange is Rs. 10.00 per dollar. The ± 1% limits are therefore Rs. 10.10 (Upper support and Rs. 9.90 lower support).

As long as the demand and supply curve intersect within the permissible range; Indian authorities will not intervene.

Suppose demand curve shifts towards right due to a shift in preference of Indians towards buying American goods and the market determined exchange rate would fall outside the band, in this situation, Indian authorities will intervene and buy rupees and supply dollars to bring back the demand curve within permissible band. The vice-versa can also happen.

There can be two consequences of this intervention. Firstly, the domestic money supply, price

and G.N.P. etc. can be effected. Secondly, excessive supply of dollars from reserves may lead to exhaustion or depletion of forex reserves, there by preventing all possibilities to borrow dollars from other countries or IMF.

During Bretton Woods regime American dollar became international money while other countries needed to hold dollar reserves. US could buy goods and services from her own money. The confidence of countries in US dollars started shaking in 1960s with chronological events which were political and economic and on August 15, 1971 American abandoned their commitment to convert dollars into gold at fixed price of $35 per ounce, the currencies went on float rather than fixed. Though "Smithsonian Agreement" also failed to resolve the crisis yet by 1973, the world moved to a system of floating rates. (Note : Smithsonian Agreement made an attempt to resurrect the system by increasing the price of gold and widening the band of permissible variations around the central parity).

Post Bretton Woods Period (1971-1991)

Two major events took place in 1973-74 when oil prices were quadrupled by the Organisational of Petroleum Exporting Countries (OPEC). The result was seen in expended oils bills, inflation and economic dislocation; thereby the monetary policies of the countries were being overhauled. From 1977 to 1985, US dollar observed fluctuations in the oil prices which imposed on the countries to adopt a much flexible regime i.e. a hybrid between fixed and floating regimes. A group of European Nations entered into European Monetary System (EMS) which was an arrangement of pegging their currencies within themselves.

Flexible exchange rate regime

The flexible exchange rate regime that replaced the Bretton Woods system was ratified by the Jamaica Agreement. Following a spectacular rise and fall of the US dollar in the 1980s, major industrial countries agreed to cooperate to achieve greater exchange rate stability. The Louvre Accord of 1987 marked the inception of the managed-float system under which the G-7 countries would jointly intervene in the foreign exchange market to correct over- or undervaluation of currencies. On January 1,1999, eleven European countries including France and Germany adopted a common currency called the euro. The advent of a single European currency, which may eventually rival the US dollar as a global vehicle currency, will have major implications for the European as well as world economy.

Flexible exchange rate regimes were rare before the late twentieth century. Prior to World War II, governments used to purchase and sell foreign and domestic currency in order to maintain a desirable exchange rate, especially in accordance with each country’s trade policy. After a few experiences with flexible exchange rates during the 1920s, most countries came back to the gold standard. In 1930, before a new wave of flexible rate regimes started, prior to the war, over 50 countries were on the gold standard. However, most countries would abandon it just before World War II started.

In 1944, with the war almost over, international policy coordination was starting to make sense in everybody's mind. Along with other international organisations created during those years, the Bretton Woods agreement was signed, putting in place a new pegging system: currencies were pegged to the dollar, which in turn was pegged to gold. It was not until 1973, when Bretton Woods completely collapsed, that countries started to implement flexible exchange rate regimes.

Flexible exchange rates can be defined as *exchange rates* determined by global *supply and demand* of currency. In other words, they are prices of foreign exchange determined by the market, that can rapidly change due to supply and demand, and are not pegged nor controlled by central banks. The opposite scenario, where central banks intervene in the market with purchases and sales of foreign and domestic currency in order to keep the exchange rate within limits, also known as bands, is called *fixed exchange rate*.

Within this pure definition of flexible exchange rate, we can find two types of flexible exchange rates: *pure floating regimes* and *managed floating regimes*. On the one hand, pure floating regimes exist when, in a flexible exchange rate regime, there are absolutely no official purchases or sales of currency. On the other hand, managed (also called dirty) floating regimes, are those flexible exchange rate regimes where at least some official intervention happens.

Balance of Payments

Balance of Payments (BOP), fundamentals of BOP, Accounting components of BOP, factors affecting international trade flows, agencies that facilitate international flows. Indian BOP trends. International Monetary System: Evolution, gold standard, Bretton Woods's system, the flexible exchange rate regime, evaluation of floating rates, the current exchange rate arrangements, the economic and monetary union (EMU).

Balance Of Payments: Fundamentals, Accounting Components

Balance of payments **(BoP)** accounts are an accounting record of all monetary transactions between a country and the rest of the world. These transactions include payments for the country's exports and imports of goods, services, financial capital, and financial transfers.

The Bop is a collection of accounts conventionally grouped into three main categories with subdivisions in each. The three main categories are: (a) **The Current Account:** Under this are included imports and exports of goods and services and uni-lateral transfers of goods and services. (b**) The Capital Account**: Under this are grouped transactions leading to changes in foreign financial assets and liabilities of the country. (c) **The Reserve Account**: In principle this is no different from the capital account in as much as it also relates to financial assets and liabilities. However, in this category only "reserve assets" are included.

The IMF definition: The International Monetary Fund (IMF) use a particular set of definitions for the BOP accounts, which is also used by the Organization for Economic Cooperation and Development (OECD), and the United Nations System of National Accounts (SNA). The main difference in the IMF's terminology is that it uses the term "financial account" to capture transactions that would under alternative definitions be recorded in the capital account. The IMF uses the term capital account to designate a subset of transactions that, according to other usage, form a small part of the overall capital account.[6] The IMF separates these transactions out to form an additional top level division of the BOP accounts. Expressed with the IMF definition, the BOP identity can be written:

Current account financial account capital account balancing item=0.
The IMF uses the term current account with the same meaning as that used by other organizations, although it has its own names for its three leading subdivisions, which are:
The goods and services account (the overall trade balance)
The primary income account (factor income such as from loans and investments)
The secondary income account (transfer payments)

Current account of balance of Payment

Current Account transactions

The Current accounts records the transaction in merchandise and invisibles with the rest of the world. Merchandise covers imports and exports and invisibles include travel transportation insurance, investment and other services. The current account mainly consists of 4 types of transactions.

i) Exports and imports of goods: Exports of goods are credits (+) to the current account. Imports of goods are debits (-) to the current account.
ii) Exports and imports of services: Exports of services are credits (+) to the current account. Imports of services are debits (-) to the current account.

Interest payments on international investments

Interest, dividends and other income received on U.S. assets held abroad are credits (+). Interest, dividends and payments made on foreign assets held in the U.S. are debits (-). Since 1994, the U.S. has run a net debit in the investment income account: more payments are made to foreigners than foreigners make to U.S. investors.

Current transfers

Remittances by Americans working abroad, pensions paid by foreign countries to their citizens living in the U.S., aid offered by foreigners to the U.S. count as credits (+).
Remittances by foreigners working in the U.S., pensions paid by the United States to its citizens living abroad, aid offered to foreigners by the U.S. count as debits (-) As expected the U.S. runs a deficit in current transfers.
The sum of these components is known as the current account balance. A negative number is called a current account deficit and a positive number called a current account surplus. As expected, given that it runs a surplus only in the services component of the current account, the

U.S. runs a substantial current account deficit.

Capital account of Balance of payment

In the case of the capital account an increase (decrease) in the county foreign financial assets are debit (credit) whereas any increase (decrease) in the country foreign financial liabilities are credits (debits). The transaction under the Capital account is classified as:

- Foreign Investment
- Loans
- Banking Capital
- Rupee debt services
- Other debt capital

Loans include the concessional loans received by the government' or public sector bodies , long term loan and medium term borrowings from the commercial capital market in the form of loans Bond issue and short term credits. Disbursement received by Indian resident entities is the credit Items while payment and loans made by the Indians are the credit items

All inflow of the foreign capital comes credit item of the Balance of payment/Banking capital covers the changes in the foreign assets and liabilities of commercial banks whether privately owned or the comparative and government owned. An decrease in assets and increase in liability is a credit item. The item Rupee debt services defined as the cost of meeting inters payments and regular contractual repayments of the principal of a loan along with the any administrate charges in rupee by India.

2.1.1 Factors affecting the components of BOP account

Exports of goods and services affected by following factors

- The prevailing rate of domestic currency
- Inflation rate
- Income of foreigners
- World price of the commodity
- Trade barriers.

Imports of Goods and services

- Level of Domestic Income
- International prices
- Inflation rate
- Value of Domestic Currency
- Trade Barriers

2.1 Factors affecting the international financial Market

i) Cost of Labor: Firms in countries where labor costs are low commonly have an advantage when competing globally, especially in labor intensive industries

ii) Inflation: Current account decreases if inflation increases relative to trade partners.

iii) National Income: Current account decreases if national income increases relative to other countries.

iv) Government Policies: can increase imports through:

v) Restrictions on imports
vi) Subsidies for exporters
- Lack of Restriction on piracy
- Environmental restrictions
- Labor laws
- Tax breaks
- Country security laws

vii) Exchange Rates: current account decreases if currency appreciates relative to other currencies.

2.1.1 Impact of Government Policies:

i) **Restrictions on Imports:** Taxes (tariffs) on imported goods increase prices and limit consumption. Quotas limit the volume of imports.
ii) **Subsidies for Exporters:** Government subsidies help firms produce at a lower cost than their global competitors.
iii) **Restrictions on Piracy**: A government can affect international trade flows by its lack of restrictions on piracy.
iv) **Environmental Restrictions**: Environmental restrictions impose higher costs on local firms, placing them at a global disadvantage compared to firms in other countries that are not subject to the same restrictions.
v) **Labor Laws**: countries with more restrictive laws will incur higher expenses for labor, other factors being equal.
vi) **Business Laws**: Firms in countries with more restrictive bribery laws may not be able to compete globally in some situations.
vii) **Tax Breaks**: Though not necessarily a subsidy, but still a form of government financial support that might benefit many firms that exports products.
viii) **Country Security Laws**: Governments may impose certain restrictions when national security is a concern, which can affect on trade.

Impact of Exchange Rates

Effect of exchange rate on balance of trade deficit:

When a home currency is exchanged for a foreign currency to buy foreign goods, then the home currency faces downward pressure, leading to increased foreign demand for the country's products. On the other way, Exchange rates will not automatically correct any international trade balances when other forces are at work.

Evolution of international financial system:

Six aspects provide importance to IFM

i) Specialization of some goods and services

ii) Opening of new economies
iii) Globalization of firms
iv) Emergence of new form of business
v) Growth of world trade
vi) Development process of Nations

Nature and Scope Of International Financial Management

International finance-the finance function of a multinational firm has two functions-treasury and control. The treasurer is responsible for financial planning analysis, fund acquisition, investment financing, cash management, investment decision and risk management. Controller deals with the functions related to external reporting, tax planning and management, management information system, financial and management accounting, budget planning and control, and accounts receivables etc.

Multinational finance is multidisciplinary in nature. While an understanding of economic theories and principles is necessary to estimate and model financial decisions, financial accounting and management accounting help in decision making in financial management at multinational level.

Because of changing nature of environment at international level, the knowledge of latest changes in forex rates, volatility in capital market, interest rate fluctuations, macro level changes, micro level economic indicators, savings, consumption pattern, interest preference, investment behavior of investors, export and import trends, competition, banking sector performance, inflationary trends, demand and supply conditions etc. is required by the practitioners of international financial management.

Nature of the financial Management

- IFM is concerned with financial decisions taken in international business.
- IFM is an extension of corporate finance at international level.
- IFM set the standard for international tax planning and international accounting
- IFM includes management of exchange rate risk.

Scope of the financial Management:

- IFM includes working capital management of multinational enterprises.

Scope of IFM includes

- Foreign exchange markets, international accounting, exchange rate risk management etc.
- It also includes management of finance functions of international business.
- IFM sorts out the issues relating to FDI and foreign portfolio investment.
- It manages various risks such as inflation risk, interest rate risks, credit risk and exchange rate risk.
- It manages the changes in the foreign exchange market.
- It deals with balance of payments in global transactions of nations.
- Investment and financing across the nations widen the scope of IFM to international accounting standards.
- It widens the scope of tax laws and taxation strategy of both parent country and host country.

- It helps in taking decisions related to international business.

International Financial Management Different From Financial Management At Domestic Level

The important distinguishing features of international finance from domestic financial management are discussed below:

Foreign exchange risk

An understanding of foreign exchange risk is essential for managers and investors in the modern day environment of unforeseen changes in foreign exchange rates. In a domestic economy this risk is generally ignored because a single national currency serves as the main medium of exchange within a country. When different national currencies are exchanged for each other, there is a definite risk of volatility in foreign exchange rates. The present International Monetary System set up is characterized by a mix of floating and managed exchange rate policies adopted by each nation keeping in view its interests. In fact, this variability of exchange rates is widely regarded as the most serious international financial problem facing corporate managers and policy makers.

At present, the exchange rates among some major currencies such as the US dollar, British pound, Japanese yen and the euro fluctuate in a totally unpredictable manner. Exchange rates have fluctuated since the 1970s after the fixed exchange rates were abandoned. Exchange rate variation affect the profitability of firms and all firms must understand foreign exchange risks in order to anticipate increased competition from imports or to value increased opportunities for exports.

Thus, changes in the exchange rates of foreign currencies results in foreign exchange risks.

Political risk

Another risk that firms may encounter in international finance is political risk. Political risk ranges from the risk of loss (or gain) from unforeseen government actions or other events of a political character such as acts of terrorism to outright expropriation of assets held by foreigners. The other country may seize assets of the company without any reimbursements by utilizing their sovereign right, and some countries may restrict currency remittances to the parent company. MNCs must assess the political risk not only in countries where it is currently doing business but also where it expects to establish subsidiaries. The extreme form of political risk is when the sovereign country changes the 'rules of the game' and the affected parties have no alternatives open to them.

Example: In 1992, Enron Development Corporation, a subsidiary of a Houston based Energy Company, signed a contract to build India's longest power plant. Unfortunately, the project got cancelled in 1995 by the politicians in Maharashtra who argued that India did not require the power plant. The company had spent nearly $ 300 million on the project. The Enron episode highlights the problems involved in enforcing contracts in foreign countries.

Thus, political risk associated with international operations is generally greater than that associated with domestic operations and is generally more complicated.

Expanded opportunity sets

When firms go global, they also tend to benefit from expanded opportunities which are available now. They can raise funds in capital markets where cost of capital is the lowest. In addition, firms can also gain from greater economies of scale when they operate on a global basis.

Market imperfections

The final feature of international finance that distinguishes it from domestic finance is that world markets today are highly imperfect. There are profound differences among nations' laws, tax systems, business practices and general cultural environments. Imperfections in the world financial markets tend to restrict the extent to which investors can diversify their portfolio. Though there are risks and costs in dealing with these market imperfections, they also offer managers of international firms abundant opportunities.

Tax and Legal system

Tax and legal system varies from one country to another country and this leads to complexity in their financial implications and hence give rise to tax and legal risks.

Inflation

Inflation rate differs from country to country. Higher inflation rates in few countries denote inflation risks.

Major turmoil influencing International financial Market

Frictions on International financial market can be in the form of

Government controls

With the help of different controlling procedures, government tries to control international financial flows like maintaining the multiple exchange rates, taxes on international flows and constructs on outflow of funds. These slower the pace of international/foreign investment flows

Different tax laws

Capital gains, interest income, dividend and other financial transactions reduce the post tax returns and thus restrict the scope of international portfolio investment.

Implicit and explicit transaction costs

Trading fees/commission, bid ark speared is a form of Implicit and explicit transaction which affects the International financial market. The transactions costs is less in developed countries compared to newly market economies/countries. Transactions costs per unit decreases when the size of transaction is large. However, small investors are not benefited from this strategy.

Recent changes in IFM

Emergence of Euro market in 1960's the major cause for development and growth of IFM. This market resulted in

- A series of parallel money markets free from regulations
- led to internationalization of banking business and
- Emergence of innovative funding techniques and securities.

International financial markets have undergone rapid and extensive changes in the recent past.

- Dramatic events in global financial markets, including the Asian crisis, the Russian crisis, and the near-collapse of Long Term Capital Management (LTCM), in 2008, in US and other European countries which was a highly leveraged hedge fund with enormous trading positions.

- Remarkable developments in stock prices around the world, and in particular in stocks in the telecommunications and internet sectors. Many of these so-called "tech. stocks", which experienced sharp price increases in late 1999 and early 2000.
- After 1980's the pace of change has become too fast. This period saw emergence of new financial instruments, securities, methods of settlement and persons involved in the market. Development of information and communication technology furthered the change process

sterilized and unsterilized intervention :

The central banks of most major economies allow their foreign exchange rates to float, since this allows capital to find its most efficient uses worldwide and because it allows the central banks to set domestic interest rates that comports with their monetary policy. Hence, usually the markets determine what the foreign exchange rates will be.

Some countries, such as China, where exports are an important part of the economy, routinely intervene in the FX markets to keep their currency from appreciating. However, these countries must give up their ability to control their own interest rates, since higher interest rates draws capital seeking a higher return from around the world, which would cause the domestic currency to appreciate. Some countries do attempt to maintain some control over their domestic policy while also maintaining the foreign exchange rate of their currency within certain bounds by instituting capital controls. China, for instance, restricts the trading of its currency.

Central banks that want to maintain control of their domestic monetary policy rarely intervene in the foreign exchange markets for an extended duration, because market forces will quickly return the exchange rate to the currency's supply-demand equilibrium after the intervention ends. Interventions, therefore, are conducted to blunt large currency moves caused by major events or market uncertainties that would normally have only a temporary effect on the exchange rate. For instance, during the recent Japanese earthquake and tsunami, the Japanese yen was increasing in strength because it was feared that insurance companies would have to sell foreign assets to convert to yen to pay for damages and such a fear caused many traders involved in the yen carry trade to unwind their positions, strengthening the yen even more. Because a strong yen hurts Japanese exports, the central banks of the G-7 economies decided to intervene by selling yen to lower its exchange rate.

UNIT-2 : International Financial Markets

Eurocurrency market, international bond market, international equity market, international

money market; global financial institutions–IMF, Bank for International Settlements; international banking-euro bank, types of banking offices-correspondent bank, representative office, foreign branch, subsidiary bank, offshore bank; international financial instruments–euro CP, Eurobonds, foreign bonds, global bonds, euro equity, ADR, GDRs.

Eurocurrency market, international bond market, international equity market, international money market;

Euro currency market

Europeans wished to hold their assets outside their own country or in currencies which is not locally denominated. These investors were driven by the twin concerns of avoiding taxes in their own country and protecting themselves against falling values of domestic currency. Dollar denominated, Euro bonds were designed to address these issues.

These bonds were in bearer forms. Hence, there was no ownership and no tax withheld. The term Euro is used because the transactions originated in the Europe, mainly London. But later on expanded fast to the countries like Honk Kong and Singapore in the far East-at present more than half of the transactions in the Euro markets take place outside the Europe.

Thus, it is evident that the term 'Eurodollar' is a misnomer. 'Foreign Currency Market' would be the appropriate term to describe this expanding market. The term 'Eurodollar' came to be used because the market had its origin and earlier developments with dollar transactions in the European money markets. Despite the emergence of other currencies and the expansion of the market to other areas, Europe and the dollar still hold the key to the market. Today, the term Eurocurrency market is in popular use.

