GLOBAL FINANCE AND FINANCIAL MANAGEMENT

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Dr. A. Saravanakumar *M.Com (CA), MBA, M.Phil, Ph.D.,*

Head and Assistant Professor, Department of Commerce,

Rathinam College of Arts and Science (Autonomous),

Coimbatore, Tamil Nadu, India

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UNIT I - (A)

GLOBAL FINANCIAL MARKETS

Objectives

- To know the meaning and rationale of globalization.
- To understand the emerging challenges at global level.
- To get an idea about various approaches to finance function.
- To know the dynamic forces of international financial markets.

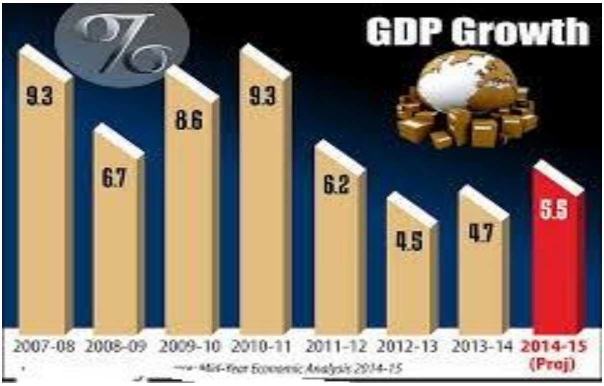
INTRODUCTION

Financial management in global level is concerned with the management of international business related financial functions commonly known as international financial functions. These activities include normally international trade of goods and services and also international production of goods and provision of services normally under the garb of foreign direct investment.

THE EMERGING CHALLENGES AT GLOBAL LEVEL

Emerging market economies proved surprisingly resilient during the global crisis, but some of them weathered the crisis better than others. The global recession has thrown up one big surprise—the resilience of emerging markets during the worst of the crisis and their rapid bounce-back to high growth. Not all emerging markets did as well as those in Asia, but even those in Latin America and Africa did better than expected given their histories of growth collapses and crises when advanced economies went into recession and capital flows dried up. Growth calculations use real GDP growth rates for each country and are weighted by purchasing power parity.

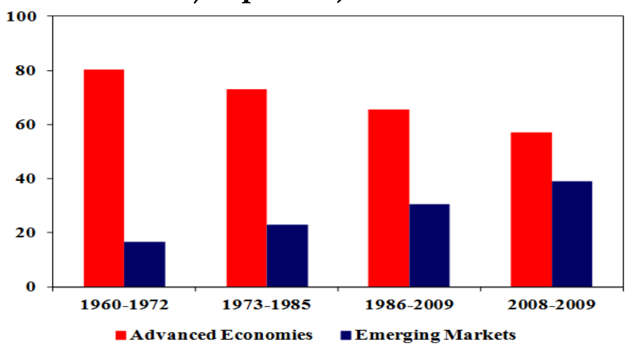
Emerging markets growth bouncing back (growth rate of GDP, % change from a year earlier)



Source: World Economic Outlook, October 2014

As Kose and Prasad (2011), emerging markets have come of age and cemented their roles as key drivers of global growth. But there are some serious domestic challenges they need to tackle to lock in high growth. They also need to shoulder responsibilities that come with being major players on the world economic stage.

Bigger players in the global economy (Fraction of group GDP relative to world total, in percent)



The values correspond to period averages as a share of world GDP computed using PPP exchange rates. The sum does not equal 100% because not all economies are counted (only advanced and emerging).

FINANCE-CONCEPT

"Money is an arm or a leg. You either use it or lose it" – Henry Ford.

This statement of Hendry Ford, though apparently simple, is quite meaningful. It brings home the significance of money or finance. A budding concern may need a small amount of money; and yet it may be difficult for it to commence business simply because it is not in a position to get required funds.

A firm's success and to say the lease, its survival depend upon how efficiently it is able to generate funds, as and when needed. Finance holds the key to all activities. It depends upon how productively money is utilized in the organization. "Finance" guides and regulates investment decisions and expenditure. The expenditure decisions may pertain to recurring expenditure or they may be about capital expenditure programmes or capital budgeting. Financial decisions must be viewed in the light of the financial viability of each activity. Every policy decision must be viewed in the light of its financial repercussions. It is difficult to conceive a policy decision which does not have financial implications. Moreover, business activities are not mutually exclusive; their dependence on each other can be measured only in terms of finance.