Now, the 'Eurodollar Market' consists of Asian dollar market, Rio dollar market, Euro- yen market, etc., as well as Euro-sterling, Euro-Swiss francs, Euro-French francs, Euro- Deutsche marks, and so on. In short, in these markets, the commercial banks accept interest bearing deposits denominated in a currency other than the currency of the country in which they operate and they re-lend these funds either in the same currency or in the currency of the country in which they operate or in the currency of a third country.

Its Annual Report in 1966, the Bank for International Settlements (BIS) described the Eurodollar phenomenon as "The acquisition of dollars by banks located outside the United States, mostly through the taking of deposits, but also to some extent by swapping other currencies into dollars, and the re-lending of these dollars, often after re-depositing with other banks, to non-bank borrowers anywhere in the world."

The Important Characteristics of the Eurocurrency market are the following:

i) It is an International Market and it is under no National Control:

The Eurocurrency market has emerged as the most important channel for mobilizing and

deploying funds on an international scale. By its very nature, the Eurodollar market is outside the direct control of any national monetary policy. "It is aptly said that the dollar deposits in London are outside United States control because they are in London and outside British control because they are in dollars." The growth of the market owes a great deal to the fact that it is outside the control of any national authority.

ii) It is a Short-Term Money Market:

The deposits in this market range in maturity from one day to several months and interest are paid on all of them. Although some Eurodollar deposits have a maturity of over one year, Eurodollar deposits are predominantly a short-term instrument. The Eurodollar market is viewed in most discussions more as a credit market- a market in dollar bank loans-and as an important accessory to the Eurobond market.

iii) The Eurodollar Loans are Generally for Short Periods:

Three months or less, Eurobonds being employed for longer-term loans. The Eurobonds developed out of the Eurodollar market to provide longer-term loans than was usual with Eurodollars. A consortium of banks and issuing houses usually issues these bonds.

Euro credit market

Euro credit helps the flow of capital between countries and the financing of investments at home and abroad. A major function of banks is matching surplus units (who deposit at the bank) with deficit units (who borrow from the bank). Being able to do this internationally, both across borders and across currencies improves both liquidity and efficiency in the markets for financing.

Banks may also engage in syndicated loans in the euro credit market, where a loan is made by a group (syndicate) of banks. Syndicated loans reduce the risk of borrower default for each individual bank loaning funds and are often found where the size of the loan is too big for one bank to do by itself. Often, the banks in a syndicate will be headquartered in different countries but lending in one currency- an example of how the euro credit market can work to improve the flow of funds internationally.

Euro bond market

A Eurobond is debt instrument that's denominated in a currency other than the home currency of the country or market in which it is issued. Eurobonds are frequently grouped together by the currency in which they are denominated, such as eurodollar or Euro-yen bonds. Since Eurobonds are issued in an external currency, they're often called external bonds. Eurobonds are important because they help organizations raise capital while having the flexibility to issue them in another currency.

Issue of Eurobonds is usually handled by an international syndicate of financial institutions on behalf of the borrower, one of which may underwrite the bond, thus guaranteeing the purchase of the entire issue.

A foreign bond may define as an international bond sold by a foreign borrower but denominated in the currency of the country in which it is placed. It underwrites and sells by a national underwriting syndicate in the lending country. Thus, a US company might float a bond issue in the London capital market, underwritten by a British syndicate and denominated in sterling.

The bond issue would sell to investors in the UK capital market, where it would quote and traded. Foreign bonds issued outside the USA call Yankee bonds, while foreign bonds issued in Japan are called Samurai bonds. Canadian entities are the major floaters of foreign bonds in the USA.

Types Of Eurobonds:

There are three types of Eurobonds, of which two are international bonds. A domestic bond is a bond issue in a country by a resident of that country.
There are several different types of Eurobonds.

i. **Straight Bond:** Bond is one having a specified interest coupon and a specified maturity date. Straight bonds may issue with a floating rate of interest. Such bonds may have their interest rate fixed at six-month intervals of a stated margin over the LIBOR for deposits in the currency of the bond. So, in the case of a Eurodollar bond, the interest rate may base upon LIBOR for Eurodollar deposits.

i. **Convertible Eurobond:** The Eurobond is a bond having a specified interest coupon and maturity date. But, it includes an option for the hold to convert its bonds into an equity share of the company at a conversion price set at the time of issue.

i. **Medium-term Eurobond:** Medium-term **Euro notes** are shorter-term Eurobonds with maturities ranging from three to eight years. Their issuing procedure is less formal than for large bonds. Interest rates on Euro notes can fix or variable. Medium-term Euro-notes are similar to medium-term roll-over Eurodollar credits. The difference is that in the **Eurodollar market** lenders hold a claim on a bank and not directly on the borrower.

Characteristics of Euro bonds or Features of Eurobonds

The following characteristics of euro bonds below are

i. **Straight bonds:** the fixed interest rate at periodic intervals, usually annually.
ii. **Floating-rate notes (FRNs):** rollover pricing payment usually six months interest stated in terms of a spread over some reference rate.
iii. **Zero-coupon bonds:** discount securities, sold either at a fraction of face value and redeemed at face value, or sold at face value and redeemed at a premium.
iv. **Convertible bonds:** can exchange for some other type of asset: stock, gold, oil, other bonds.
v. **Mortgage-backed Eurobonds:** backed by a pool of mortgages, or other bonds Institutions which would otherwise exclude from Eurobond market can get access.
vi. **Dual-currency bonds:** purchased in one currency, coupon or principal paid in a second currency.
vii. The following Eurobonds features are:

- The issuing technique takes the form of a placing rather than formal issuing; this avoids national regulations on new issues.
- Eurobonds place simultaneously in many countries through syndicates of underwriting banks.
- Unlike foreign bonds, Eurobonds sale in countries other than that of the currency of denomination; thus dollar-denominated Eurobonds sale outside the U.S.A.
- The interest on Eurobonds is not subject to withholding tax.

global financial institutions–IMF, Bank for International Settlements,Offshore bank

international financial instruments–euro CP, Eurobonds, foreign bonds, global bonds, euro equity,

ADR, GDRs.

American Depository Receipts (ADRs) are stocks that are sold in the US market but represent ownership of the underlying shares in a foreign company. An ADR trades in US dollars and they allow investors to avoid the risk of transacting in a foreign currency. Before the introduction of American Depository Receipts, investors faced difficulties in buying shares of foreign companies and dealing with different currency values.

With American Depository Receipts, investors buy the stocks from US banks that purchase a bulk of shares from the foreign company through a custodian bank in the home country. The US bank then bundles the shares and reissues them on the New York Stock Exchange (NYSE) and NASDAQ. Investing in ADRs can give investors a more diversified portfolio and protect them from political, currency and inflationary risks.

Examples of ADRs

Diageo Plc ADR

Diageo is an alcoholic beverage company that is located in the United Kingdom. It's been making efforts to expand its market in the United States. It trades on the NYSE under the symbol DEO. One Diageo ADR represents four ordinary DEO shares. Diageo's dividend yield, as of 2018, is about 3%.

Teva Pharmaceutical ADR

Teva Pharmaceutical Industries is a Tel Aviv based manufacturer that specializes in generic drugs and specialty medicine. It trades on the NYSE under the symbol TEVA. Teva returns a dividend yield, as of 2018, of approximately 3%.

GlaxoSmithKline ADR

GlaxoSmithKline is a global pharmaceutical and healthcare company that is located in the United Kingdom. Established in 1999, it is now one of the market leaders in the healthcare industry. It trades on the NYSE under the code GSK. With a broad line of products, the outlook for GlaxoSmithKline looks promising. As of 2018, it pays a dividend yield of around 5%.

Infosys ADR

Infosys Limited is an India-based IT company that provides business consulting, information technology, and outsourcing services. It was ranked as the second-largest Indian IT company in 2017. It trades on the NYSE under the symbol INFY.

Siemens AG ADR

Siemens is an energy conglomerate company that is headquartered in Germany. It is the largest manufacturing company in Europe. Siemens specializes in electrification, automation, and digitization. Siemens delisted from the New York Stock Exchange in May 2014. It maintains its ADR program on a Level I basis and trades in the US on an over-the-counter basis. Two Siemens ADRs traded in US dollars equals one Siemens ordinary share. Siemens' dividend yield, as of 2018, is about 3.4%.

Novartis AG ADR

Novartis is a Swiss multinational healthcare company that is headquartered in Basel, Switzerland. It is one of the largest pharmaceutical companies in the world in terms of sales and market capitalization. It is listed on the NYSE under the trading symbol NVS. The company owes much of its current success to M&A transactions.

Total S.A. ADR

Total S.A. is a France-based energy company, the world's fourth-largest international oil and gas company. As an energy company, its stock prices are affected by the volatility of oil prices. The dividend yield, as of 2018, from Total ADRs is about 5.5%.

Determining the Price of ADRs

ADR Ratio

An American Depository Receipt represents a specified number of the regular stock shares of the foreign company. It may be expressed as a fraction of a share or multiple shares of the foreign company. For example, as noted above, one Diageo ADR represents four Diageo Plc ordinary shares. This can be expressed as a ratio, i.e., 4:1. Similarly, one ADR could represent half of an ordinary share of the foreign company.

Demand and Supply

Once an American Depository Receipt is listed on the NYSE, its price is determined by the forces of demand and supply. In most cases, the price of an ADR tends to follow the price of its parent shares trading in the country of origin. For example, if a Chinese company sells its ADR on the NYSE, the price will typically mirror the price of the company's shares on the Shanghai Stock Exchange. If a major event occurs in the foreign country, e.g., a lawsuit loss or a ban on the company's products, the effects of the event will be reflected in the price of the ADRs.

However, sometimes the prices of the ADR and the ordinary shares in the foreign company may vary somewhat, creating an arbitrage opportunity. Large investors may move to capitalize on the price discrepancy, which is usually only temporary. Arbitrage is common among institutional investors with access to more trading capital, trading specialists, intelligent software, and up-to-date news required to exploit such opportunities and earn profits from short-term price differences.

Risks of Investing in American Depository Receipts

Although American Depository Receipts trade in the domestic US markets in dollars, they possess some degree of risk that US investors should take into consideration. Here are some of the risks that face ADRs:

Currency Risk

A foreign company may be profitable but its ADRs may lose value due to currency exchange rate fluctuations. When buying American Depository Receipts, consider the stability of the ADR's home currency and its history against the US dollar. Currency fluctuations can result in significant losses for investors.

Political Risk

An ADR is affected by the home country's political stability and sanctions. Before investing in an ADR, research the current situation in the issuer's home country. If there are trading sanctions related to the country, the ADR prices will be affected.

Inflationary Risk

Inflation risk is an extension of the currency risk. If the home country experiences high inflation, this will make its currency less valuable, and that will affect the ADR prices.

GDR

A global depositary receipt (GDR) is a bank certificate issued in more than one country for shares in a foreign company.

Understanding Global Depositary Receipt

A global depositary receipt (GDR) is very similar to an American depositary

receipt (ADR). It is a type of bank certificate that represents shares in a foreign company, such that a foreign branch of an international bank then holds the shares. The shares themselves trade as domestic shares, but, globally, various bank branches offer the shares for sale. Private markets use GDRs to raise capital denominated in either U.S. dollars or euros. When private markets attempt to obtain euros instead of U.S. dollars, GDRs are referred to as EDRs.

Investors trade GDRs in multiple markets, as they are considered to be negotiable certificates. Investors use capital markets to facilitate the trade of long-term debt instruments and for the purpose of generating capital. GDR transactions in the international market tend to have lower associated costs than some other mechanisms that investors use to trade in foreign securities.

Shares Per Global Depositary Receipt

Each GDR represents a particular number of shares in a specific company. A single GDR can represent anywhere from a fraction of a share to multiple shares, depending on its design. In a situation that involves multiple shares, the receipt value shows an amount higher than the price for a single share. Depository banks manage and distribute various GDRs and function in an international context.

Trading of Global Depositary Receipt Shares

Companies issue GDRs to attract interest by foreign investors. GDRs provide a lower-cost mechanism in which these investors can participate. These shares trade as though they are domestic shares, but investors can purchase the shares in an international marketplace. A custodian bank often takes possession of the shares while the transaction processes, ensuring both parties a level of protection while facilitating participation.

Brokers who represent the buyer manage the purchase and sale of GDRs. Generally, the brokers are from the home country and are sellers within the foreign market. The actual purchase of the assets is multi-staged, involving a broker in the investor's homeland, a broker located within the market associated with the company that has issued the shares, a bank representing the buyer, and the custodian bank.

If an investor desires, brokers can also sell GDRs on their behalf. An investor can sell them as-is on the proper exchanges, or the investor can convert them into regular stock for the company. Additionally, they can be cancelled and returned to the issuing company.

UNIT:3 Foreign Exchange Market and International Parity Relationships:

Participants in foreign exchange market, structure of foreign exchange market in India;

quotes in spot market and forward market, triangular arbitrage; nominal effective exchange rate (NEER), real effective exchange rate (REER); currency derivatives–forwards, futures, forward rate agreement, options, swaps; Foreign Exchange Management Act ; BOP, BOP trends in India; current account convertibility, capital account convertibility, Tara pore Committee Report; Parity Conditions- Purchasing Power Parity, Interest Rate Parity, International Fisher Effect, Unbiased Forward Rate Theory. International debt crises and currency crises-Asian currency crisis, Greek debt crisis.

Participants in foreign exchange market, structure of foreign exchange market in India;

Function and Structure of the Forex markets, major participants, types of transactions and settlements dates, foreign exchange quotations. Process of arbitrage, speculation in the forward market.
Currency futures and options markets, overview of the other markets, Euro currency market, Euro credit market,Euro bond market, international stock market.

3.1 Foreign Exchange Market

Foreign exchange market is the market in which foreign currencies are bought and sold. The buyers and sellers include individuals, firms, foreign exchange brokers, commercial banks and the central bank. Like any other market, foreign exchange market is a system in which the transactions are not confined to only one or few foreign currencies. There are a large number of foreign currencies which are traded, converted and exchanged in the foreign exchange market.

The foreign exchange market assists international trade and investment by enabling currency conversion. For example, it permits a business in the United States to import goods from the European Union member states especially Euro zone members and pay Euros, even though its income is in United States dollars. The foreign exchange market (forex, FX, or currency market) is a form of exchange for the global decentralized trading of international currencies.

Characteristics of foreign exchange market

- Electronic market
- Geographical Dispersal
- Transfer of purchasing power
- Intermediary Volume
- Provision of credit
- Minimizing Risk.

3.2 Functions of Foreign Exchange Market

Foreign exchange market performs the following three functions

3.2.1 Transfer Function

The basic function of the foreign exchange market is to facilitate the conversion of one currency into another, i.e., to accomplish transfers of purchasing power between two countries. This transfer of purchasing power is affected through a variety of credit instruments, such as telegraphic transfers, bank draft and foreign bills. In performing the transfer function, the foreign exchange market carries out payments internationally by clearing debts in both directions simultaneously, analogous to domestic

clearings.

3.2.2Credit Function

It provides credit for foreign trade. Bills of exchange, with maturity period of three months, are generally used for international payments. Credit is required for this period in order to enable the importer to take possession of goods, sell them and obtain money to pay off the bill.

3.2.3Hedging Function

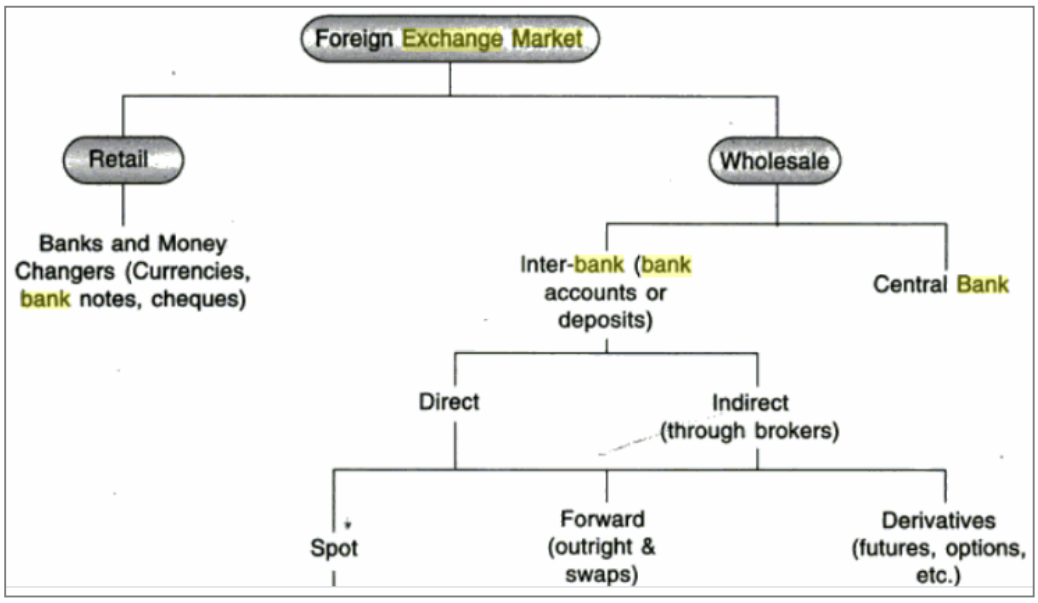
A third function of the foreign exchange market is to hedge foreign exchange risks. Hedging means the avoidance of a foreign exchange risk. In a free exchange market when exchange rate, i. e., the price of one currency in terms of another currency, change, there may be a gain or loss to the party concerned. Under this condition, a person or a firm undertakes a great exchange risk if there are huge amounts of net claims or net liabilities which are to be met in foreign money. Exchange risk as such should be avoided or reduced. For this the exchange market provides facilities for hedging anticipated or actual claims or liabilities through forward contracts in exchange. A forward contract which is normally for three months is a contract to buy or sell foreign exchange against another currency at some fixed date in the future at a price agreed upon now. No money passes at the time of the contract. But the contract makes it possible to ignore any likely changes in exchange rate. The existence of a forward market thus makes it possible to hedge an exchange position. Foreign bills of exchange, telegraphic transfer, bank draft, letter of credit, etc., are the important foreign exchange instruments used in the foreign exchange market to carry out its functions.

Minimizing Foreign Exchange Risk

The foreign exchange market provides "hedging" facilities for transferring foreign exchange risk to someone else.

Thus, the foreign exchange market is merely a part of the money market in the financial centers. It is a place where foreign moneys are bought and sold. The buyers and sellers of claim on foreign money and the intermediaries together constitute a foreign exchange market. It is not restricted to any given country or a geographical area. Thus, the foreign exchange market is the market for a national currency (foreign money) anywhere in the world, as the financial centers of the world are united in a single market. There is a wide variety of dealers in the foreign exchange market. The most important among them are the banks. Banks dealing in foreign exchange have branches with substantial balances in different countries. Through their branches and correspondents, the services of such banks, usually called “Exchange Banks,” are available all over the world.

1.3 Structure of the Foreign Exchange Market



3.3.1Retail Market

Transactions are exchange of currenct, bank draft, bank notes ordinary and traveller' s cheques etc. Retail banking consists of a large number of small customers who consume personal banking and small business services. Retail banking is largely intra-bank: the bank itself.