The two segregations of finance are direct and indirect. **Direct finance** represents an improvement over rudimentary finance in that the obstacles to efficient capital formation in the latter are eliminated in the former. The term 'direct', as applied to the financial organisation, signifies that savings are affected directly from the saving-surplus units without the intervention of such financial institutions as investment companies, insurance companies, unit trusts, and so on. **Indirect finance** refers to the flow of savings from the savers to the entrepreneurs through such intermediary financial institutions as investment companies, unit trusts and insurance companies, and so on.

IMPORTANCE OF CORPORATION FINANCE

Finance is the life blood and nerve centre of business, just as circulation of blood is essential in the human body for maintaining life, finance is very essential to smooth running of the business. The importance of corporation finance has arisen because of the fact that present day business activities are predominantly carried on company or corporate form of organisation. The advent of corporate enterprises has resulted into:

- The increase in size and influence of the business enterprises
- Wide distribution of corporate ownership, and
- Separation of ownership and management

The knowledge of the discipline of Corporate Finance is important not only to the practicing managers, but also to others who deal with a corporate enterprise, such as investors, lenders, bankers, creditors etc., as there is always a scope for the management to manipulate and 'window dress' the financial statements.

FINANCE FUNCTION

Finance function is the most important of all business functions. It remains a focus of all activities. It starts with the setting up of an enterprise and remains at all times. The development an expansion of business rather needs more commitment for funds. The funds will have to be raised from various sources. The sources will be selected in relation to the implications attached with them. The management should have an idea of using the money profitably. It may be easy to raise funds but it may be difficult to repay them. The inflows and outflows of funds should be properly matched.

ORGANISATION OF THE FINANCE FUNCTION

The finance function in a firm can be conveniently divided into two sub-functions viz. accounting and control and treasury management. The two groups of tasks are by dependent. Decision taken by the treasurer has implications for the controller and vice versa with a continuous exchange of information between them. Treasurer looks after financial planning analysis, fund acquisition, investment financing, cash management, investment decisions and risk management. The controller responsibility is to focus on external reporting, tax planning and management, MIS, financial and management accounting, budget planning control and accounts receivable. While both the control and treasury management aspects of the finance function are important and complementary. The complexity and challenge of international finance are due to the fact that a wide variety of instruments, products, funding options and investment vehicles are available for both reactive and pro-active management of corporate finance. At this stage the finance manager is also concerned with operating decisions such as choice of markets, sourcing of inputs, etc. Decisions which would normally be left to the marketing and purchase departments, have significant implications for the company's exposure to changes in exchange rates and interest rates in a multinational context. The finance manager would be expected to make substantive contributions to these decisions. The finance function supports the management in the formulation of strategic goals and then supports the corporate effort to attain these goals.

VARIOUS APPROACHES TO FINANCE FUNCTION

There are number of approaches is related with finance function but for the sake of convenience, various approaches are segregated into two broad categories:

- **The Traditional Approach:** This approach to the finance function related to the initial stages of its evolution during 1920's and 1930's when the term 'corporation finance' was used to describe what is known in the academic world today as the 'financial management'. It was confined to only procurement of funds needed by a business on most suitable terms. However, institutions and instruments for raising funds were considered to be a part of finance function. The limitations of this approach are: 1. It is outsider-looking in approach that completely ignores internal decision making as to the proper utilization of funds. 2. The focus of traditional approach was on procurement of long-term funds. Thus, it ignored the important issue of working capital finance and management. 3. The issue of allocation of funds, which is so important today, is completely ignored. 4. It does not lay focus on day to day financial problems of an organisation.

- **The Modern Approach:** This approach includes both rising of funds as well as their effective utilization under the purview of finance. The finance function does not stop only by finding out sources of raising enough funds; their proper utilization is also to be considered. The cost of raising funds and the returns from their use should be compared. The funds raised should be able to give more returns than the costs involved in procuring them. Finance has to be considered as an integral part of overall management. This approach, covers financial planning, rising of funds, allocation of funds, financial control etc. The modern approach considers the three basic management decisions i.e., investment decisions, financing decisions and dividend decisions within the scope of finance function.