3.3.2Wholesale markets

The wholesale market comprises of commercial banks and investment banks. This is broadly classified as inter-bank market and central bank market.

Wholesale banking typically involves a small number of very large customers such as large corporate and governments, Wholesale banking is largely interbank: banks use the inter -bank markets to borrow from or lend to other banks, to participate in large bond issues, and to engage in syndicated lending.

3.3.2.1Inter-bank

The interbank network consists of a global network of financial institutions that trade currencies between each other to manage exchange rate and interest rate risk. The largest participants in this network are private banks.

Most transactions within the interbank network are for a short duration, anywhere between overnight to six months. The interbank market is not regulated.

a) Spot market

Spot market refers to the transactions involving sale and purchase of currencies for immediate delivery. In practice, it may take one or two days to settle transactions. Transactions are affected at prevailing rate of exchange at that point of time and delivery of foreign exchange is affected instantly. The exchange rate that prevails in the spot market for foreign exchange is called Spot Rate.

b) Forward Market

A market in which foreign exchange is bought and sold for future delivery is known as Forward Market. It deals with transactions (sale and purchase of foreign exchange) which are contracted today but implemented sometimes in future. Exchange rate that prevails in a forward contract for purchase or sale of foreign exchange is called Forward Rate. Thus, forward rate is the rate at which a future contract for foreign currency is made.

c) Derivatives

Within the fields of trading and finance, a derivative is considered to be an instrument used for investment via a contract. Its value is "derived" from (or based upon) that of another asset, typically referred to as the underlying asset or simply "the underlying." In other words, a derivative contract is an agreement that allows for the possibility to purchase or sell some other type of financial instrument or non-financial asset. Common types of derivative contracts include options, forwards, futures and swaps.

- **Future Market:** Standardized forward contracts are called futures contracts and traded on a futures exchange. A futures contract (more colloquially, futures) is a standardized contract between two parties to buy or sell a specified asset of standardized quantity and quality for a price agreed upon today (the futures price or strike price) with delivery and payment occurring at a specified future date.
- **Option Market:** A currency option gives an investor the right, but not the obligation, to buy or sell a quantity of currency at a pre-established price on or before the date that the option expires. The right to sell a currency is known as a "call option" and the right to buy is known as a "put option." Options can be understood as a type of insurance where buyers or sellers can take advantage of more favourable prices should market conditions change after the option is purchased.
- **Swap Market:** The idea of a swap by definition normally refers to a simple exchange of property or assets between parties. A currency swap also involves the conditions determining the relative value of the assets involved. That includes the exchange rate value of each currency and the interest rate environment of the countries that have issued them. A foreign exchange swap, forex swap, or FX swap is a simultaneous purchase and sale of identical amounts of one currency for another with two different value dates (normally spot to forward).

3.3.2.2Central Bank

National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market. They work as the lender of the last resort and the custodian of foreign exchange of the country. The central bank has the power to regulate and control the foreign exchange market so as to assure that it works in the orderly fashion. One of the major functions of the central bank is to prevent the aggressive fluctuations in the foreign exchange market, if necessary, by direct intervention. Intervention in the form of selling the currency when it is overvalued and buying it when it tends to be undervalued.

The *commercial banks* are the second most important organ of the foreign exchange market. The banks dealing in foreign exchange play a role of "*market makers*", in the sense that they quote on a daily basis the foreign exchange rates for buying and selling of the foreign currencies. Also, they function as clearing houses, thereby helping in wiping out the difference between the demand for and the supply of currencies. These banks buy the currencies from the brokers and sell it to the buyers.

The *foreign exchange brokers* function as a link between the central bank and the commercial banks and also between the actual buyers and commercial banks. They are the major source of market information. These are the persons who do not themselves buy the foreign currency, but rather strike a deal between the buyer and the seller on a commission basis.

1.4 Market participates of foreign exchange Market

The foreign exchange market assists international trade and investment by enabling currency conversion. For example, it permits a business in the United States to import goods from the European

Union member states especially Euro zone members and pay Euros, even though its income is in United States dollars. The foreign exchange market (forex, FX, or currency market) is a form of exchange for the global decentralized trading of international currencies.

The Market Participants are discussed in brief below:

1.4.1 Commercial Bank

A commercial bank (or business bank) is a type of financial institution and intermediary. It is a bank that lends money and provides transactional, savings, and money market accounts and that accepts time deposit n order to facilitate international trade and development, commercial banks convert and trade foreign currencies. When a company is doing business in another country it may be paid in the currency of that country. While some of these revenues will be used to pay workers in that country and for administrative expense such as office rent, utilities and supplies, the company may need to purchase goods from a neighboring country in that country's currency, or convert cash to its native currency for return to the home office.

1.4.2 Central bank

National central banks play an important role in the foreign exchange markets. They try to control the money supply, inflation, and/or interest rates and often have official or unofficial target rates for their currencies. They can use their often substantial foreign exchange reserves to stabilize the market.

1.4.3 Foreign exchange fixing

Foreign exchange fixing is the daily monetary exchange rate fixed by the national bank of each country. The idea is that central banks use the fixing time and exchange rate to evaluate behavior of their currency. Fixing exchange rates reflects the real value of equilibrium in the market. Banks, dealers and traders use fixing rates as a trend indicator.

1.4.4 Hedge funds as speculators

About 70% to 90% of the foreign exchange transactions are speculative. In other words, the person or institution that bought or sold the currency has no plan to actually take delivery of the currency in the end; rather, they were solely speculating on the movement of that particular currency. Hedge funds have gained a reputation for aggressive currency speculation since 1996. They control billions of dollars of equity and may borrow billions more, and thus may overwhelm intervention by central banks to support almost any currency, if the economic fundamentals are in the hedge funds' favor.

1.4.5 Investment management firms

Investment management is the professional management of various securities (shares, bonds and other securities) and assets (e.g., real estate) in order to meet specified investment goals for the benefit of the investors. These firms (who typically manage large accounts on behalf of customers such as pension funds and endowments) use the foreign exchange market to facilitate transactions in foreign securities

1.4.6 Retail foreign exchange traders

One of the most important tools required to perform a foreign exchange transaction is the trading platform providing retail traders and brokers with accurate currency quotes. Retail foreign exchange trading is a small segment of the large foreign exchange market.

1.5 Market rate Quotations-currency rate fluctuation

A currency pair is the quotation of the relative value of a currency unit against the unit of another currency in the foreign exchange market. The quotation EUR/USD 1.2500 means that 1 Euro is exchanged for 1.2500 US dollars.

Quotes using a country's home currency as the price currency (e.g., EUR 0.735342 = USD 1.00 in the euro zone) are known as direct quotation or price quotation (from that country's perspective)[4] and are used by most countries. Quotes using a country's home currency as the unit currency (e.g., EUR 1.00 = USD 1.35991 in the euro zone) are known as indirect quotation or quantity quotation and are used in British newspapers and are also common in Australia, New Zealand and the euro zone.

Fluctuation in the exchange rate

A market based exchange rate will change whenever the values of either of the two component currencies change. A currency will tend to become more valuable whenever demand for it is greater than the available supply. It will become less valuable whenever demand is less than available supply (this does not mean people no longer want money, it just means they prefer holding their wealth in some other form, possibly another currency).

1.6 Types of transactions & settlements in FOREX Market

The Foreign Exchange Transactions refers to the sale and purchase of foreign currencies. Simply, the foreign exchange transaction is an agreement of exchange of currencies of one country for another at an agreed exchange rate on a definite date.

1.6.1 Spot Transaction

The spot transaction is when the buyer and seller of different currencies settle their payments within the two days of the deal. It is the fastest way to exchange the currencies. Here, the currencies are exchanged over a two-day period, which means no contract is signed between the countries. The exchange rate at which the currencies are exchanged is called the Spot Exchange Rate. This rate is often the prevailing exchange rate. The market in which the spot sale and purchase of currencies is facilitated is called as a Spot Market.

1.6.2 Forward Transaction

A forward transaction is a future transaction where the buyer and seller enter into an agreement of sale and purchase of currency after 90 days of the deal at a fixed exchange rate on a definite date in the future. The rate at which the currency is exchanged is called a 'Forward Exchange Rate'. The market in which the deals for the sale and purchase of currency at some future date are made is called a 'Forward Market'.

Future Transaction: The future transactions are also the forward transactions and deals with the contracts in the same manner as that of normal forward transactions. But however, the transactions made in a future contract differ from the transaction made in the forward contract on the following grounds:

- The forward contracts can be customized on the client's request, while the future contracts are standardized such as the features, date, and the size of the contracts is standardized.
- The future contracts can only be traded on the organized exchanges, while the forward contracts can be traded anywhere depending on the client's convenience.
- No margin is required in case of the forward contracts, while the margins are required of all the participants and an initial margin is kept as collateral so as to establish the future position.

1.6.3 Swap Transactions

The Swap Transactions involve a simultaneous borrowing and lending of two different currencies between two investors. Here one investor borrows the currency and lends another currency to the second investor. The obligation to repay the currencies is used as collateral, and the amount is repaid at a forward rate. The swap contracts allow the investors to utilize the funds in the currency held by

him/her to pay off the obligations denominated in a different currency without suffering a foreign exchange risk.

Option Transactions: The foreign exchange option gives an investor the right, but not the obligation to exchange the currency in one denomination to another at an agreed exchange rate on a pre-defined date. An option to buy the currency is called as a 'Call Option' while the option to sell the currency is called as a 'Put Option'.

Thus, the Foreign exchange transaction involves the conversion of a currency of one country into the currency of another country for the settlement of payments.

1.6.4 Settlement dates

Settlement date, as the name implies refers to the date on which the transaction is settled by the transferor of deposits, with reference to foreign exchange transactions. In a Spot exchange transaction, though the word "Spot" implies "immediate", it usually takes two business days for the transaction to get settled. Though the spot rate is the rate of the day on which the transaction has taken place, the execution of the transaction occurs within a maximum of two working days. But in certain cases of countries currencies, the settlement may take place the very next business day, an example being currency settlement between US Dollars and Canadian Dollars. There are two aspects involved in settlement dates: the settlement location and dealing location. Settlement location refers to the country in which the transaction has to be settled or paid and dealing location refers to the country in which the bank dealing with the foreign exchange transaction is located.

Forward exchange rates are applicable for the delivery of foreign exchange at some future date, which may be specified. There are two options in forward exchange transactions. Let us assume that Emirates in UAE is purchasing aircrafts from the United States. Obviously, the settlement has to be made in US dollars. Suppose if the agreement between the two countries is to settle the payment after 2 months time, there are now two options available for Emirates, UAE: one, to remain silent now and after 2 months period, buy the US Dollars at the spot market at the then prevailing spot rate and settle the payment to the United States. In this case, the settlement date will be as per the Spot Exchange transaction. Secondly, the country can buy US dollars at the forward exchange market at the agreed prevailing forward exchange rate, which would be valid for settlement after two months period, irrespective of the spot rate prevailing at the time of settlement after two months. The second option avoids uncertainty and risk and the settlement takes place at the maturity of the forward exchange contract.

1.7 Exchange rate quotations

These can be quoted in two ways-**Direct** quotation and **Indirect** quotation. Direct quotation is when the one unit of foreign currency is expressed in terms of domestic currency. Similarly, the indirect quotation is when one unit of domestic currency us expressed in terms of foreign currency.

Since the US dollar (USD) is the most dominant currency, usually, the exchange rates are expressed against the US dollar. However, the exchange rates can also be quoted against other countries' currency, which is called as cross currency.

Now, a lower exchange rate in a direct quote implies that the domestic currency is appreciating in value. Whereas, a lower exchange rate in an indirect quote indicates that the domestic currency is depreciating in value as it is worth a smaller amount of foreign currency

1.8 Currency futures and options markets

1.8.1 Exchange-traded derivative

option, the arithmetic average of the Exchange-traded derivative contract are standardized derivative contracts such as futures and options contracts that are transacted on an organized futures exchange. They are standardized and require payment of an initial deposit or margin settled through a house. Since the contracts are standardized, accurate pricing models are often available. To understand which derivative is being traded a standardized naming convention has been developed by the exchanges, that shows the expiry month and strike price using special letter codes.

1.8.2 Over the Counter derivatives

Over the Counter (OTC) derivatives are traded between two parties (bilateral negotiation) without going through an exchange or any other intermediaries. OTC is the term used to refer stocks that trade via dealer network and not any centralized exchange. These are also known as unlisted stocks where the securities are traded by broker-dealers through direct negotiations.

1.8.3 Options

Currency option (also known as a forex option) is a contract that gives the buyer the right, but not the obligation, to buy or sell a certain currency at a specified exchange rate on or before a specified date. For this right, a premium is paid to the seller.

Currency options are one of the most common ways for corporations, individuals or financial institutions to hedge against adverse movements in exchange rates.

- **Call options** provide the holder the right (but not the obligation) to purchase an underlying asset at a specified price (the strike price), for a certain period of time. If the stock fails to meet the strike price before the expiration date, the option expires and becomes worthless. Investors buy calls when they think the share price of the underlying security will rise or sell a call if they think it will fall. Selling an option is also referred to as ''writing'' an option.
- **Put options** give the holder the right to sell an underlying asset at a specified price (the strike price). The seller (or writer) of the put option is obligated to buy the stock at the strike price. Put options can be exercised at any time before the option expires. Investors buy puts if they think the share price of the underlying stock will fall, or sell one if they think it will rise. Put buyers - those who hold a "long" - put are either speculative buyers looking for leverage or "insurance" buyers who want to protect their long positions in a stock for the period of time covered by the option.
- **American option** is a version of an options contract that allows holders to exercise the option rights at any time before and including the day of expiration. An American style option allows investors to capture profit as soon as the stock price moves favorably.
- **European Option** is a version of an options contract that limits execution to its expiration date. In other words, if the underlying security such as a stock has moved in price an investor would not be able to exercise the option early and take delivery of or sell the shares. Instead, the call or put action will only take place on the date of option maturity.
- **Asian option** (also known as average price option) is an option whose payoff is determined with respect to the (arithmetic or geometric) average price of the underlying asset over the term of the option.
- While the payoff of a standard (American and European) option depends on the price of the underlying asset at a specific point of time i.e. the exercise date, the payoff of an Asian option depends on the average price of the underlying asset that prevailed over a period of time i.e. the term of the option.
- There are two types of Asian options with respect to the method of averaging: in arithmetic Asian

price of the underlying is used in payoff calculations; while in geometric Asian options, geometric average is used.

- Asian options have relatively low volatility due to the averaging mechanism. They are used by traders who are exposed to the underlying asset over a period of time such as consumers and suppliers of commodities, etc.

1.8.4 Swaps

Interest Rate Swaps

In an interest rate swap, the parties exchange cash flows based on a notional principal amount (this amount is not actually exchanged) in order to hedge against interest rate risk or to speculate. For example, imagine ABC Co. has just issued $1 million in five-year bonds with a variable annual interest rate defined as the London Interbank Offered Rate (LIBOR) plus 1.3% (or 130 basis points). Also, assume that LIBOR is at 2.5% and ABC management is anxious about an interest rate rise.

Commodity Swaps

Commodity swaps involve the exchange of a floating commodity price, such as the Brent Crude oil spot price, for a set price over an agreed-upon period. As this example suggests, commodity swaps most commonly involve crude oil.

Currency Swaps

In a currency swap, the parties exchange interest and principal payments on debt denominated in different currencies. Unlike an interest rate swap, the principal is not a notional amount, but it is exchanged along with interest obligations. Currency swaps can take place between countries. For example, China has used swaps with Argentina, helping the latter stabilize its foreign reserves. The U.S. Federal Reserve engaged in an aggressive swap strategy with European central banks during the 2010 European financial crisis to stabilize the euro, which was falling in value due to the Greek debt crisis.

Debt-Equity Swaps

A debt-equity swap involves the exchange of debt for equity – in the case of a publicly-traded company, this would mean bonds for stocks. It is a way for companies to refinance their debt or reallocate their capital structure.

Total Return Swaps

In a total return swap, the total return from an asset is exchanged for a fixed interest rate. This gives the party paying the fixed-rate exposure to the underlying asset-a stock or an index. For example, an investor could pay a fixed rate to one party in return for the capital appreciation plus dividend payments of a pool of stocks.

Credit Default Swap (CDS)

A credit default swap (CDS) consists of an agreement by one party to pay the lost principal and interest of a loan to the CDS buyer if a borrower defaults on a loan. Excessive leverage and poor risk management in the CDS market were primary causes of the 2008 financial crisis.

1.9 Features of Futures Contracts-Foreign Exchange

This article throws light upon the six major features of futures contracts. The features are: **1.** Organized Exchanges **2.** Standardization **3.** Clearing House **4.** Margins **5.** Marking to Market **6.** Actual Delivery is Rare.

1.9.1 Organized Exchanges

Unlike forward contracts which are traded in an over-the-counter market, futures are traded on organized exchanges with a designated physical location where trading takes place. This provides a

ready, liquid market in which futures can be bought and sold at any time like in a stock market.

1.9.2 Standardization

In the case of forward currency contracts, the amount of commodity to be delivered and the maturity date are negotiated between the buyer and seller and can be tailor-made to buyer's requirements. In a futures contract, both these are standardized by the exchange on which the contract is traded. thus, for instance, one futures contract in pound sterling on the International Monetary Market (IMM), a financial futures exchange in the US, (part of the Chicago Board of Trade or CBT), calls for delivery of 62,500 British Pounds and contracts are always traded in whole numbers, i.e., you cannot buy or sell fractional contracts. A three-month sterling deposit on the London International Financial Futures Exchange (LIFFE) has March, June, September, December delivery cycle.

The exchange also specifies the minimum size of price movement (called the "tick") and, in some cases, may also impose a ceiling on the maximum price change within a day. In the case of commodity futures, the commodity in question is also standardized for quality in addition to quantity in a single contract.

1.9.3 Clearing House

The exchange acts as a clearing house to all contracts struck on the trading floor. For instance, a contract is struck between A and B. Upon entering into the records of the exchange, this is immediately replaced by two contracts, one between A and the clearing house and another between B and the clearing house. In other words, the exchange interposes itself in every contract and deal, where it is a buyer to every seller and a seller to every buyer. The advantage of this is that A and B do not have to undertake any exercise to investigate each other's creditworthiness. It also guarantees the financial integrity of the market. The exchange enforces delivery for contracts held until maturity and protects itself from default risk by imposing margin requirements on traders and enforcing this through a system called "marking to market".

1.9.4 Margins

Like all exchanges, only members are allowed to trade in futures contracts on the exchange. Others can use the services of the members as brokers to use this instrument. Thus, an exchange member can trade on his own account as well as on behalf of a client. A subset of the members is the "clearing members" or members of the clearing house and non- clearing members must clear all their transactions through a clearing member.

The exchange requires that a margin must be deposited with the clearing house by a member who enters into a futures contract. The amount of the margin is generally between 2.5% to 10% of the value of the contract but can vary. A member acting on behalf of a client, in turn, requires a margin from the client. The margin can be in the form of cash or securities like treasury bills or bank letters of credit.

1.9.5 Marking to Market

The exchange uses a system called marking to market where, at the end of each trading session, all outstanding contracts are reprised at the settlement price of that trading session. This would mean that some participants would make a loss while others would stand to gain. The exchange adjusts this by debiting the margin accounts of those members who made a loss and crediting the accounts of those members who have gained. This feature of futures trading creates an important difference between forward contracts and futures. In a forward contract, gains or losses arise only on maturity. There are no intermediate cash flows.

Whereas, in a futures contract, even though the gains and losses are the same, the time profile of the accruals is different. In other words, the total gains or loss over the entire period is broken up into a daily series of gains and losses, which clearly has a different present value.

1.9.6 Actual Delivery is Rare

In most forward contracts, the commodity is actually delivered by the seller and is accepted by the buyer. Forward contracts are entered into for acquiring or disposing off a commodity in the future for a gain at a price known today.

In contrast to this, in most futures markets, actual delivery takes place in less than one per cent of the contracts traded. Futures are used as a device to hedge against price risk and as a way of betting against price movements rather than a means of physical acquisition of the underlying asset. To achieve this, most of the contracts entered into are nullified by a matching contract in the opposite direction before maturity of the first.

1.10 Forward Contract Vs Future Contract

BASIS FOR COMPARISON	FORWARD CONTRACT	FUTURES CONTRACT
Meaning	Forward Contract is an agreement between parties to buy and sell the underlying asset at a specified date and agreed rate in future.	A contract in which the parties agree to exchange the asset for cash at a fixed price and at a future specified date, is known as future contract.
What is it?	It is a tailor made contract.	It is a standardized contract.
Traded on	Over the counter, i.e. there is no secondary market.	Organized stock exchange.
Settlement	On maturity date.	On a daily basis.
Risk	High	Low
Default	As they are private agreement, the chances of default are relatively high.	No such probability.
Size of contract	Depends on the contract terms.	Fixed
Collateral	Not required	Initial margin required.
Maturity	As per the terms of contract.	Predetermined date
Regulation	Self regulated	By stock exchange
Liquidity	Low	High

.11 Over view of the other markets

11.1 The International Money Market

The international money market is a market where international currency transactions between numerous central banks of countries are carried on. The transactions are mainly carried out using gold or in US dollar as a base. The basic operations of the international money market include the money borrowed or lent by the governments or the large financial institutions.

The international money market is governed by the transnational monetary transaction policies of various nations' currencies. The international money market's major responsibility is to handle the currency trading between the countries. This process of trading a country's currency with another one is also known as forex trading.

Unlike share markets, the international money market sees very large funds transfer. The players of the market are not individuals; they are very big financial institutions. The international money market investments are less risky and consequently, the returns obtained from the investments are less too. The best and most popular investment method in the international money market is via money market mutual funds or treasury bills.

Features of International Money Market

- It is a wholesale market, as the transaction volume is large.
- Trading takes place over the telephone, after which written confirmation is done by way of e-mails.
- Participants include banks, mutual funds, investment institutions and Central Banks.
- There is an impersonal relationship between the participants in the money market, and so, pure competition exists.
- Money market operations focus on a particular area, which serves a region or an area. On the basis of the market size and needs, the area may differ.
- There are five major segments of money market which are Certificate of Deposits (CD), Commercial Paper, Swaps, Repo and Government treasury securities.

Functions of Money Market

The three basic functions of money market are

- It provides a balancing tool for equating the demand for and supply of short term funds.
- It provides a centre for the intervention of central bank, for controlling liquidity and general interest rate level.
- It provides a proper reach to the suppliers and users of the short term funds, to fulfill their requirements, at a reasonable market clearing price.

Money market plays a vital role in equating the short term liquidity imbalances within the country. Indeed, with the help of this market, the central bank controls liquidity and interest rates level in the country.

(NEER), real effective exchange rate (REER);

The nominal effective exchange rate (NEER) is an unadjusted weighted average rate at which one country's currency exchanges for a basket of multiple foreign currencies. The nominal exchange rate is the amount of domestic currency needed to purchase foreign currency.

In economics, the NEER is an indicator of a country's international competitiveness in terms of the foreign exchange (forex) market. Forex traders sometimes refer to the NEER as the trade-weighted currency index.

The NEER may be adjusted to compensate for the inflation rate of the home country relative to

the inflation rate of its trading partners. The resulting figure is the real effective exchange rate (REER). Unlike the relationships in a nominal exchange rate, NEER is not determined for each currency separately. Instead, one individual number, typically an index, expresses how a domestic currency's value compares against multiple foreign currencies at once.

If a domestic currency increases against a basket of other currencies inside a floating exchange rate regime, NEER is said to appreciate. If the domestic currency falls against the basket, the NEER depreciates.

What Does the Nominal Effective Exchange Rate (NEER) Tell You?

The NEER only describes relative value; it cannot definitively show whether a currency is strong or gaining strength in real terms. It only describes whether a currency is weak or strong, or weakening or strengthening, compared to foreign currencies. As with all exchange rates, the NEER can help identify which currencies store value more or less effectively. Exchange rates influence where international actors buy or sell goods.

NEER is used in economic studies and for policy analysis on international trade. It is also used by forex traders who engage in currency arbitrage. The Federal Reserve calculates three different NEER indices for the United States: the broad index, the major currencies index and the other important trading partners (OITP) index.

The Basket of Foreign Currencies

Every NEER compares one individual currency against a basket of foreign currencies. This basket is chosen based on the domestic country's most important trading partners as well as other major currencies. The world's major currencies are the U.S. dollar, the euro, the British pound, the Japanese yen, the Australian dollar, the Swiss franc, the South African rand and the Canadian dollar.

The value of foreign currencies in a basket are weighted according to the value of trade with the domestic country. This could be export or import value, the total value of exports and imports combined or some other measure. The weights often relate to the assets and liabilities of different countries.

A higher NEER coefficient (above 1) means that the home country's currency is usually worth more than an imported currency, and a lower coefficient (below 1) means that the home currency is usually worth less than the imported currency.

There is no international standard for selecting a basket of currencies. The Organization for Economic Co-operation and Development (OECD) basket is different than the basket for the International Monetary Fund (IMF) or the Federal Reserve or Bank of Japan. However, many different institutions rely on the International Financial Statistics (IFS) published by the IMF.

currency derivatives–forwards, futures, forward rate agreement, options, swaps; Foreign

Exchange Management Act ;

BOP, BOP trends in India; current account convertibility, capital account convertibility,

The balance of payments (BOP), also known as balance of international payments, summarizes all transactions that a country's individuals, companies, and government bodies complete with individuals, companies, and government bodies outside the country. These transactions consist of imports and exports of goods, services, and capital, as well as transfer payments, such as foreign aid and remittances.

The balance of payments divides transactions in two accounts: the current account and the capital account. Sometimes the capital account is called the financial account, with a separate, usually very small, capital account listed separately. The current account includes transactions in goods, services, investment income, and current transfers. The capital account, broadly defined, includes transactions in financial instruments and central bank reserves. Narrowly defined, it includes only transactions in financial instruments. The current account is included in calculations of national output, while the capital account is not.

The sum of all transactions recorded in the balance of payments must be zero, as long as the capital account is defined broadly. The reason is that every credit appearing in the current account has a corresponding debit in the capital account, and vice-versa. If a country exports an item (a current account transaction), it effectively imports foreign capital when that item is paid for (a capital account transaction).

If a country cannot fund its imports through exports of capital, it must do so by running down its reserves. This situation is often referred to as a balance of payments deficit, using the narrow definition of the capital account that excludes central bank reserves. In reality, however, the broadly defined balance of payments must add up to zero by definition. In practice, statistical discrepancies arise due to the difficulty of accurately counting every transaction

between an economy and the rest of the world, including discrepancies caused by foreign currency translations.

Economic Policy and the Balance of Payments

Balance of payments and international investment position data are critical in formulating national and international economic policy. Certain aspects of the balance of payments data, such as payment imbalances and foreign direct investment, are key issues that a nation's policymakers seek to address.

Economic policies are often targeted at specific objectives that, in turn, impact the balance of payments. For example, one country might adopt policies specifically designed to attract foreign investment in a particular sector, while another might attempt to keep its currency at an artificially low level in order to stimulate exports and build up its currency reserves. The impact of these policies is ultimately captured in the balance of payments data.

Imbalances Between Countries

While a nation's balance of payments necessarily zeroes out the current and capital accounts, imbalances can and do appear between different countries' current accounts. According to the World Bank, the U.S. had the world's largest current account deficit in 2019, at $498 billion. Germany had the world's largest surplus, at $275 billion.[1]

Tara pore Committee Report;

umping into capital account convertibility game without considering the downside of the step can harm the economy. The Committee on Capital Account Convertibility (CAC) or Tarapore Committee was constituted by the Reserve Bank of India for suggesting a roadmap on full convertibility of Rupee on Capital Account. The committee submitted its report in May 1997. The committee observed that there is no clear definition of CAC. The CAC as per the standards, refers to the freedom to convert the local financial assets into foreign financial assets or vice versa at the market determined rates of exchange.

The Tarapore committee observed that the Capital controls can be useful in insulating the economy of the country from the volatile capital flows during the transitional periods and also in providing time to the authorities, so that they can pursue discretionary domestic policies to strengthen the initial conditions.

The CAC Committee recommended the implementation of Capital Account Convertibility for a 3 year period viz. 1997-98, 1998-99 and 1999-2000. But this committee had laid down some pre conditions as follows:

1. Gross fiscal deficit to GDP ratio has to come down from a budgeted 4.5 per cent in 1997-98 to 3.5% in 1999-2000.
2. A consolidated sinking fund has to be set up to meet government's debt

repayment needs; to be financed by increased in RBI's profit transfer to the govt. and disinvestment proceeds.

3. Inflation rate should remain between an average 3-5 per cent for the 3-year period 1997-2000.
4. Gross NPAs of the public sector banking system needs to be brought down from the present 13.7% to 5% by 2000. At the same time, average effective CRR needs to be brought down from the current 9.3% to 3%
5. RBI should have a Monitoring Exchange Rate Band of plus minus 5% around a neutral Real Effective Exchange Rate RBI should be transparent about the changes in REER
6. External sector policies should be designed to increase current receipts to GDP ratio and bring down the debt servicing ratio from 25% to 20%
7. Four indicators should be used for evaluating adequacy of foreign exchange reserves to safeguard against any contingency. Plus, a minimum net foreign asset to currency ratio of 40 per cent should be prescribed by law in the RBI Act.

The above committee's report was not translated into any actions. India is till a country with partial convertibility. However, some important measures in "that direction" were taken and they are summarized as below:

1. The Indian Corporate were allowed full convertibility in an automatic route up to the $ 500 million overseas ventures. This means that the limited companies were allowed to invest in foreign countries.
2. Indian corporate were allowed to prepay their external commercial borrowings via automatic route if the loan is above $ 500 million.
3. Individuals were allowed to invest in foreign assets , shares up to $ 2, 00, 000 per year.
4. Unlimited amount of Gold was allowed to be imported.

"The last measure, i.e. allowing unlimited amount of Gold is equal to allowing the full convertibility in capital account via current account route"

The Second Tarapore Committee on Capital Account Convertibility

Reserve Bank of India appointed the second Tarapore committee to set out the framework for fuller Capital Account Convertibility. The committee was established by RBI in consultation with the Government to revisit the subject of fuller capital account convertibility in the context of the progress in economic reforms, the stability of the external and financial sectors, accelerated growth and global integration.

The report of this committee was made public by RBI on 1st September 2006. In this report, the committee suggested 3 phases of adopting the full convertibility of rupee in capital acount.

1. First Phase in 2006-7
2. Second phase in 2007-09
3. Third Phase by 2011.

Following were some important recommendations of this committee:

1. The ceiling for External Commercial Borrowings (ECB) should be raised for automatic approval.

2. NRI should be allowed to invest in capital markets
3. NRI deposits should be given tax benefits.
4. Improvement of the Banking regulation.
5. FII (Foreign Institutional Investors) should be prohibited from investing fresh money raised to participatory notes.
6. Existing PN holders should be given an exit route to phase out completely the PN notes.

- At present the rupee is fully convertible on the current account, but only partially convertible on the capital account.

Parity Conditions- Purchasing Power Parity, Interest Rate Parity, International Fisher Effect,

1.1 Purchasing Power Parity Theory

Under the theory of Purchasing Power Parity, the change in the exchange rate between two countries' currencies is determined by the change in their relative price levels locally that are affected by inflation. It is generally agreed that this theory mostly holds true over the long run, but economists have found that it can suffer distortions over the short term because of trade and investment barriers, local taxation, and other factors.

As a result of this relationship, one can expect the currencies of countries with higher inflation rates to weaken over time versus their peers, whereas currencies of countries with lower inflation rates tend to strengthen. In economies with weak production of local goods and services, the depreciation of the local currency can at times even be accelerated by the "pass-through effect" of importing foreign goods with relatively higher prices.

When a country's inflation rate rises relative to that of another country, decreased exports and increased imports depress the high-inflation country's currency because of worsening trade and current account balances. Purchasing Power Parity (PPP) theory attempts to quantify this inflation-exchange

rate relationship.

Interpretations of PPP

- The absolute form of PPP is an extension of the law of one price. It suggests that the prices of the same products in different countries should be equal when measured in a common currency.
- The relative form of PPP accounts for market distortions like transportation costs, labor costs, tariffs, taxes, and quotas. It states that the rate of price changes should be similar.

Rationale behind PPP Theory

Suppose U.S. inflation > U.K. inflation.

$\Rightarrow$ U.S. imports from U.K.

$\uparrow$ U.S. exports to U.K., and U.S. current account$\downarrow$

Downward pressure (depreciation) is placed on the $. This shift in consumption and the $'s depreciation will continue until

in the U.S.: price $_{\text{U.K. goods}} \geq$ price $_{\text{U.S. goods}}$ and

in the U.K.: price $_{\text{U.S. goods}} \leq$ price $_{\text{U.K. goods}}$

Derivation of PPP

Assume that PPP holds. Over time, as inflation occurs exchange rates adjusts to maintain PPP: $P_{h1} \rightarrow P_{h0} (1 + I_h)$

Where P_{h1}=home country's price index, year-1 end

I_h =home country's inflation rate for the year

$P_{f1} \rightarrow P_{f0} (1 + I_f)(1 + e_f)$ where

Pf = foreign country's price index

I_f = foreign country's inflation rate

e_f = foreign currency's % in value

If PPP holds $\Rightarrow P_{h1} = P_{f1}$ and $P_{h0} (1 + I_h) = P_{f0} (1 + I_f) (1 + e_f)$

Solving for $e_f = (1 + I_h) / (1 + I_f) - 1$

$I_h > I_f \Rightarrow e_f > 0$ i.e. foreign currency appreciates

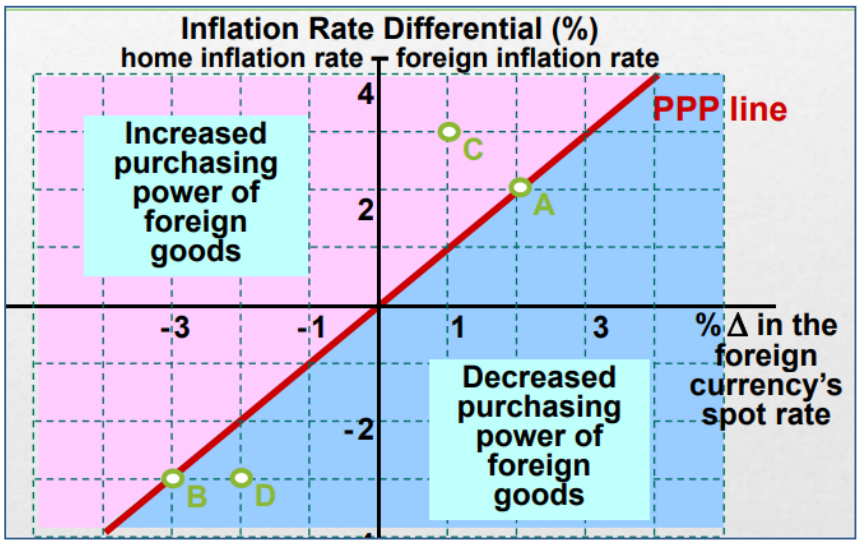
$I_h < I_f \Rightarrow e_f < 0$ i.e. foreign currency depreciates

Example: Suppose $I_{U.S.} = 9\%$ and $I_{U.K.} = 5\%$.

Then $e_{£} = \{(1 + 0.09) / (1+0.05)\} - 1 = 3.81\%$

When the inflation differential is small, the PPP relationship can be simplified as $e_f \cong I_h - I_f$

Graphic Analysis of Purchasing Power Parity



Testing the PPP Theory

Conceptual Test

Plot actual inflation differentials and spot exchange rate changes for two or more countries on a graph. If the points deviate significantly from the PPP line over time, then PPP does not hold.

Statistical Test

Apply regression analysis to historical exchange rates and inflation differentials:

$e_f = a_0 + a_1 [(1+ I_h)/(1+ I_f) – 1] + \mu$

Then apply t-tests to the regression coefficients (Test for a 0 = 0 and a 1 = 1.) .If any coefficient differs significantly from what was expected, PPP does not hold.

Empirical studies indicate that the relationship between inflation differentials and exchange rates is not perfect even in the long run. However, the use of inflation differentials to forecast long-run movements in exchange rates is supported. A limitation in the tests is that the choice of the base period will affect the result.

PPP does not occur consistently due toconfounding effects, a lack of substitutes for some traded goods**.** Exchange rates are also affected by differences in inflation, interest rates, income levels, government controls and expectations of future rates.

PPP can be tested by assessing a "real" exchange rate over time (e.g., crawling pegs). The real exchange rate is the actual exchange rate adjusted for inflationary effects in the two countries of concern. If the real exchange rate follows a random walk, it cannot be viewed as being a constant in the long run. Then PPP does not hold.

1.2 International Fisher Effect (IFE)

According to the Fisher Effect, nominal risk-free interest rates contain a real rate of return and anticipated inflation $i_n = i_r$ + inflation

If all investors require the same real return on assets of similar risk and maturity, then differentials in interest rates may be due to differentials in expected inflation.

The International Fisher Effect (IFE) theory suggests that currencies with higher interest rates will depreciate because the higher nominal rates reflect higher expected inflation.

Hence, investors hoping to capitalize on a higher foreign interest rate should earn a return no higher than what they would have earned domestically

According to the IFE, E (r_f), the expected effective return on a foreign money market investment, should equal r_h , the effective return on a domestic investment.