AIMS OF FINANCE FUNCTION

- The main aim of finance function is to assess the financial needs of an enterprise and then finding out suitable sources for raising them.
- The funds should be properly utilized in such a way that maximum benefit is derived from them.
- The planning and control of finance function aim at increasing profitability of the concern. The finance function should be so

planned that the concern neither suffers from inadequacy of funds not wastes more funds than required.

- It also aims at maximizing the value of the firm. Even though profitability influences a firm's value but it is not all.

Besides profits, the type of sources used for raising funds, the cost of funds, the condition of money market, the demand for products are some other considerations which also influence a firm's value.

RELATIONSHIP OF FINANCE WITH OTHER DISCIPLINES

Today finance occupies an important place as an input of every economic activity. In the traditional theory, finance was supposed to take the form of either circulating capital or fixed capital, and the concepts of finance as distinct from capital was not well conceived and developed. In modern theory, finance is different from capital. While the former relates to money and near-money assets which have a separate identity and marginal satisfaction to the holder, capital relates to the physical plant and capital goods such as machinery etc. which are capable of production. The field of finance is closely allied to the field of Economics, Financial Accounting, Responsibility, Transactional Accounting, Management Accounting, Corporate Finance, Cost Accounting, Cost Accounting, Business Finance, Accounting and Human Resource Accounting etc.

CHALLENGES OF BEING GLOBAL PLAYERS

In the aftermath of the crisis, there is a striking dichotomy between advanced and emerging economies in the short-term risks and policy challenges that they face. Among advanced economies, the major concern is weak growth and impending fiscal pressures. Conventional monetary policy has reached its limits and debt has risen to such high levels that it constrains the scope of fiscal policy. In emerging economies, by contrast, growth has rebounded sharply, which means they face rising inflation, surges of capital inflows, and pressures of rapid currency appreciation.

The global financial crisis presents a unique opportunity for emerging markets to mature in another dimension – taking on more responsibility for global economic and financial strength. While emerging markets, such as China and India, remain relatively poor in per capita terms, their sheer overall size makes it important for them to consider the regional and global spillovers of their policy choices.

This will require them to play an active role in guiding international debates on key policy issues, including strengthening global economic governance. It is in their own long-term interest to take the lead on global challenges, from dismantling trade barriers to tackling climate change, rather than focusing narrowly on their own perceived short-term interests.

RECENT CHANGES IN GLOBAL FINANCIAL MARKETS

In 1960 there is a slow growth in changes in the financial markets. The decade of eighties witnessed unprecedented changes in financial markets around the world. In those periods with the emergence of Euro markets which were a sort of parallel money markets which free from any regulation. During 1970's many innovative funding techniques grew in the markets. The special feature of the changes during the eighties was integration. The financial system has grown much faster than real output since the late seventies. Banks in major industrialized countries have increased their presence in each other's countries considerably. Major national markets are tapped by non-resident borrowers. Non-resident investment banks are allowed access to national bond and stock markets. Today wide range of choice of markets is available both for borrower and the investors. In addition to that there has been a strong trend towards functional unification across the various types of financial institutions with individual markets. The traditional segmentation between commercial banking, investment banking, and consumer finance is fast disappearing.

Universal banking provides worldwide financial services including traditional commercial services.

Dynamic Forces: Liberalisation with cross border financial transactions and Deregulation within the financial systems of the major industrial nations.

Liberalisation measure was the lifting of exchange control between the countries. The markets in US, Germany, Switzerland, and Holland were already free from most of the exchange controls. Domestic financial markets were opened to foreign and domestic borrowers were allowed access to foreign financial markets. Investors could maximize their portfolios taking into consideration of their estimated returns, risks and their own risk preferences. Deregulations involved action on two fronts. First regulation was eliminating the segmentation of the markets for financial services with specialized institutions catering exclusively to a particular segment and measures designed to abolish the fixed brokerage fees, breaking up bank cartels and so forth.

Another was permitting foreign financial institutions to enter the national markets and compete with domestic financial institutions by way of rendering financial services to the investors and the borrowers. Liberalisation and deregulation plays a vital role in increasing the competition within the financial service industry. There is a tremendous changes and innovation has accelerated during the last fifteen years.