$r_f = (1 + i_f)(1 + e_f) – 1$

i_f = interest rate in the foreign country e_f = % change in the foreign currency's value

$r_h = i_h$ = interest rate in the home country

Setting $r_f = r_h$: $(1 + i_f)(1 + e_f) – 1 = i_h$

Solving for e_f : $e_f =] (1 + i_h) / 1 (1 + i_f)]-1$

$i_h > i_f \Rightarrow e_f > 0$ i.e. foreign currency appreciate

$i_h < i_f \Rightarrow e_f < 0$ i.e. foreign currency depreciates

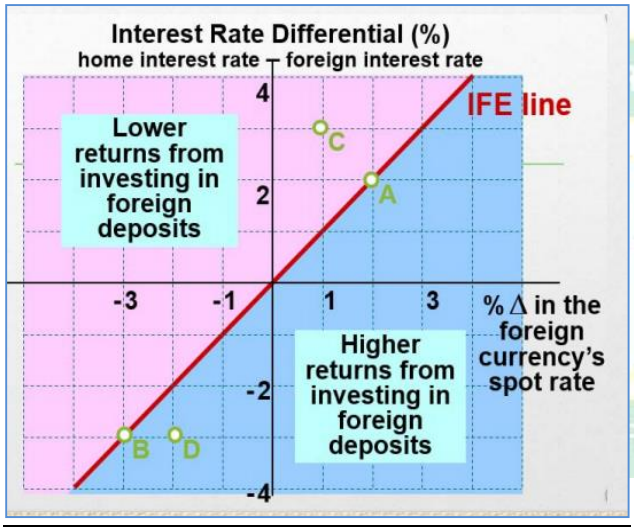
Example: Suppose $i_{U.S.} = 11\%$ and $i_{U.K.} = 12\%$. Then $e_{U.K.} = [(1 + .11)/ (1 + .12)] – 1$

$= –(.89)\%$.

This will make $_{rf} = r_h$

When the interest rate differential is small, the IFE relationship can be simplified as $e_f \cong i_h - i_f$

If the British rate on 6-month deposits were 2% above the U.S. interest rate, the £ should depreciate by approximately 2% over 6 months. Then U.S. investors would earn about the same return on British deposits as they would on U.S. deposits.



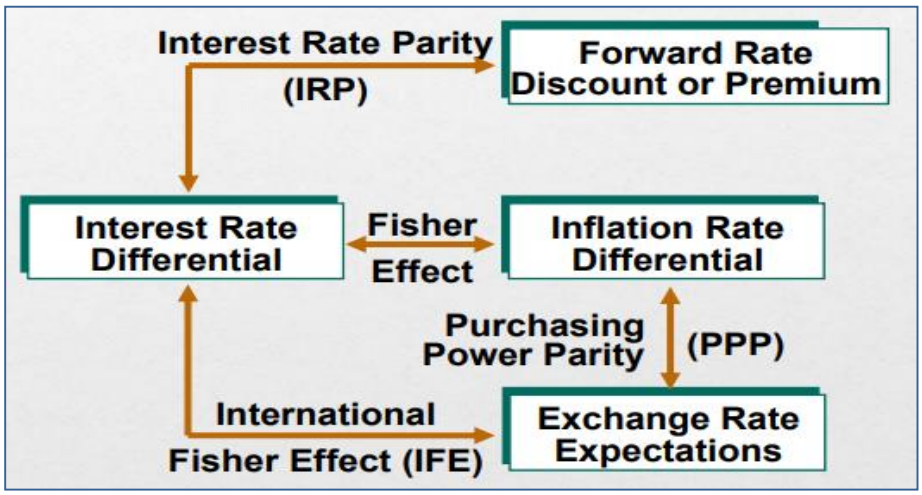
If actual interest rates and exchange rate changes are plotted over time on a graph, we can see whether the points are evenly scattered on both sides of the IFE line. Empirical studies indicate that the IFE theory holds during some time frames. However, there is also evidence that it does not hold consistently

To test the IFE statistically, apply regression analysis to historical exchange rates and nominal interest rate differentials: $e_f = a_0 + a_1 [(1+ i_h)/(1+ i_f) – 1] + \mu$.

Then apply t-tests to the regression coefficients. (Test for $a_0 = 0$ and $a_1 = 1$.). IFE does not hold if any coefficient differs significantly from what was expected.

Since the IFE is based on PPP, it will not hold when PPP does not hold. • In particular, if there are factors other than inflation that affect exchange rates, exchange rates may not adjust in accordance with the inflation differential.

Comparison of the IRP, PPP, and IFE Theories



Interest rate parity

Forward rate premium p

Interest rate differential $i_h - i_f$

$$p = \frac{(1+i_h)}{(1+i_f)} - 1 \cong i_h - i_f$$

Purchasing power parity

% Δ in spot exchange rate e_f

Inflation rate differential $I_h - I_f$

$$e_f = \frac{(1+I_h)}{(1+I_f)} - 1 \cong I_h - I_f$$

International Fisher effect

% Δ in spot exchange rate e_f

Interest rate differential $i_h - i_f$

$$e_f = \frac{(1+i_h)}{(1+i_f)} - 1 \cong i_h - i_f$$

1.3 Expectations theory

Expectations theory attempts to predict what short-term interest rates will be in the future based on current long-term interest rates. The theory suggests that an investor earns the same amount of interest by investing in two consecutive one-year bond investments versus investing in one two-year bond today. The theory is also known as the "unbiased expectations theory."

Understanding Expectations Theory

The expectations theory aims to help investors make decisions based upon a forecast of future interest rates. The theory uses long-term rates, typically from government bonds, to forecast the rate for short-term bonds. In theory, long-term rates can be used to indicate where rates of short-term bonds will trade in the future.

Example of Calculating Expectations Theory

In this example, the investor is earning an equivalent return to the Let's say that the present bond market provides investors with a two-year bond that pays an interest rate of 20% while a one-year bond pays an interest rate of 18%. The expectations theory can be used to forecast the interest rate of a future one-year bond.

The first step of the calculation is to add one to the two-year bond's interest rate. The result is 1.2.

The next step is to square the result or (1.2 * 1.2 = 1.44).

Divide the result by the current one-year interest rate and add one or ((1.44 / 1.18) +1 = 1.22).

To calculate the forecast one-year bond interest rate for the following year, subtract one from the result or (1.22 -1 = 0.22 or 22%).

present interest rate of a two-year bond. If the investor chooses to invest in a one-year bond at 18% the bond yield for the following year's bond would need to increase to 22% for this investment to be advantageous.

Unbiased Forward Rate Theory. International debt crises and currency crises-Asian currency crisis, Greek debt crisis.

UNIT:4 Multinational Corporate Decisions in Global Markets.

Foreign investment decision-Foreign direct investment (FDI)–motives, FDI theories-theory of comparative advantage, OLI paradigm of FDI in India, evaluation of overseas investment proposal using APV (Simple Problems); Financial goals of MNC, financial performance measurement, international cash management, multinational capital structure decision, cost of capital , international portfolio diversification- rationale, barriers, home country bias, project financing

Foreign investment decision-Foreign direct investment (FDI)–motives,

Foreign direct investment, international capital budgeting, international capital structure and cost of capital. International portfolio management. International financing: Equity, Bond financing, parallel loans, international cash management, accounts receivable management, inventory management. Payment methods of international trade, trade finance methods, export and import bank of India, and recent amendments in EXIM policy, regulations and guidelines.

1.1 Foreign Direct Investment

A foreign direct investment (FDI) is an investment made by a firm or individual in one country into business interests located in another country. Generally, FDI takes place when an investor establishes foreign business operations or acquires foreign business assets in a foreign company. However, FDIs are distinguished from portfolio investments in which an investor merely purchases equities of foreign-based companies.

Foreign direct investments are commonly made in open economies that offer a skilled workforce and above-average growth prospects for the investor, as opposed to tightly regulated economies. Foreign direct investment frequently involves more than just a capital investment. It may include provisions of management or technology as well. The key feature of foreign direct investment is that it establishes either effective control of or at least substantial influence over the decision-making of a foreign business.

1.1.1 Types of Foreign Direct Investment

1. **FDI**: It is the investment done by a company or organization which practices all the tasks and activities done at the investing company, back at its own country of operation. Therefore, basically such investors are from the same industry where investments are done but operating in two different countries. For e.g., a car manufacture in Australia invests in a car manufacturing company of India.
2. **Vertical FDI**: The industry of the investor and the company where investments are done are related to each other. This type of FDI is further classified as:
   a) **Forward Vertical FDI**: In such investments, foreign investments are done in organizations which

can take the products forward towards the customers. For e.g., a car manufacturing company in Australia invests in a wholesale Car Dealer company in India.

b) **Backward Vertical FDI**: In such investments, foreign investments are done in an organization which is involved in sourcing of products for the particular industry. For e.g., the car manufacturer of Australia invests in a tyre manufacturing plant in India.

c) **Conglomerate FDI**: Such investments are done to gain control in unrelated business segments and industries in a foreign land. For e.g., the car manufacturer of Australia invests in a consumer durable good manufacturer in India. Here the investing company ideally manages two challenges, first being gaining operational control in a foreign land, and the second being starting operations in a new industry segment.

d) **Greenfield Entry**: In this special type of FDI, the investing company refers to an investing organization starting assembling from scratch just like Honda did in United Kingdom

e) **Foreign Takeover**: This type of FDI takes the form of a foreign merger

1.2 Theories Of FDI

1.2.1 Mac Dougall -Kemp Hypothesis

FDI moves from capital abundant economy to capital scarce economy till the marginal production is equal in both countries. This leads to improvement in efficiency in utilization of resources in which leads to ultimate increase in welfare. According to this theory, foreign direct investment is a result of differences in capital abundance between economies. This theory was developed by MacDougal (1958) and was later elaborated by Kemp (1964)

1.2.2 Industrial Organization Theory

According to this theory, MNC with superior technology moves to different countries to supply innovated products making in turn ample gains. Krugman (1989) points out that it was technological advantage possessed by European countries which led to massive investment in USA .According to this theory, technological superiority is the main driving force for foreign direct investment rather that capital abundance.

1.2.3 Currency Based Approaches

A firm moves from strong currency country to weak currency country. Aliber (1971) postulates that firms from strong currency countries move out to weak currency countries. Froot and Stain (1989) holds that, depreciation in real value of currency of a country lowers the wealth of a domestic residents visa avis the wealth of the foreign residents, thus being cheaper for foreign firms to acquire assets in such countries. Therefore, foreign direct investments will move from countries with strong currencies to those with weak or depreciating currencies.

1.2.4 Location-Specific Theory

Hood and Young (1979) stress on the location factor. According to them, FDI moves to a countries with abundant raw materials and cheap labor force. Since real wage cost varies among countries, firms with low-cost technology move to low wage countries. Abundance of raw materials and cheap labor force are the main factors for FDI. Countries with cheap labor and abundant raw material will tend to attract FDI.

1.2.5 Product Cycle Theory

FDI takes place only when the product in question achieves specific stage in its life cycle-introduction, growth, maturity and decline stage. At maturity stage, the demand for new product in developed countries grow substantially and rival firms begin to emerge producing similar products at lower price. So in order to compete with rivals, innovators decide to set up production in the host country so as to

beat up the cost of transportation and tariffs.

Political-Economic Theories

They concentrate on the political risks. Political stability in the host country leads to FDI(Fatehi-Sedah and Safizeha 1989).Similarly, political instability in the home country encourages FDI in other countries(Tallman 1988).

Strategy for FDI

Firm-Specific Strategy

It means offering new kind of product or differentiated product. When product innovation fails to work, a firm may adopt product differentiation strategy. This is done through putting trade mark on the product or branding. Sometimes a firm may adopt different brands for different markets to make them suitable for local markets. Bata for example, operates in 92 countries under the same trade mark, while Uniliver's low - leather fabric washing product is marketed is market under five different brands in Western Europe.

Cost-Economic Strategy

This strategy is done through lowering cost by moving the firm to the places where there are cheap factors of production (eg. labour and raw materials).The cheapness of these factors of production reduces the cost of production and maintains an edge over other firm

Joint Venture with a Rival Firm

Sometimes when a rival firm in a host country is so powerful that it is not easy for MNC to compete, the later prefer to join hands with the host country firm for a joint venture agreement and the MNC is able to operate the host country market.

Investment Mode Strategy

This strategy depends on the move of investment favored by the host country. It depends also on the political and economic environment of the host country. If the host government does not favor a particular mode, an investing company cannot adopt it even if it is the most suitable.

Costs And Benefits Of FDI

A cost-benefit analysis is a process by which business decisions are analyzed. The benefits of a given situation or business related action are summed, and then the costs associated with taking that action are subtracted. •

Prior to erecting a new plant or taking on a new project, prudent managers conduct a cost-benefit analysis as a means of evaluating all the potential costs and revenues that may be generated if the project is completed. The outcome of the analysis will determine whether the project is financially feasible or if another project should be pursued.

Cost and benefits of FDI can be classified as two

- Cost and Benefits of the Host Country
- Cost and Benefits of the investing MNC

a) Benefits of Host Country

- **Improving the balance of payments**

  Inward investment will usually help a country's balance of payments situation. The investment itself will be a direct flow of capital into the country and the investment is also likely to result in import substitution and export promotion. Export promotion comes due to the multinational using their production facility as a basis for exporting, while import substitution means that products previously

imported may now be bought domestically.

- **Providing employment**

  FDI will usually result in employment benefits for the host country as most employees will be locally recruited. These benefits may be relatively greater given that governments will usually try to attract firms to areas where there is relatively high unemployment or a good labour supply

- **Source of tax revenue**

  Profits of multinationals will be subject to local taxes in most cases, which will provide a valuable source of revenue for the domestic government.

- **Technology transfer**

Multinationals will bring with them technology and production methods that are probably new to the host

country and a lot can therefore be learnt from these techniques. Workers will be trained to use the new technology and production techniques and domestic firms will see the benefits of the new technology. This process is known as technology transfer

- Building of economic and social infrastructure.
- Strengthening of the government budget. Stimulation of national economy
- The presence of one multinational may improve the reputation of the host country and other large corporations may follow suite and locate as well

Costs of the Host Country

- Cultural and political interference.
- Unhealthy competition to Domestic players
- Over utilization of local resources (both natural and human resources)
- Violation of human rights (child labor eg. the case of NIKE in Vietnam, APPLE in China etc)
- Threat to indigenous technology.
- Threat to local products.

Benefits of Investing MNCs

• **Access to markets**

FDI can be an effective way for you to enter into a foreign market. Some countries may extremely limit foreign company access to their domestic markets. Acquiring or starting a business in the market is a means for you to gain access

• **Access to resources**

FDI is also an effective way for you to acquire important natural resources, such as precious metals and fossil fuels. Oil companies, for example, often make tremendous FDIs to develop oil fields.

• **Reduces cost of production**

FDI is a means for you to reduce your cost of production if the labor market is cheaper and the regulations are less restrictive in the target foreign market. For example, it's a well-known fact that the shoe and clothing industries have been able to drastically reduce their costs of production by moving operations to developing countries.

• Its also likely that Investors may get investment incentives, promotion, social amenities.

Costs to Investing MNCs

• **Risk from Political Changes**. Because political issues in other countries can instantly change, foreign direct

Investment is very risky. Plus, most of the risk factors that you are going to experience are extremely

high.

• **Hindrance to Domestic Investment**. As it focuses its resources elsewhere other than the investor's home

Country, foreign direct investment can sometimes hinder domestic investment

• **Economic Non-Viability**. Considering that foreign direct investments may be capital-intensive from the point of

view of the investor, it can sometimes be very risky or economically non-viable.

•

measured in terms of cash flows. The estimation of the cash inflows and cash outflows mainly depends on future uncertainties. The risk associated with each project must be carefully analyzed and sufficient provision must be made for covering the different types of risks. **Expropriation**. Remember that political changes can also lead to expropriation, which is a scenario where the

government will have control over your property and assets. Investment abroad takes away employment

opportunities of the people in the home country.

International capital budgeting

The process through which different projects are evaluated is known as capital budgeting. Capital budgeting is defined "as the firm's formal process for the acquisition and investment of capital. It involves firm's decisions to invest its current funds for addition, disposition, modification and replacement of fixed assets".

"Capital budgeting is long term planning for making and financing proposed capital outlays"

"Capital budgeting consists in planning development of available capital for the purpose of maximizing the long term profitability of the concern"- Lynch

.The main features of capital budgeting are

a. potentially large anticipated benefits

b. a relatively high degree of risk

c. relatively long time period between the initial outlay and the anticipated return.

Significance of capital budgeting

- The success and failure of business mainly depends on how the available resources are being utilized.
- It's a main tool of financial management.
- All types of capital budgeting decisions are exposed to risk and uncertainty.
- They are irreversible in nature
- Capital rationing gives sufficient scope for the financial manager to evaluate different proposals and only viable
- project must be taken up for investments.
- Capital budgeting offers effective control on cost of capital expenditure projects. It helps the management to avoid
- over investment and under investments.

Capital budgeting process involves the following

i) Project generation: Generating the proposals for investment is the first step.

- The investment proposal may fall into one of the following categories:
- Proposals to add new product to the product line,

- proposals to expand production capacity in existing lines
- proposals to reduce the costs of the output of the existing products without altering the scale of operation.

No standard administrative procedure can be laid down for approving the investment proposal. The screening and selection procedures are different from firm to firm

ii) Project Evaluation: It involves two steps

Estimation of benefits and costs: the benefits and costs are

Once the proposal for capital expenditure is finalized, it is the duty of the finance manager to explore the different alternatives available for acquiring the funds. He has to prepare capital budget. Sufficient care must be taken to reduce the average cost of funds. He has to prepare periodical reports and must seek prior permission from the top management. Systematic procedure should be developed to review the performance of projects during their lifetime and after completion.

The follow up, comparison of actual performance with original estimates not only ensures better forecasting but also helps in sharpening the techniques for improving future forecasts.

Selection of appropriate criteria to judge the desirability of the project: It must be consistent with the firm's objective of maximizing its market value. The technique of time value of money may come as a handy tool in evaluation such proposals.

Factors influencing capital budgeting

- Availability of funds
- Structure of capital
- Taxation policy
- Government policy
- Lending policies of financial institutions
- Immediate need of the project
- Earnings
- Capital return
- Economical value of the project
- Working capital
- Accounting practice
- Trend of earnings

Methods of capital budgeting

Traditional methods

- Payback period
- Accounting rate of return method

Discounted cash flow methods

- Net present value method
- Profitability index method
- Internal rate of return method (IRR)

Merits of IRR

'It considers the time value of money. Calculation of cost of capital is not a prerequisite for adopting IRR. IRR attempts to find the maximum rate of interest at which funds invested in the project could be repaid out of the cash inflows arising from the project. It is not in conflict with the concept of maximizing the welfare of the equity shareholders.

It considers cash inflows throughout the life of the project.

Cons

- Computation of IRR is tedious and difficult to understand
- Both NPV and IRR assume that the cash inflows can be reinvested at the discounting rate in the new projects. However, reinvestment of funds at the cut off rate is more appropriate than at the IRR.
- IT may give results inconsistent with NPV method.
- This is especially true in case of mutually exclusive project

Step 1: Calculation of cash outflow

Cost of project/asset	xxxx
Transportation/installation charges	xxxx
Working capital xxxx Cash outflow	xxxx

Step 2: Calculation of cash inflow

Sales	xxxx
Less: Cash expenses	xxxx
PBDT	xxxx
Less: Depreciation	xxxx
PBT	xxxx
Less: Tax	xxxx
PAT	xxxx
Add: Depreciation	xxxx
Cash inflow p.a	xxxx

International capital structure and cost of capital

The **capital structure** is the particular combination of debt and equity used by a company to finance its overall operations and growth. Debt comes in the form of bond issues or loans, while equity may come in the form of common stock, preferred stock, or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

Many major firms throughout the world have begun to internationalize their capital structure by raising funds from foreign as well as domestic sources. As a result, these corporations are becoming multinational not only in the scope of their business activities but also in their capital structure.