The major motive behind innovations like options, swaps, futures and their innumerable permutations and combinations comes both from the demand and supply side. In 1973 there is a new factor introduced called floating exchange rates in international finance. During eighties there is an exchange rate volatility and the substantially higher interest rate volatility led to demand for newer kinds of risk management products which would enable the investors and borrowers to minimize if not eliminate the risk. Developing countries like India have started trading derivative instruments and had made possible by the tremendous advances in telecommunications and computing technology. Global financial markets witnessed turbulent conditions during 2014-15 as the crisis in the US sub-prime mortgage market deepened and spilled over to markets for other assets. Concerns about slowdown in the real economy propelled a broad-based re-pricing of growth risk by the end of the year. In the wake of the persistent uncertainties about the US sub-prime mortgage market and other credit markets exposures, liquidity demand surged. To ease liquidity conditions, major central banks continued to inject liquidity in a more collaborative manner.

Elevated inflationary pressures in many economies reflected historical peaks in crude oil prices. Share prices in advanced economies fell, while those in emerging market economies (EMEs), which had shown some resilience, declined sharply from January 2008. Long-term government bond yields in advanced economies softened, reflecting flight to safety by investors and easing of monetary policy in the US. In the currency markets, the US dollar depreciated against major currencies. Pressure on credit market persists in the wake of recession in many economies and subdued corporate performance, which has given rise to the expectation of possible increase in defaults. During the fourth quarter of 2008-09, the equity valuations generally remained low on account of concerns stemming from the weak financial and economic outlook.

Money Markets

The policies initiated by central banks and the guarantees offered by governments assuaged to an extent the funding pressures that were evident in the international financial markets during September and October 2014.

The spreads between Libor and overnight index swaps (OIS) have been gradually narrowing. In the UK, however, bank funding markets came under renewed pressure. The Sterling Libor-OIS spreads slightly widened and the inter-bank term lending remained subdued during late January and February 2009.

Under the arrangement, the ICE Trust would work towards reducing the risk associated with the trading and settlement of CDS transactions by assuming counterparty credit risk and enforcing participation standards and margin requirements. As spreads continued to be affected by financial market concerns, in January 2015, the authorities in the UK announced a further broad-based package for rescue of the financial institutions in the country. Additional support measures were announced by other European countries as well.

For instance, the US government's announcement in November 2014 and the subsequent initiation of a programme for purchase of up to US$ 100 billion of direct obligations of housing related government-sponsored enterprises and up to US$ 500 billion of mortgage backed securities (MBS) backed by Fannie Mae, Freddie Mac, and Ginnie Mae has helped in reducing spreads on agency debt and the conditions for high-quality borrowers in the primary residential mortgage market recovered to an extent.

Short-term Interest Rates

The easing of short-term interest rates in advanced economies persisted in the fourth quarter of 2014-15, as policy rates continued to be cut with inflation concerns disappearing and the recession in most advanced economies turning out to be deeper and more protracted than was earlier estimated. The US federal funds rate remains in the range of 0.0-0.25 per cent set in mid-December 2014. The Bank of England affected a 50 basis point cut in policy rates-in each of the three months of the fourth quarter of 2014-15. As of March 5, 2015, the official bank rate was at an all-time low of 0.5 per cent. The ECB has reduced its policy rates by 300 basis points since October 2014, the rate for main refinancing operations thus stands reduced to 1.25 per cent. The softening of interest rates was broad-based and across the spectrum, as emerging economies also saw frequent cuts in policy rates and liquidity injections by the authorities.

Government Bond Yields

There has been much volatility in the government bond yields because even as most advanced economies are facing a recession, concerns have mounted over the increased borrowing requirements of the governments. This contributed to the increase in the 10-year government bond yields in some advanced countries during the fourth quarter of 2014-15.

The 10-year government bond yield in the US increased by 72 basis points between December 29, 2014 and April 8, 2015. During the same period, yields on 10-year government papers increased by 34 basis points in the Euro area, 20 basis points in Japan and 15 basis points in the UK.

Foreign Exchange Markets

The international financial markets witnessed extreme dislocations in the period immediately following the collapse of the Lehman Brothers. Due to the unwinding of carry trade positions and low risk appetite, the yen appreciated against most other currencies, including the US dollar during 2014-15. However, beginning mid- February 2015 up to mid-April 2015, the yen has generally depreciated against the US dollar. Although, the foreign exchange swap spreads have begun to soften, the foreign exchange markets remained strained for most countries during the first quarter of 2015. The Bank of Mexico had to directly intervene in the foreign-exchange markets for the first time in more than a decade in February 2015 because of the severity of the impact of the crisis on its currency trading. Four eastern European central banks (of Romania, Hungary, Poland and the Czech Republic) announced that they would make co-ordinate effort to bolster their currencies as the sharp depreciations experienced by their respective currencies were not in line with the economic fundamentals. Amongst Asian currencies also, the US dollar appreciated against Korean won, Thai baht, Malaysian ringgit, Indonesian rupiah and Indian rupee but depreciated against Chinese yuan. As on April 14, 2015, however, the US dollar depreciated against most major currencies, except the euro and the Japanese yen, over end-March 2015 levels.

Equity Markets

The year 2014-15 continued to be a dismal year for the stock markets. As a reflection of the economic and financial market outlook, the year was characterized by depressed equity valuations. Equity price indices in most advanced economies were relatively flat during July and August 2014, but caught on the downward spiral subsequently, which continued into the first two months of 2015. Consequently, price/earnings ratios in most markets across the world followed a downward trend. They remained at or close to all-time low levels for most regions during the fourth quarter of 2014-15. Though the decline in equity valuations was broad-based across all sectors, financial institutions, particularly in Japan, were the worst sufferers. The volatility in the markets in the fourth quarter was compounded by the lack of detailed information about government rescue packages.

The equity markets saw a slight recovery in most countries/regions since mid-March 2015, helped further by the US government announcing the details of the public-private investment programme aimed at repairing balance sheets of financial institutions.

Derivative Markets

In the second half of 2014, the financial crisis resulted in a decline in the total notional amounts outstanding of over-the-counter (OTC) derivatives to $592 trillion at end-year, an indication of reduced market activity. Foreign exchange and interest rate derivatives markets both recorded their first significant contractions. Against a background of severely strained credit markets and efforts to improve multilateral netting of offsetting contracts, credit default swap (CDS) markets continued to contract, with outstanding amounts decreasing by more than 25%.

Facing significant price drops, outstanding commodity and equity derivatives also declined notably. Despite the drop in amounts outstanding, significant price movements resulted in notably higher gross market values, which increased to $34 trillion at end-2014. Gross market values, which measure the cost of replacing all existing contracts, can be used to capture derivatives related exposures. The gross market value of interest rate swaps, by far the largest market segment, reached $17 trillion. The most significant increase took place in the US dollar swap market, where the gross market value nearly tripled.

Notional amounts outstanding of foreign exchange derivatives decreased to $50 trillion, while their gross market value rose to $4 trillion. The dollar and the euro remained the most important vehicle currencies, followed by the yen and the pound sterling. Amounts outstanding of commodity derivatives fell by two thirds to $4.4 trillion. The continued declines in commodity prices during the second half of 2014 also had a substance impact on the gross market value of commodity contracts, which fell to $1.0 trillion.

Exchange-traded Derivatives

The first quarter of 2015 saw a continued but limited decline of activity on the international derivatives exchanges. Total turnover based on notional amounts decreased further, to $367 trillion from $380 trillion in the previous quarter. Consistent with a gradual return of risk appetite, however, trading activity on a monthly basis did start to increase towards the end of the quarter. Overall turnover in interest rate derivatives remained largely unchanged at $324 trillion compared to the previous quarter. The moderate change in overall turnover nonetheless; reflects differences across regions, with turnover in North America declining notably relative to the previous quarter, while European turnover increased.

In contrast to interest derivatives markets, equity derivatives turnover fell for all contract types and all major currencies, including the euro.

Against a background of negative economic growth and Uncertainty about growth recovery, activity in equity index derivatives declined significantly to $38 trillion. Foreign change derivatives turnover also continued to slide. The decrease in activity among the main currencies was most pronounced for the yen and US dollar segments. Turnover in Australian and New Zealand dollar futures, possibly driven by renewed interest in FX carry trades, increased substantially relative to the previous quarter.

CONCLUSION

The global financial crisis presents a unique opportunity for emerging markets to grown-up in another dimension – taking on more responsibility for global economic and financial strength. While emerging markets, such as China and India, remain relatively poor in per capita terms, their sheer overall size makes it important for them to consider the regional and global spillovers of their policy choices.