By internationalizing its corporate ownership structure, a firm can generally increase its share price and lower its cost of capital. This trend reflects the ongoing liberalization and deregulation of international financial markets that make them accessible for many firms.

Cost of capital is the required return necessary to make a capital budgeting project, such as building a new factory, worthwhile. When analysts and investors discuss the cost of capital, they typically mean the weighted average of a firm's cost of debt and cost of equity blended together.

The cost of capital metric is used by companies internally to judge whether a capital project is worth the expenditure of resources, and by investors who use it to determine whether an investment is worth the risk compared to the return. The cost of capital depends on the mode of financing used. It refers to the cost of equity if the business is financed solely through equity, or to the cost of debt if it is financed solely through debt.

Many companies use a combination of debt and equity to finance their businesses and, for such companies, the overall cost of capital is derived from the weighted average cost of all capital sources, widely known as the weighted average cost of capital (WACC).

International Portfolio Management

An international portfolio is a grouping of investment assets that focuses on securities from foreign markets rather than domestic ones. An international portfolio is designed to give the investor exposure to growth in emerging and developed markets and provide diversification.

Diversification is a risk management strategy that mixes a wide variety of investments within a portfolio. A diversified portfolio contains a mix of distinct asset types and investment vehicles in an attempt at limiting exposure to any single asset or risk. The rationale behind this technique is that a portfolio constructed of different kinds of assets will, on average, yield higher long-term returns and lower the risk of any individual holding or security.

The art of selecting the right investment policy for the individuals in terms of minimum risk and maximum return is called as portfolio management.

Portfolio management refers to managing an individual's investments in the form of bonds, shares, cash, mutual funds etc so that he earns the maximum profits within the stipulated time frame.

Portfolio management refers to managing money of an individual under the expert guidance of portfolio managers.

In a layman's language, the art of managing an individual's investment is called as portfolio management.

Need for Portfolio Management

- Portfolio management presents the best investment plan to the individuals as per their income, budget, age and ability to undertake risks.
- Portfolio management minimizes the risks involved in investing and also increases the chance of making profits.
- Portfolio managers understand the client's financial needs and suggest the best and unique investment policy for them with minimum risks involved.
- Portfolio management enables the portfolio managers to provide customized investment solutions to clients as per their needs and requirements.

Types of Portfolio Management

Portfolio Management is further of the following types:

- Active Portfolio Management: As the name suggests, in an active portfolio management service, the portfolio managers are actively involved in buying and selling of securities to ensure maximum profits to individuals.
- Passive Portfolio Management: In a passive portfolio management, the portfolio manager deals with a fixed portfolio designed to match the current market scenario.
- Discretionary Portfolio management services: In Discretionary portfolio management services, an individual authorizes a portfolio manager to take care of his financial needs on his behalf. The individual issues money to the portfolio manager who in turn takes care of all his investment needs, paper work, documentation, filing and so on. In discretionary portfolio management, the portfolio manager has full rights to take decisions on his client's behalf.
- Non-Discretionary Portfolio management services: In non discretionary portfolio management services, the portfolio manager can merely advise the client what is good and bad for him but the client reserves full right to take his own decisions.

Modes of Global Portfolio Management

Foreign securities or depository receipts can be bought directly from a particular country's stock

exchange. Two concepts are important here which can be categorized as Portfolio Equity and Portfolio Bonds. These are supposed to be the best modes of GPM. A brief explanation is provided hereunder.

Portfolio Equity

Portfolio equity includes net inflows from equity securities other than those recorded as direct investment and including shares, stocks, depository receipts (American or global), and direct purchases of shares in local stock markets by foreign investors.

Portfolio Bonds

Bonds are normally medium to long-term investments. Investment in Portfolio Bond might be appropriate if

One have additional funds to invest.

One seek income, growth potential, or a combination of the two.

Global Mutual Funds

Global mutual funds can be a preferred mode if the Investor wants to buy the shares of an internationally diversified mutual fund. In fact, it is helpful if there are open-ended mutual funds available for investment.

Closed-end Country Funds

Closed-end funds invest in internationals securities against the portfolio. This is helpful because the interest rates may be higher, making it more profitable to earn money in that particular country. It is an indirect way of investing in a global economy. However, in such investments, the investor does not have ample scope for reaping the benefits of diversification, because the systematic risks are not reducible to that extent.

Drawbacks of Global Portfolio Management

Global Portfolio Management has its share of drawbacks too. The most important ones are listed below.

- Unfavorable Exchange Rate Movement -Investors are unable to ignore the probability of exchange rate changes in a foreign country. This is beyond the control of the investors. These changes greatly influence the total value of foreign portfolio and the earnings from the investment. The weakening of currency reduces the value of securities as well.
- Frictions in International Financial Market-There may be various kinds of market frictions in a foreign economy. These frictions may result from Governmental control, changing tax laws, and explicit or implicit transaction costs. The fact is governments actively seek to administer international financial flows. To do this, they use different forms of control mechanisms such as taxes on international flows of FDI and applied restrictions on the outflow of funds.
- Manipulation of Security Prices-Government and powerful brokers can influence the security prices. Governments can heavily influence the prices by modifying their monetary and fiscal policies. Moreover, public sector institutions and banks swallow a big share of securities traded on stock exchanges.

Unequal Access to Information -Wide cross-cultural differences may be a barrier to GPM. It is difficult to disseminate and acquire the information by the international investors beforehand

FDI theories-theory of comparative advantage, OLI paradigm of FDI in India:

evaluation of overseas investment proposal using APV (Simple Problems);

international cash management,

1.3 International financing:

1.3.1 Equity financing

Equity financing is the process of raising capital through the sale of shares. Companies raise money because they might have a short-term need to pay bills or they might have a long-term goal and require funds to invest in their growth. By selling shares, they sell ownership in their company in return for cash, like stock financing.

Equity financing comes from many sources; for example, an entrepreneur's friends and family, investors, or an initial public offering (IPO). Industry giants such as Google and Facebook raised billions in capital through IPOs.

Equity risk is "the financial risk involved in holding equity in a particular investment". Equity risk often refers to equity in companies through the purchase of stocks, and does not commonly refer to the risk in paying into real estate or building equity in properties.

The measure of risk used in the equity markets is typically the standard deviation of a security's price over a number of periods. The standard deviation will delineate the normal fluctuations one can expect in that particular security above and below the mean, or average. However, since most investors would not consider fluctuations above the average return as "risk", some economists prefer other means of measuring it.

1.3.2 Bond financing

Bond financing is a type of long-term borrowing that state and local governments frequently use to raise money, primarily for long-lived infrastructure assets. They obtain this money by selling **bonds** to investors. In exchange, they promise to repay this money, with interest, according to specified schedules.

International bonds

International bonds are debt instruments that are issued by a non-domestic company in order to raise money from international investors and are usually denominated in the currency of the issuing country with the primary objective to attract more investors on a large scale.

Types of International Bonds

1) Foreign bonds and Euro bonds 2) Global bonds 3) Straight Bonds 4) Floating-rate Bond 5) Floating-rate Bonds 6) Convertible bonds 7) Cocktail bonds

i) Foreign bonds and Euro bonds

Foreign Bond is a bond where foreign company issues bond denominated in the currency denomination of the foreign country. For example, an US company issues bond and raises capital in Japan denominated in Japanese Yen. In other words, the Japanese investors are not exposed to foreign exchange risk while investing in a foreign bond. At this junction it is important to understand that a Japanese company may also issue bond and raise capital in Japan denominated in Japanese Yen. But bonds issued by the Japanese company are termed as 'Domestic Bond'. In case of a foreign bond, the bond issuer is from a foreign country. An Indian company issuing USD bond in any country belonging to Middle East region is an example of foreign bond.

In **Euro bond**, a foreign company issues a bond denominated in a currency which is not the home

currency of the investors. For example, an US company issues bond and raises capital in Japan denominated in US Dollar. This will be an example Euro Bond. If the US company issues bond in Pound sterling in Japan, it will also be considered as Euro Bond. In the earlier case, it would be considered as a Euro Dollar Bond while in the later case, it would be known as Euro Sterling Bond. Historical development of Eurobond market is attributed to the unfavorable tax regime in USA during 1960s. This forced companies to issue USD denominated bond outside USA. The First Eurobond was done in 1963.

ii) Global bonds

Though very few companies have issued these bonds. In a global bond issue, the issuer offers the bonds to investors of many countries at one go. Normally these bonds are denominated in multiple currencies. Global bonds are normally issued by large multinational or transnational companies or as sovereign bonds. Global bonds can have following differences among issuer, denomination and the country in which it is being issued:

- Issuer (Issuing company's nationality)
- What is the denomination of bonds (currency) and for which country this currency is local?
- The country in which it is being issued

An example would be an Australian Bank (A) issuing a GBP Bond (B's currency) in London (B's country) and in Japan (C).

These bonds are large

- Possess high ratings
- Issued for simultaneous placement in various nations
- Traded in various regions on the basis of home market

Global bonds are sometimes also called Eurobonds but they have additional features. A Eurobond is an international bond that is issued and traded in countries other than the country in which the bond's currency or value is denominated. These bonds are issued in a currency that is not the domestic currency of the issuer.

iii) Straight Bonds

A straight bond is a bond that pays interest at regular intervals, and at maturity pays back the principal that was originally invested. A straight bond has no special features compared to other bonds with embedded options. U.S. Treasury bonds issued by the government are examples of straight bonds. A straight bond is also called a plain vanilla bond or a bullet bond.

The features of a straight bond include constant coupon payments, face value or par value, purchase value, and a fixed maturity date. A straight bondholder expects to receive periodic interest payments, known as coupons, on the bond until the bond matures. At maturity date, the principal investment is repaid to the investor. The return on principal depends on the price that the bond was purchased for. If the bond was purchased at par, the bondholder receives the par value at maturity. If the bond was purchased at a premium to par, the investor will receive a par amount less than his or her initial capital investment. Finally, a bond acquired at a discount to par means that the investor's repayment at maturity will be higher than his or her initial investment.

Types of straight bond

a) Bullet-redemption bond

A bullet bond is a debt instrument whose entire principal value is paid all at once on the maturity date, as opposed to amortizing the bond over its lifetime. Bullet bonds cannot be redeemed early by an issuer, which means they are non-callable.

b) Rising coupon bond

A bond with interest coupons that change to preset levels on specific dates. More specifically, the bond pays a given coupon for a specific period of time, and then its coupon is stepped up in regular periods until maturity. For instance, a bond may pay 6% interest for the next five years, and thereafter interest payment increases by an additional 2% every next five years until the bond matures. Typically, issuers embed rising-coupon bonds with call options which give them the right to redeem the bonds at par on the date the coupon is set to step up.

This bond is also known as a dual-coupon bond, a stepped-coupon bond, or a step-up coupon bond.

c) Zero-coupon bond

A zero-coupon bond is a debt security that does not pay interest but instead trades at a deep discount, rendering a profit at maturity, when the bond is redeemed for its full face value.

Some bonds are issued as zero-coupon instruments from the start, while others bonds transform into zero-coupon instruments after a financial institution strips them of their coupons, and repackages them as zero-coupon bonds. Because they offer the entire payment at maturity, zero-coupon bonds tend to fluctuate in price, much moreso than coupon bonds.

A zero-coupon bond is also known as an accrual bond.

d) Bonds with currency option

The investor possesses the right for receiving the payments in a currency except the currency of issue

e) Bull and bear bonds

A bull bond is a term used to refer to a bond that is likely to increase in value in a bull market. Most bonds tend to increase in value when interest rates decline, but bull bonds refer to types of bonds that do especially well in this environment. A bull bond is a specific type of bond that performs well in a bull market. The bull bond increases as interest rates decline, which distinguishes it from many other types of bonds, most of which tend to increase in price when interest rates are rising.

A bull market is a financial market marked by optimism and investor confidence. The term bull market, associated with trading in the stock market, can also apply to anything traded, such as bonds, currencies, and commodities.

4) Floating-rate Bonds

- Floating rate bonds pay coupon based on some reference interest rate, such as LIBOR.
- Unlike coupon bonds, floating rate notes do not carry a fixed nominal interest rate.

- The coupon payments are linked to the movement in a reference interest rate (frequently money market rates, such as the LIBOR) to which they are adjusted at specific intervals, typically on each coupon date for the next coupon period.
- The coupon of a floating rate bond is frequently defined as the sum of the reference interest rate and a spread of x basis points.
- Floating rate bonds may be viewed as zero coupon bonds with a face value equaling the sum of the forthcoming coupon payment and the principal because their regular interest rate adjustments guarantee interest payments in line with market conditions

A floating rate note (FRN) is a debt instrument whose coupon rate is tied to a benchmark rate such as LIBOR or the US Treasury Bill rate. Thus, the coupon rate on a floating rate note is variable. It is typically composed of a variable benchmark rate + a fixed spread.

The rate is adjusted monthly or quarterly in relation to the benchmark. The maturity period of FRN's vary but are typically in the range of two to five years.

FRN's are issued by governments, as well as private companies and financial institutions. The notes are

typically traded over-the-counter.

Example of a Floating Rate Note

A bank might issue the following floating rate note:

Principal: $1,000

Interest Rate: Federal Funds Rate +0.25

Reset Period: Three months

Maturity: Five years

This note would have a face value of $1,000. In five years the note will mature and will repay that principal. During that five years the note will have an interest rate set at the Federal Reserve's interest rate plus 0.25. For example, if the Federal Reserve rate was 2.5%, this note would bear an interest of 2.75%.

Every three months, timed to the quarterly Federal Reserve meeting, the note will update its interest rate. If the Federal Reserve rate has changed, this note will update its interest rate to match. For example, say at the board's next meeting the Federal Reserve rate falls to 2%. This floating rate note, at its next reset date, would take on an interest rate of 2.25%.

FRNs are present in various forms:

a) Perpetual FRNs

A floating-rate note (FRN) whose principal never matures, i.e., it doesn't have a redemption payment and only makes perpetual coupon payments, which are reset periodically on a fixing date by reference to a benchmark rate such as 3- or 6-month LIBOR. This instrument delivers floating-rate cash flows as long as the issuer remains in business (virtually, forever). The coupon is reset and paid on a periodic basis by adding a specific spread to the reference rate.

Perpetual FRNs are conventionally relied upon by financial institutions, such as banks, as a source of primary capital. In other words, although perpetual FRNs are essentially debt instruments, the perpetual feature bestows on them the nature of equity. In general, perpetual FRNs are classified by financial institutions as equity or quasi-equity.

A perpetual FRN is also referred to as a perpetual floater.

b) Minimax FRNs

A floating-rate note (FRN) which has a minimum and a maximum interest rate, i.e., an embedded collar. This collar has the effect of limiting the reference rate to minimum and maximum values so that the holder can confine fluctuations in the reference rate to a specific range (a lower and an upper boundary).

A mini-max FRN is also known as a mini-max floater or a collared FRN.

c) **Drop Lock FRNs\Flip-flop FRN**

A floating-rate note (FRN) which has a rate trigger allowing the interest to convert to a specified fixed rate for the remaining life of the underlying debt instrument should the floating rate reaches or drops below a pre-determined level on an interest fixing (resetting) date or on a number of consecutive fixing dates. For example, a drop-lock feature may be added to a loan so that the lender can convert the floating rate to a fixed rate if the benchmark index hits a specified floor. A drop-lock FRN is also referred to as a drop-lock floater.

d) Flip-flop FRN

A floating-rate note (FRN) that gives the bondholder the right to convert a note with a long maturity date or no maturity (no redemption date) into a note with a short maturity date. Furthermore, the bondholder has the right to convert back into the original note before the short-dated note reaches

maturity. The short-dated note typically pays a lower spread over its floating rate (LIBOR) than the the long-dated note, but this is compensated for in the possibility of receiving principal repayment by the bondholder much earlier.

A flip-flop FRN is also known as a flip-flop floater.

e) Mismatch FRN

A floating-rate note (FRN) in which the coupon is payable after more than one coupon period. That is the interest rate is refixed on a more times than the interest is paid. In this sense, a mismatch FRN differs from a standard FRN in that the dates of coupon rate refixes and coupon payment dates are not the same. For example, a coupon payment may be made after three consecutive monthly refixes. However, the rate will still be based on the six-month (or three-month) interest rate linked to the payment frequency. A mismatch FRN is also known as a mismatch floater.

f) Hybrid Fixed Rate Reverse Floating Rate Notes

A floating-rate note (FRN) that pays a high fixed rate coupon for an introductory period (first one or two years), then it pays the difference between an even higher fixed rate coupon and a floating reference rate (LIBOR). For example, this floating-rate note can be structured as follows:

Over the first two years: it pays 10%.

From the third year on, it pays: 15% - LIBOR.

Investors who expect short-term rates to fall in a future period can earn very large coupons. However, if such expectations are off-the-mark, huge losses would result.

iv) Convertible Bonds

Convertible bonds are corporate bonds that can be converted by the holder into the common stock of the issuing company. a convertible bond gives the holder the option to convert or exchange it for a predetermined number of shares in the issuing company. When issued, they act just like regular corporate bonds, albeit with a slightly lower interest rate.

Because convertibles can be changed into stock and, thus, benefit from a rise in the price of the underlying stock, companies offer lower yields on convertibles. If the stock performs poorly, there is no conversion and an investor is stuck with the bond's sub-par return-below what a non-convertible corporate bond would get. As always, there is a tradeoff between risk and return.

v) Cocktail bonds

Composite currency bonds are denominated in a currency basket, such as SDRs or ECUs, instead of a single currency. They are frequently called currency cocktail bonds. They are typically straight fixed-rate bonds. The currency composite is a portfolio of currencies: when some currencies are depreciating others may be appreciating, thus yielding lower variability overall.

Parallel Loans

Parallel loan is a four-party agreement in which two parent companies in different countries borrow money in their local currencies, then lend that money to the other's local subsidiary. The purpose of a parallel loan is to avoid borrowing money across country lines with possible restrictions and fees. Each company can certainly go directly to the foreign exchange market (forex) to secure their funds in the proper currency, but they then would face exchange risk.

The first parallel loans were implemented in the 1970s in the United Kingdom in order to bypass taxes that were imposed to make foreign investments more expensive.

Nowadays, currency swaps have mostly replaced this strategy, which is similar to a back-to-back loan.

For example, say an Indian company has a subsidiary in the United Kingdom and a U.K. firm has a subsidiary in India. Each firm's subsidiary needs the equivalent of 10 million British pounds to finance its operations and investments. Rather than each company borrowing in its home currency and then converting the funds into the other currency, the two parent firms enter into a parallel loan agreement.

The Indian company borrows 909,758,269 rupees (the equivalent of 10 million pounds) from a local bank. At the same time, the British company borrows 10 million pounds from its local bank. They each then loan the money to the other's subsidiaries, agreeing on a defined period of time and interest rate (most loans of this type come due within 10 years). At the end of the term of the loans, the money is repaid with interest, and the parent companies repay that money to their home banks. No exchange from one currency to the other was needed and, therefore, neither the two subsidiaries nor their parent firms were exposed to currency risk due to fluctuations in the rupee/pound exchange rate.

Companies might also directly make loans to each other, skipping the use of banks altogether. When the loan term ends, the company repays the loan at the fixed rate agreed upon at the beginning of the loan term, thereby ensuring against currency risk during the term of the loan.