REVIEW QUESTIONS

1. Define corporate finance.
2. Discuss various approaches to finance function.
3. What do you mean by business finance?
4. Give a short note on organisation of finance function.
5. What is international finance?
6. Explain the recent changes in global financial markets.
7. Describe the emerging challenges at global level in finance.
8. State the importance of corporation finance.
9. Mention the aims of finance function.
10. Discuss the dynamic forces of international financial markets.

UNIT I - (B)

FINANCIAL MANAGEMENT: AN OVERVIEW

Objectives

- To understand the meaning and importance of financial management.
- To know the goals and objectives of financial management.
- To get an idea of financial management cycle and process.
- To understand the objectives of the firm and the impact of risk.
- To examine the nature and measurement of exposure and risk.

INTRODUCTION

In general, finance is defined as the provision of money at the time it is required. Every enterprise, whether big, medium or small, needs finance to carry on its operations and to achieve its targets. This is because in the modern money-oriented economy, finance is one of the basic foundations of all kinds of economic activities. In fact, finance is so indispensable today that it is rightly said to be the lifeblood of an enterprise. Without adequate finance, no enterprise can possibly accomplish its objectives. Hence, efficient management of every business enterprise is closely linked with efficient management of its finances.

MEANING OF BUSINESS FINANCE

Finance function may be defined as the procurement of funds and their effective utilization. "Business finance is that business activity which is concerned with the acquisition and conservation of capital funds in meeting financial needs and overall objectives of a business enterprise."

The subject of finance has been traditionally classified into two classes: (i) Pubic finance; and (ii) Private finance. Public finance deals with the requirements, receipts and disbursement of funds in the government institutions like states, local self-government and central government. Private finance is concerned with requirements, receipts and disbursement of funds in case of as individual, a profit seeking business organization and a non- profit organization. Thus, private finance can be classified into: personal finance, business finance and finance of non-profit organization. Personal finance deals with the analysis of principles and practices involved in managing one's own daily need of funds. The study of principles, practices, procedures, and problem concerning financial management of profit making organization engaged in the field of industry, trade, and commerce is undertaken under the discipline of business finance.

The finance of non-profit organization is concerned with the practices, procedures and problems involved in financial management of charitable, religious, educational, social and other similar organization.

MEANING OF FINANCIAL MANAGEMENT

Financial Management is a related aspect of finance function. In the present business administration financial management is an important branch. This requires great caution and wisdom on the part of management. It includes adoption of general management principles for financial implementation. The following may be said as the related aspects of financial management raising of funds, using of these funds profitably, planning of future activities, controlling of present implementations and future developments with the help of financial accounting, cost accounting, budgeting and statistics. It acts as guidance where more opportunities for investment are available. Financial management is useful as a tool for allotment of resources to various projects depending on their importance and repayment capacity.

DEFINITION

James Van Morne defines Financial Management as "Planning is an inextricable dimension of financial management. The term financial management connotes that funds flows are directed according to some plan".

IMPORTANCE OF FINANCIAL MANAGEMENT IN BUSINESS

Financial reports can help aid in making important future decisions. The following are the importance of financial management in business:

- **Accounting and Financial Reports -** It is very important to keep track of company's origin and its past history, particularly an account of the money that has been spent. The earnings from specific services, product lines and sales staff - all will come into clear focus once a person have gone through the financial reports. This will help to manage the expenses and marketing accordingly.
- **Financial Ratios -** These ratios gives you all the information that need to know about the business. Moreover, it is very easy to calculate. This way one can compare the company's standard with others. Financial ratios are not essential but it can point out the faults.
- **Research -** A little bit of research on the expenses managed by other companies will help to manage better and bottom line could increase. A person might need to grasp the procedures, alter operations, streamline competencies or shake up the staff for a better performance. Analyzing the financial ratios will guide towards the area that are most weak in so that one can develop a strategy to enhance the efficiency of business.
- **Financial Statements -** All the patterns in the expenses are exposed with the help of Financial Statements. Sales Trends

comes into attention whether impacted by the season, changing consumer taste or other factors. This helps to manage the inventories better, staff levels and sales promotions. Variable expenses and unusual or unauthorized expenses can be monitored with the help of Financial Statements. This will aid in occasions of theft, embezzlement or other questionable activity before the stakes become too high.