International Cash Management

Cash has been defined in the Government Financial Statistics (GFS) manual.2 - cash on hand refers to notes, coins, and deposits held on demand by government institutional units with a bank or another financial institution. Cash equivalents are defined to be highly liquid investments that are readily convertible to cash on hand.

Cash management is necessary because there are mismatches between the timing of payments and the availability of cash. Even if the annual budget is balanced, with realistic revenue and expenditure estimates, in-year budget execution will not be smooth, since both the timing and seasonality of cash inflows (which depend in turn on tax and nontax flows, and timing of grant or loan disbursements) and of expenditures can result in conditions of temporary cash surpluses or temporary cash shortfalls. For example, if taxes are paid quarterly, there can be large temporary cash surpluses around the time taxes are due, and temporary deficits in other time periods

Storkey (2003) provides the following definition: “cash management is having the right amount of money in the right place and time to meet the government’s obligations in the most cost-effective way.” Other definitions emphasize active cash management of temporary cash surpluses and temporary deficits.

Modern cash management has four major **objectives**:

- To ensure that adequate cash is available to pay for expenditures when they are due. Pooling

revenues in a treasury single account (TSA) facilitates this.

- To borrow only when needed and to minimize government borrowing costs.
- To maximize returns on idle cash, i.e., to avoid the accumulation of unremunerated or low yielding government deposits in the central bank or in commercial banks.
- To manage risks, by investing temporary surpluses productively, against adequate collateral. Effective cash management contributes to the smooth implementation of the operational targets of fiscal policy, the public debt management strategy, and monetary policy.

Approaches of Centralized Cash Management

a) Netting

In a typical multinational family of companies, there are a large number of intra-corporate transactions between subsidiaries and between subsidiaries and the parent. If all the resulting cash flows are executed on a bilateral, pair wise basis, a large number of currency conversions would be involved with substantial transaction costs. With a centralized system, netting is possible whereby the **cash management center (CMC)** nets out receivables against payables, and only the net cash flows are settled among different units of the corporate family.

Payments among affiliates go back and forth, whereas only a netted amount need be transferred. For example, the German subsidiary of an MNC sells goods worth $1 million to its Italian affiliate that in turn sells goods worth $2 million to the German unit. The combined flows total $3 million. On the net basis, however, the German unit need remit only $1 million to the Italian unit. This is called bilateral netting. It is valuable, though only if subsidiaries sell back and forth to each other. But a large percentage of multinational transactions are internal – leading to a relatively large volume of inter-affiliate payments – the payoff from multilateral netting can be large, relative to he costs of such a system.

The netting center will use a matrix of payables and receivables to determine the net payer or creditor position of each affiliate at the date of clearing.

b) Cash Pooling

The CMC act not only as a netting center but also the repository of all surplus funds. Under this system, all units are asked to transfer their surplus cash to the CMC, which transfers them among the units as needed and undertakes investment of surplus funds and short-term borrowing on behalf of the entire corporate family. The CMC can in fact function as a finance company which accepts loans from individual surplus units, makes loans to deficit units and also undertakes market borrowing and investment. By denominating the intra-corporate loans in the units' currencies, the responsibility for exposure management is entirely transferred to the finance company and the operating subsidiaries can concentrate on their main business, viz. production and selling of goods and services. Cash pooling will also reduce overall cash needs since cash requirements of individual units will not be synchronous.

c) Collection and Disbursement of Funds

Accelerating collections both within a foreign country and across borders is a key element of international cash management. Considering either national or international collections, accelerating the receipt of funds usually involves the following:

- defining and analyzing the different available payment channels,
- selecting the most efficient method (which can vary by country and customer),

- giving specific instructions regarding procedures to the firm's customers and banks.

Management of disbursements is a delicate balancing act of holding onto funds versus staying on good terms with suppliers. It requires a detailed knowledge of individual country and supplier policies, as well as the different payment instruments and banking services available around the world. A constant review on disbursements and auditing of payment instruments help international firms achieve better cash management.

Accounts Receivables management

Meaning of the receivables management: The receivables out of the credit sales crunch the availability of the resources to meet the day today requirements. The acute competition requires the firm to sustain among the other competitors through more volume of credit sales and in the intention of retaining the existing customers. This requires the firm to sell more through credit sales only in order to encourage the buyers to grab the opportunities unlike the other competitors they offer in the market.

Objectives of Accounts Receivables

Achieving the growth in the volume of sales
Increasing the volume of profits
Meeting the acute competition

Cost of Maintaining the Accounts Receivables

Capital cost: Due to in sufficient amount of working capital with reference to more volume of credit sales which drastically affects the existence of the working capital of the firm. The firm may be required to borrow which may lead to pay certain amount of interest on the borrowings. The interest which is paid by the firm due to the borrowings in order to meet the shortage of working capital is known as capital cost of receivables.

Administrative cost: Cost of maintaining the receivables.

Collection cost: Whatever the cost incurred for the collection of the receivables are known as collection cost.

Defaulting cost: This may arise due to defaulters and the cost is in other words as cost of bad debts and so on.

Factors Affecting the Accounts Receivables

- **Level of sales***:* The volume of sales is the best indicator of accounts receivables. It differs from one firm to another.
- **Credit policies***:* The credit policies are another major force of determinant in deciding the size of the accounts receivable. There are two types of credit policies viz lenient and stringent credit policies.
- **Lenient credit policy***:* Enhances the volume of the accounts receivable due to liberal terms of the trade which normally encourage the buyers to buy more and more.
- **Stringent credit policy***:* It curtails the motive buying the goods on credit due stiff terms of the trade put forth by the supplier unlike the earlier.
- **Terms of trade***:* The terms of the trade are normally bifurcated into two categories viz credit period and cash discount

- **Credit period***:* Higher the credit period will lead to more volume of receivables, on the other side that will lead to greater volume of debts from the side of buyers.
- **Cash discount***:* If the discount on sales is more, that will enhance the volume of sales on the other hand that will affect the income of the enterprise.

Management of Accounts Payable/Financing the Resources is more important at par with the management of receivable, in order to avail the short term resources for the smooth conduct of the firm.

Inventory management

Inventory management refers to the process of ordering, storing, and using a company's inventory. These include the management of raw materials, components, and finished products, as well as warehousing and processing such items.

For companies with complex supply chains and manufacturing processes, balancing the risks of inventory gluts and shortages is especially difficult. To achieve these balances, firms have developed two major methods for inventory management: just-in-time and materials requirement planning: just-in-time (JIT) and materials requirement planning (MRP).

An inventory account typically consists of four separate categories:

- Raw materials
- Work in process
- Finished goods
- Merchandise
- Raw materials

Raw materials represent various materials a company purchases for its production process. These materials must undergo significant work before a company can transform them into a finished good ready for sale.

Work in process

Works-in-process represent raw materials in the process of being transformed into a finished product.

Finished goods

Finished goods are completed products readily available for sale to a company's customers.

Merchandise

Merchandise represents finished goods a company buys from a supplier for future resale.

The objectives of inventory management

The objectives of inventory management are to provide the desired level of customer service, to allow cost-efficient operations, and to minimize the inventory investment.

Customer Service

Customer service is a company's ability to satisfy the needs of its customers. When we talk about customer service in inventory management, we mean whether or not a product is available for the customer when the customer wants it. In this sense, customer service measures the effectiveness of the company's inventory management. Customers can be either external or internal: any entity in the supply chain is considered a customer.

A customer service measure appropriate when customer orders vary in number of line items ordered.

multinational capital structure decision, cost of capital , international portfolio diversification-rationale, barriers, home country bias,

Capital structure refers to the amount of debt vs. equity that a firm is willing and able to maintain as capital on its balance sheet without being overly leveraged • Certain countries, like those in East Asia, allow companies to be more leveraged than those in the EU or the United States • MNCs take advantage of those differences to leverage their overseas operations to enhance returns to equity holders.

Cost of capital is the weighted cost of equity and debt where the weights reflect the firm's capital structure • Cost of equity reflects the opportunity cost for investors in a country and will depend on investment alternatives and risk profile • Cost of debt is the net interest expense, i.e., net of taxes which vary with country • MNCs take advantage of differences in interest and tax rates among countries to minimize their cost of debt and capital

project financing

Key Features of Project Financing

Since a project deals with huge amount funds, it is important that you learn about this structured financial scheme. Below mentioned are the key features of Project Financing:

- **Capital Intensive Financing Scheme:** Project Financing is ideal for ventures requiring huge amount of equity and debt, and is usually implemented in developing countries as it leads to economic growth of the country. Being more expensive than corporate loans, this financing scheme drives costs higher while reducing liquidity. Additionally, the projects under this plan commonly carry Emerging Market Risk and Political Risk. To insure the project against these risks, the project also has to pay expensive premiums.
- **Risk Allocation**: Under this financial plan, some of the risks associated with the project is shifted towards the lender. Therefore, sponsors prefer to avail this financing scheme since it helps them mitigate some of the risk. On the other hand, lenders can receive better credit margin with Project Financing.
- **Multiple Participants Applicable**: As Project Financing often concerns a large-scale project, it is possible to allocate numerous parties in the project to take care of its various aspects. This helps in the seamless operation of the entire process.
- **Asset Ownership is Decided at the Completion of Project:** The Special Purpose Vehicle is responsible to overview the proceedings of the project while monitoring the assets related to the project. Once the project is completed, the project ownership goes to the concerned entity as determined by the terms of the loan.
- **Zero or Limited Recourse Financing Solution**: Since the borrower does not have

ownership of the project until its completion, the lenders do not have to waste time or resources evaluating the assets and credibility of the borrower. Instead, the lender can focus on the feasibility of the project. The financial services company can opt for limited recourse from the sponsors if it deduces that the project might not be able to generate enough cash flow to repay the loan after completion.

- **Loan Repayment With Project Cash Flow**: According to the terms of the loan in Project Financing, the excess cash flow received by the project should be used to pay off the outstanding debt received by the borrower. As the debt is gradually paid off, this will reduce the risk exposure of financial services company.
- **Better Tax Treatment**: If Project Financing is implemented, the project and/or the sponsors can receive the benefit of better tax treatment. Therefore, this structured financing solution is preferred by sponsors to receive funds for long-term projects.
- **Sponsor Credit Has No Impact on Project:** While this long-term financing plan maximises the leverage of a project, it also ensures that the credit standings of the sponsor has no negative impact on the project. Due to this reason, the credit risk of the project is often better than the credit standings of the sponsor.

What Are the Various Stages of Project Financing?

1. *Pre-Financing Stage*

- **Identification of the Project Plan** - This process includes identifying the strategic plan of the project and analysing whether its plausible or not. In order to ensure that the project plan is in line with the goals of the financial services company, it is crucial for the lender to perform this step.
- **Recognising and Minimising the Risk** - Risk management is one of the key steps that should be focused on before the project financing venture begins. Before investing, the lender has every right to check if the project has enough available resources to avoid any future risks.
- **Checking Project Feasibility** - Before a lender decides to invest on a project, it is important to check if the concerned project is financially and technically feasible by analysing all the associated factors.

2. *Financing Stage*

Being the most crucial part of Project Financing, this step is further sub-categorised into the following:

- **Arrangement of Finances** - In order to take care of the finances related to the project, the sponsor needs to acquire equity or loan from a financial services organisation whose goals are aligned to that of the project
- **Loan or Equity Negotiation** - During this step, the borrower and lender negotiate the loan amount and come to a unanimous decision regarding the same.
- **Documentation and Verification -** In this step, the terms of the loan are mutually decided and documented keeping the policies of the project in mind.
- **Payment** - Once the loan documentation is done, the borrower receives the funds as agreed previously to carry out the operations of the project.

3. *Post-Financing Stage*

- **Timely Project Monitoring** - As the project commences, it is the job of the project manager to monitor the project at regular intervals.

- **Project Closure** - This step signifies the end of the project.
- **Loan Repayment** - After the project has ended, it is imperative to keep track of the cash flow from its operations as these funds will be, then, utilised to repay the loan taken to finance the project.

Types of Sponsors in Project Financing

In order to determine the objective of the project and the risks related to it, it is important to know the type of sponsor associated with the project. Broadly categorised, there are four types of project sponsors involved in a Project Financing venture:

- **Industrial sponsor** - These type of sponsors are usually aligned to an upstream or downstream business in some way.
- **Public sponsor** - The main motive of these sponsors is public service and are usually associated with the government or a municipal corporation.
- **Contractual sponsor** - The sponsors who are a key player in the development and running of plants are Contractual sponsors.
- **Financial sponsor** - These type of sponsors often partake in project finance initiatives and invest in deals with a sizeable amount of return.

UNIT-5

Types of risk-currency risk, transaction exposure, translation exposure, accounting standard for translation exposure in India, economic exposure and assessment; interest rate risk, country risk assessment–political risk, financial risk; risk management through hedging-natural hedges, hedges with currency derivatives–forward market hedge, options market hedge, money market hedge, hedging recurrent exposure through swaps, hedging contingent exposure, hedging through invoice currency. Types of tax–income tax, withholding tax, value added tax, Tobin tax; taxation methods– worldwide approach, territorial approach; tax havens, offshore financial centres, reinvoicing centre.

Types of risk-currency risk, transaction exposure, translation exposure, accounting standard for translation exposure in India.

Translation exposure is a kind of accounting risk that arises due to fluctuations in currency exchange rates.

The assets, liabilities, equities, and earnings of a subsidiary of a multinational company are usually denominated in the currency of the country it is situated in. If the parent company is situated in a country with a different currency, the values of the holdings of each subsidiary need to be converted into the currency of the home country.

Such conversion can lead to certain inconsistencies in calculating the consolidated earnings of the company if the exchange rate changes in the interim period. It is translation exposure.

Measurement of Translation Exposure

Translation exposure can often depict a distorted representation of a company's international holdings if foreign currencies depreciate considerably compared to the home currency.

Accountants can choose among several options while converting the values of foreign holdings into domestic currency. They can choose to convert at the current exchange rate or at a historical rate prevalent at the time of occurrence of an account.

Whichever rate they choose, however, needs to be used consistently for several years, in accordance with the accounting principle of consistency. The consistency principle requires companies to use the same accounting techniques over time to maintain uniformity in the books of account.

In case a new technique is adopted, it should be mentioned clearly in the footnotes of the financial statements.

Consequently, there are four methods of measuring translation exposure:

1. Current/Non-current Method

The values of current assets and liabilities are converted at the exchange rate that prevails on the date of the balance sheet. On the other hand, non-current assets and liabilities are converted at a historical rate.

Items on a balance sheet that are written off or converted into cash within a year are called current items, such as short-term loans, bills payable/receivable, and sundry creditors/debtors. Any item that remains on the balance sheet for more than a year is a non-current item, such as machinery, building, long-term loans, and investments.

Consider the following balance sheet of a European subsidiary of an American company, which follows the method. Assume that the historical exchange rate is €1 = $1.20, and the current rate is €1 = $1.15.

Monetary/Non-monetary Method

All monetary accounts are converted at the current rate of exchange, whereas non-monetary accounts are converted at a historical rate.

Monetary accounts are those items that represent a fixed amount of money, either to be received or paid, such as cash, debtors, creditors, and loans. Machinery, buildings, and capital are

examples of non-monetary items because their market values can be different from the values mentioned on the balance sheet.

Current Rate Method

The current rate method is the easiest method, wherein the value of every item in the balance sheet, except capital, is converted using the current rate of exchange. The stock of capital is evaluated at the prevailing rate when the capital was issued.

Temporal Method

The temporal method is similar to the monetary/non-monetary method, except in its treatment of inventory. The value of inventory is generally converted using the historical rate, but if the balance sheet records inventory at market value, it is converted using the current rate of exchange.

In the example above, if there is an inventory of goods recorded in the balance sheet at its historical value of, say €1,000, its value in dollars after conversion will be $(1,000 x 1.2), or $1,200.

However, if the inventory of goods is recorded at the current market value of, say €1,050, then its value will be $(1,050 x 1.15), or $1,207.50.

economic exposure and assessment; interest rate risk, country risk assessment–political risk, financial risk;

Management of economic exposure international finance: Operating exposure- the extent to which the firm's operating cash flows would be affected by random changes in exchange rates. Operating exposure cannot be determined from accounting statements as transaction exposure. Explain the competitive and conversion effects of exchange rate changes on the firm's operating cash flow. Competitive effect: how depreciation/appreciation affect operating cash flow by altering the firm's competitive position in the marketplace. This depends on the market structure of inputs and products: how competitive or monopolistic the markets facing the firm are. Conversion effect: how depreciation/appreciation changes the operating cash flow by the firm's ability to adjust its markets, product mix, and sourcing in response to exchange rate changes.

risk management through hedging-

1. Avoiding the Risk

Avoidance should be the first option to consider when it comes to risk control. For example, if you are transferring sensitive data from one location to another, you can avoid the risk of having it stolen if you don't leave it in your car overnight. Another, perhaps more obvious example, is paying clients with checks rather than mailing cash.

2. Retaining the Risk

Sometimes it's preferable to keep your level of risk as it is because the cost of avoiding the risk is more than the cost of damage or loss. Often, we retain risk without even thinking about it. For example, if you have $100 in petty cash in a locked drawer in your office, there is always the chance someone could steal it. However, the cost of a wall safe would greatly exceed the amount of money you would be protecting.

3. Spreading the Risk

Spreading the risk is often an inexpensive way of reducing the chances of a calamity. To protect digital information, for example, it's a common practice to back up computer storage. This protects the data from a drive error, viruses and malware. Moving the back-up drive to a separate building spreads the risk even more thinly, protecting the data from physical theft or a fire in one building. Companies with extremely valuable data often spread the risk even further by putting a copy of the data in a different city.

4. Preventing or Reducing Loss

When exposing yourself or your company to risk is unavoidable, you can often reduce or eliminate losses by taking safeguards against it. For example, if you own a hardware store, it's unlikely that you can eliminate the chance of theft when your store is closed for the night. However, purchasing an alarm system may be enough to make potential thieves avoid breaking in at night. If they do break a window, having an alarm sound and having the police dispatched to your store would reduce the amount the thieves could steal before they would be forced to flee.

5. Transferring the Risk

Transferring risk should usually be the last risk management technique you should use. Two common examples include transferring the risk to another party in a contract and the purchase of insurance. For example, a delivery company may contractually transfer the risk of damage to packages to either the shipper or the receiver. A second way this company could transfer the risk is by purchasing insurance so that if a package is damaged, the insurance company absorbs the loss.

Developing Risk Management Strategies

Every business has a unique set of risks, which can vary from year-to-year and even from one project to another. One method of managing risk and determining which strategies you should use is to list the potential risks, rate the probability of them occurring and then to decide which strategy is best to deal with each one.

In most cases, you should be able to use a combination of experience along with industry data to determine the likelihood of a risk. Of course, relying solely on experience in itself will seldom give you accurate data. If you're constructing a new building, for example, there is usually some risk of flood damage in the future. Just because there has not been a flood in recent years does not mean a flood is unlikely. Even if U.S. Geological Survey data indicates, there is only a 1-percent chance of a flood, that equates to a 26-percent chance over the next 30 years.

A **hedge** is a transaction that limits the risk associated with fluctuations in the price of a commodity, currency, or financial instrument. A hedge is accomplished by taking offsetting positions in the ownership of an asset or security through the use of derivative securities, such as buying or selling a forward contract, a futures contract, or an option to offset risk exposure in the cash market.

Forward Contracts

A **forward contract** is an agreement to buy or sell an asset at some point in time in the future at a specified price agreed to at the time the contract is purchased or sold. The specified price is called the *delivery price*, and it remains fixed during the term of the contract. The party that agrees to buy the asset in the future is said to have taken a *long* position, whereas the party that agrees to sell the asset has a *short* position. The *spot price* is the current price of the asset. A rise (fall) in the spot price generates a profit (loss) for the holder of the long position and a loss (profit) for the holder of the short position. In a typical forward contract, cash flows are exchanged between the buyer and the seller only on the maturity date of the contract. Because forward contracts can be executed for any quantity of an asset and for any maturity date, they are generally not liquid, that is, there is no organized market for the purchase and sale of forward contracts.

Also, because no cash flows exchange hands until maturity, forward contracts are said to possess *performance risk.* Performance risk is the risk that at maturity the party that has losses from the contract may fail to make the necessary payments to the party with the gains from price movements in the contract. Forward contracts are most common in the foreign currency markets.

Figure shows foreign currency exchange rates for a number of countries. This table shows forward rates of exchange between the dollar and several key currencies including the Canadian dollar, the Japanese yen, the Swiss franc, and the U.K. pound. These exchange rates apply to trading between large banks for amounts of $1,000,000 or more. Because of the financial strength and trust between major banks, there is virtually no performance risk when these contracts are executed.

Futures Contracts

A **futures contract** is a standardized contract, traded on an organized exchange, to buy or sell an asset at a specified future time at a specified price. The specified price is known as the *delivery price.* The party that agrees to buy a futures contract is said to have a *long* position, and the party that agrees to sell a futures contract is said to have a *short* position. The current price of the asset in question is known as the *spot price*. Hence, a rise in the spot price leads to a profit for those holding a long position in the futures contract and a loss for those holding a short position.

Forward and Spot Foreign Currency Exchange Rates

Forward and Spot Foreign Currency Exchange Rates

Exchange Rates February 24, 2004

The foreign exchange mid-range rates below apply to trading among banks in amounts of $1 million and more, as quoted at 4 p.m. Eastern time by Reuters and other sources. Retail transactions provide fewer units of foreign currency per dollar.

	U.S. $ Equivalent		Currency per U.S. $	
Country	Tue	Mon	Tue	Mon
Argentina (Peso)-y	.3431	.3422	2.9146	2.9223
Australia (Dollar)	.7801	.7712	1.2819	1.2967
Bahrain (Dinar)	2.6525	2.6525	.3770	.3770
Brazil (Real)	.3378	.3378	2.9603	2.9603
Canada (Dollar)	.7523	.7482	1.3293	1.3365
1-month forward	.7515	.7474	1.3307	1.3380
3-months forward	.7501	.7459	1.3332	1.3407
6-months forward	.7482	.7441	1.3365	1.3439
Chile (Peso)	.001708	.001696	585.48	589.62
China (Renminbi)	.1208	.1208	8.2781	8.2781
Colombia (Peso)	.0003753	.0003759	2664.54	2660.28
Czech. Rep. (Koruna)				
Commercial rate	.03896	.03851	25.667	25.967
Denmark (Krone)	.1702	.1685	5.8754	5.9347
Ecuador (US Dollar)	1.0000	1.0000	1.0000	1.0000
Egypt (Pound)-y	.1619	.1616	6.1751	6.1889
Hong Kong (Dollar)	.1286	.1286	7.7760	7.7760
Hungary (Forint)	.004908	.004836	203.75	206.78
India (Rupee)	.02210	.02210	45.249	45.249
Indonesia (Rupiah)	.0001183	.0001185	8453	8439
Israel (Shekel)	.2239	.2240	4.4663	4.4643
Japan (Yen)	.009245	.009226	108.17	108.39
1-month forward	.009253	.009234	108.07	108.30
3-months forward	.009270	.009251	107.87	108.10
6-months forward	.009298	.009279	107.55	107.77
Jordan (Dinar)	1.4113	1.4113	.7086	.7086
Kuwait (Dinar)	3.3941	3.3936	.2946	2947
Lebanon (Pound)	.0006603	.0006603	1514.46	1514.46
Malaysia (Ringgit)-b	.2632	.2632	3.7994	3.7994
Malta (Lira)	2.9607	2.9365	.3378	.3405
Mexico (Peso)				
Floating rate	.0901	.0906	11.0939	11.0400
New Zealand (Dollar)	.6904	.6817	1.4484	1.4669
Norway (Krone)	.1438	.1427	6.9541	7.0077
Pakistan (Rupee)	.01746	.01745	57.274	57.307
Peru (new Sol)	.2879	.2878	3.4734	3.4746
Philippines (Peso)	.01780	.01778	56.180	56.243
Poland (Zloty)	.2594	.2581	3.8551	3.8745
Russia (Ruble)-a	.03505	.03507	28.531	28.514
Saudi Arabia (Riyal)	.2667	.2667	3.7495	3.7495
Singapore (Dollar)	.5926	.5895	1.6875	1.6964
Slovak Rep. (Koruna)	.03116	.03090	32.092	32.363
South Africa (Rand)	.1522	.1510	6.5703	6.6225
South Korea (Won)	.0008522	.0008478	1173.43	1179.52
Sweden (Krona)	.1376	.1365	7.2674	7.3260
Switzerland (Franc)	.8054	.7956	1.2416	1.2569
1-month forward	.8059	.7961	1.2408	1.2561
3-months forward	.8071	.7972	1.2390	1.2544
6-months forward	.8089	.7989	1.2362	1.2517
Taiwan (Dollar)	.03008	.03008	33.245	33.245
Thailand (Baht)	.02551	.02547	39.200	39.262
Turkey (Lira)	.00000076	.00000075	1315789	1333333
U.K. (Pound)	1.8914	1.8668	.5287	.5357
1-month forward	1.8868	1.8623	.5300	.5370
3-months forward	1.8772	1.8528	.5327	.5397
6-months forward	1.8625	1.8380	.5369	.5441
United Arab (Dirham)	.2723	.2723	3.6724	3.6724
Uruguay (Peso)				
Financial	.03390	.03390	29.499	29.499
Venezuela (Bolivar)	.000521	.000521	1919.39	1919.39
SDR	1.4922	1.4886	.6702	.6718
Euro	1.2686	1.2555	.7883	.7965

Special Drawing Rights (SDR) are based on exchange rates for the U.S. British, and Japanese currencies. Source: International Monetary Fund. a-Russian Central Bank rate. b-Government rate. y-Floating rate.

Source: *The Wall Street Journal* (February 24, 2004).

Futures contracts require daily settlement between the buyer and seller for gains and losses. For example, assume that Cone Mills buys a futures contract for the delivery of 50,000 pounds of cotton, three months hence, at a price of 70 cents per pound. As the buyer of the contract, if the price of cotton rises to 71 cents per pound the day after the contract has been purchased, Cone Mills has a profit of 1 cent per pound, or $500. The seller of the contract, Texas Cotton Cooperative, has an identical loss. Under the rules of the New York Cotton Exchange (NYCE), the exchange where cotton futures are traded, the losers must pay the winners each day. This is called *marking to market.*

Performance on a contract is guaranteed both by the requirement to mark to market and by the requirement that both parties maintain a *margin account,* or performance bond with their broker. The funds placed in the margin account are used to assure that losers have sufficient resources to pay the winners each day. If the amount in the margin account slips below the minimum required, the broker will demand that more funds be added to the account. If that is not done

immediately, the broker will liquidate the position of the account holder. A "clearing house" operated by the exchange handles all payments between buyers and sellers over the life of the contract. In essence, all contracts are purchased from the clearinghouse or sold by the clearinghouse. The combination of the clearinghouse and margin accounts assures performance under the terms of all futures contracts.

When a futures contract matures, the buyer of the contract has the option of either taking delivery of the commodity underlying the contract or reversing its position by making an offsetting transaction. Only rarely do contract buyers (long position) take delivery. It is much more common for them to reverse their positions just prior to expiration buy selling an identical contract.

Because the buyer has purchased a contract (the original transaction) and sold an identical contract (normally just prior to expiration), the clearinghouse recognizes these transactions as offsetting each other. The opposite is true of the seller (short position) of the contract. The seller will have to purchase a contract to offset their short position.

A Long Hedge

is a table of metal futures prices traded on the COMEX (CMX), a division of the New York Mercantile Exchange, as of February 24, 2004. As can be seen, copper contracts are for 25,000 pounds of copper and the prices are quoted in cents per pound. The column headed as "SETTLE" is the closing price of the contract for that day. The column headed as "OPEN INT" indicates the number of contracts that have been bought and sold and remain outstanding.

Suppose that on February 24, 2004,Halstead Industries anticipates the need for 100,000 pounds of copper in late June 2004 to meet its obligations under a contract to deliver copper tubing to an appliance manufacturer. Halstead has a number of choices. First, it could simply wait until June and buy the copper it needs. This choice, however, poses a risk that copper prices will rise, reducing the profitability of the contract with the appliance manufacturer.

A second alternative is to buy today the copper it needs to fulfill the contract and store it until it is needed in June. The disadvantage of this alternative is the fact that Halstead will have a considerable amount of money tied up in this raw materials inventory, plus Halstead would have to pay to store the copper.

Alternatively, Halstead could execute what is called a *long hedge*; that is, Halstead could buy four copper futures contracts for June delivery at the June futures price, as of February 24, 2004. Assume that the purchase occurred at the closing price of the June contract of 132.2 cents per pound. The futures price represents a market-determined expectation of what the price of copper will be in late June. As time passes leading up to June, assume that the price of copper has risen to 150 cents per pound, because of a worldwide economic recovery and developing shortages of copper. If Halstead had remained unhedged, it would have had a loss of 17.8 cents per pound (150 cents minus 132.2 cents), or $17,800. By purchasing the copper futures contracts, this loss in the cash market is offset by profits in the futures market.

A Short Hedge

Another type of hedge transaction is called a *short hedge.* Consider the case of the Battle Mountain Copper Company. Battle Mountain has agreed on February 24, 2004, to sell 50,000 pounds of copper that it has not yet produced to Ford Motor Company for delivery in late May 2004 at an expected price of 132.85 cents per pound, the price of May copper futures contracts. Battle Mountain knows that this will be a profitable transaction because its cost of production is less than the expected sales price. However, it is possible that between February and May, the spot price of copper may decline, such that Battle

Selected Metal Futures Contract Prices

Selected Metal Futures Contract Prices

Metal Futures — February 24, 2004

	OPEN	HIGH	LOW	SETTLE	CHG	LIFETIME HIGH	LIFETIME LOW	OPEN INT
Copper-High (CMX)-25,000 lbs. ¡ cents per lb.								
Feb	131.20	131.20	130.95	132.55	1.30	134.90	67.20	267
Mar	131.35	133.00	130.20	132.60	1.25	135.95	69.75	26,389
Apr	131.30	132.40	131.30	132.75	1.50	133.65	71.95	1,688
May	131.00	133.00	129.50	132.85	1.70	134.60	70.90	36,860
June	131.30	131.30	130.60	132.20	1.80	131.30	73.50	985
July	130.20	131.10	127.00	131.05	1.70	132.70	70.90	6,749
Sept	127.70	128.00	127.50	129.15	1.85	130.00	70.95	2,927
Dec	123.10	125.50	123.10	125.65	2.10	125.50	74.20	6,362
Est vol 40,000; vol Mon 28,630; open int 84,769, +1,030.								
Gold (CMX)-100 troy oz.; $ per troy oz.								
Feb	401.60	403.20	399.00	404.50	5.50	431.50	322.00	164
Apr	399.50	405.00	396.10	404.80	5.50	432.30	320.00	144,857
June	400.30	406.00	397.30	405.80	5.50	432.00	287.00	32,747
Aug	403.00	406.60	403.00	406.70	5.50	431.30	324.70	8,841
Dec	403.10	409.00	400.50	408.60	5.50	434.50	290.00	23,468
Au05	410.70	410.70	410.70	412.70	5.50	414.00	379.00	1,374
Est vol 37,000; vol Mon 39,174: open int 239,815, –4,050.								
Platinum (NYM)-50 troy oz.; $ per troy oz.								
Apr	842.00	858.80	842.00	856.10	16.10	868.00	677.00	6,865
July	847.50	850.00	847.00	847.10	16.10	854.00	801.00	443
Est vol 570; vol Mon 533; open int 7,330, –60.								
Silver (CMX)-5,000 troy oz.; cnts per troy oz.								
Feb	...	...	...	661.9	13.2	654.5	611.5	40
Mar	655.0	663.5	641.5	662.2	13.2	688.0	437.0	44,834
May	656.0	666.0	643.0	664.1	13.2	689.0	445.0	42,822
July	652.5	665.0	644.0	665.3	13.1	689.5	436.0	6,614
Sept	656.0	665.5	656.0	666.7	13.1	690.0	477.0	1,579

Source: *The Wall Street Journal* (February 24, 2004).

Mountain would be forced to sell the copper at a loss. To protect against this possibility, Battle Mountain could use the copper futures market to set up a short hedge. A short hedge in copper is illustrated in Table. As this example illustrates, the short hedge has protected Battle Mountain from the unanticipated price decline for copper between February and May. Although both of these examples illustrate perfect hedges, in real-world hedging situations it is extremely difficult to perfectly hedge the risks illustrated here. Hedging is difficult to do perfectly because: (1) the available futures contract sizes may not match the hedging needs of the firm; and (2) there may be a change in the relationship between the futures price and the local spot price, so-called basis risk. Nevertheless, it is often possible to set up effective hedges of price risk using these hedging strategies.

A Long Hedge in Copper

A Long Hedge in Copper

Cash Market	Futures Market
February 24, 2004	
Halstead anticipates a need for 100,000 pounds of copper in late June 2004 and anticipates paying 132.2 cents per pound, or a total of $132,200.	Halstead buys four 25,000-pound June futures contracts at 132.2 cents per pound, or a total cost of $132,200.
June 24, 2004—The spot price of copper has risen to 150 cents per pound.	
Halstead buys 100,000 pounds of copper from a local metals dealer at 150 cents per pound for a total cost of $150,000.	Halstead sells four 25,000-pound June futures contracts at 150 cents per pound or a total of $150,000.
Loss in cash market: $17,800	**Profit in futures market: $17,800**

Halstead anticipates a need for 100,000 pounds Halstead buys four 25,000-pound June futures of copper in late June 2004 and anticipates paying contracts at 132.2 cents per pound, or a total cost 132.2 cents per pound, or a total of $132,200. of $132,200. *June 24, 2004*—The spot price of copper has risen to 150 cents per pound. Halstead buys 100,000 pounds of copper from a Halstead sells four 25,000-pound June futures local metals dealer at 150 cents per pound for a contracts at 150 cents per pound or a total of total cost of $150,000. $150,000.

A Short Hedge in Copper

Cash Market	Futures Market
February 24, 2004	
Battle Mountain anticipates the sale of 50,000 pounds of copper in late May 2004 and expects to receive 132.85 cents per pound, or $66,425.	Battle Mountain sells two 25,000-pound May 2004 futures contracts for copper at 132.85 cents per pound, or $66,425.
May 24, 2004—The spot price of copper has fallen to 125 cents per pound.	
Battle Mountain sells 50,000 pounds of copper to Ford Motor at the May spot price of 125 cents per pound for a total of $62,500.	Battle Mountain buys two 25,000-pound May 2004 futures contracts for copper at 125 cents per pound, or $62,500.
Loss in cash market: $3,925	**Profit in futures market: $3,925**

Types of tax–income tax, withholding tax, value added tax, Tobin tax

James Tobin's purpose in developing his idea of a currency transaction tax was to find a way to manage exchange-rate volatility. In his view, "currency exchanges transmit disturbances originating in international financial markets. National economies and national governments are not capable of adjusting to massive movements of funds across the foreign exchanges, without

real hardship and without significant sacrifice of the objectives of national economic policy with respect to employment, output, and inflation."

Tobin saw two solutions to this issue. The first was to move "toward a common currency, common monetary and fiscal policy, and economic integration."[1] The second was to move "toward greater financial segmentation between nations or currency areas, permitting their central banks and governments greater autonomy in policies tailored to their specific economic institutions and objectives."[1] Tobin's preferred solution was the former one but he did not see this as politically viable so he advocated for the latter approach: "I therefore regretfully recommend the second, and my proposal is to throw some sand in the wheels of our excessively efficient international money markets."

Tobin's method of "throwing sand in the wheels" was to suggest a tax on all spot conversions of one currency into another, proportional to the size of the transaction.[1] In the development of his idea, Tobin was influenced by the earlier work of John Maynard Keynes on general financial transaction taxes.

taxation methods– worldwide approach, territorial approach; tax havens, offshore financial centres, reinvoicing centre.

Depreciation Method

Owners who purchased Manufactured/Mobile Homes prior to January 1, 2000, are taxed using a method of depreciation and the full tax rate. This tax rate is not subject to H.B. 920 reduction factors. This method uses the sale price of the Manufactured or Mobile Home which is multiplied by either 95% for unfurnished or 80% if the home is furnished. This amount is known as the depreciated value which is multiplied by 40% to create the assessed value. The assessed value is multiplied by the full tax rate to calculate the yearly taxes.

Every year an additional 5% depreciation is deducted from the 95% or 80% until it reaches a minimum of 50% for unfurnished or 35% for furnished manufactured or mobile homes (see example). Manufactured or Mobile Home Owners whose home has been purchased prior to January 1, 2000 can stay on this method or elect to change to the new method known as the Appraised Method.

Appraised Method

All Manufactured or Mobile Homes that are purchased or otherwise transferred after January 1, 2000 or elect to convert to this method will be taxed like Real Property. Under the Appraised Method all homes will be appraised for Market Value by the County Auditor, similar to the way Real Property is valued. These values will be adjusted every 3 years on the same schedule as Real Property.

This method will use the appraised value multiplied times 35% assessment factor to create the assessed value. The assessed value will be multiplied by the effective tax rate to calculate the gross tax. This method is also entitled to the 10% rollback and 2½% owner occupied credit, same as Real Property owners. To calculate the net taxes, the 10% Rollback and 2 1/2% owner occupied credit (if applicable) are deducted to create the net taxes for the year (see example).

In a pure worldwide tax system, resident individuals and entities are taxable on their worldwide income regardless of where the income is derived. By contrast, in a pure territorial tax system, the country taxes only income derived within its borders, irrespective of the residence of the taxpayer.

There have been proposals that the United States move from a worldwide tax system (its current tax system) to a territorial tax system. As alluded to earlier, under the territorial system most income earned overseas would not be taxed in the United States. Therefore, if the United States moves toward the territorial system the taxpayer will need to model and think about what a territorial system might mean. Specifically, the system would not offer the same strategies to reduce U.S. taxes, such as by foreign tax credits. However, a territorial system should eliminate the need for complicated rules such as the controlled foreign corporation (CFC or Subpart F) rules and the passive foreign investment company (PFIC) rules that subject foreign earnings to current U.S. taxation in certain situations.