- Economic highs and lows affect all companies and these periods of change is a test for all. Some stumble, some even fail and there are some who stand unscathed. But the economic growth of all companies is affected collectively. Sometimes the growth is totally unplanned and the expansion occurs due to some external factor which can range from landing a large account to just finding a great deal on a second location space. Always remember that without proper and concrete planning, no business can survive.
- Financial planning and management is not only for reviewing the financial statements but also to be aware of the expenses and then manage the same in such a way that they don't go waste.

FUNCTIONS OF FINANCIAL MANAGEMENT

- **Estimation of capital requirements:** A finance manager has to make estimation with regards to capital requirements of the company. This will depend upon expected costs and profits and future programmes and policies of a concern. Estimations have to be made in an adequate manner which increases earning capacity of enterprise.
- **Determination of capital composition:** Once the estimation has been made, the capital structure have to be decided. This involves short- term and long- term debt equity analysis. This will depend upon the proportion of equity capital a company is possessing and additional funds which have to be raised from outside parties.

- **Choice of sources of funds:** For additional funds to be procured, a company has many choices like-
  - Issue of shares and debentures
  - Loans to be taken from banks and financial institutions
  - Public deposits to be drawn like in form of bonds.

Choice of factor will depend on relative merits and demerits of each source and period of financing.

- **Investment of funds:** The finance manager has to decide to allocate funds into profitable ventures so that there is safety on investment and regular returns is possible.
- **Disposal of surplus:** The net profits decisions have to be made by the finance manager. This can be done in two ways:
  - Dividend declaration - It includes identifying the rate of dividends and other benefits like bonus.
  - Retained profits - The volume has to be decided which will depend upon expansion, innovational, diversification plans of the company.
- **Management of cash:** Finance manager has to make decisions with regards to cash management. Cash is required for many purposes like payment of wages and salaries, payment of electricity and water bills, payment to creditors, meeting current liabilities, maintenance of enough stock, purchase of raw materials, etc.
- **Financial controls:** The finance manager has not only to plan, procure and utilize the funds but he also has to exercise control over finances. This can be done through many techniques like ratio analysis, financial forecasting, cost and profit control, etc.
- **Financial Decision:** Financing decision of an enterprise includes decision for short term capital and long term capital requirement. Financing decision include decision upon the needs and source of new outside financing and caring on negotiations for new outside financing. Financing means procurement of finance at most convenient and economic rates.

- **Investment Decisions**: Funds acquired from different sources are to be invested in profitable projects so that maximum profit can be earned and the value of the wealth becomes maximum. Long term funds are invested for the acquisition of fixed assets and current assets also.

The investment of funds in different projects should be made carefully so that the funds can be utilized in the maximum possible ways.

Capital budgeting techniques is used or making investment decisions. Investment decision considers the management of current assets such as cash, marketable securities, etc. Capital budgeting which includes identification, selection, implementation of capital projects, etc. and management of mergers, reorganization, disinvestment, etc.

- **Dividend Decisions:** The financial managers take dividend decisions. For taking decision in respect of dividend, the factor to be consider include- availability of cash, tax position of the shareholders, trend of earnings, requirements of funds for the future, etc. Dividend decision considers the allocation of net profit. Dividend decisions are taken considering the overall liquidity and profitability of the enterprise. Dividend decisions are taken taking into account the disposition of profits between dividend and retained earnings.

OBJECTIVES OF FINANCIAL MANAGEMENT

Financial management is concerned with procurement and use of funds. Its main aim is to use business funds in such a way that the firm's value/ earnings are maximized. There are various alternatives available for using business funds. The pros and cons of various decisions have to look into before making a final selection. The decisions will have to take into consideration the commercial strategy. The main objective of the business is to maximize the owner's economic welfare. The objective can achieve by:

1. Profit maximization, and
2. Wealth maximization

PROFIT MAXIMIZATION

The main objective of business is profit maximization. It cannot be the sole objective of a company as there is a direct/relationship between risk and profit. If profit maximization is the only goal, then risk factor is ignored. Sometimes, higher the risk, higher is the possibility of profits. Hence, risk has to be balanced with the objective of profit maximization. In addition, a firm has to take into account the social considerations, and normal obligations to the interests of workers, consumers, society, government, as well as ethical trade practices. However, as profit maximization ignores risk and uncertainty and timing of returns, a firm can't solely depend on the objective. Traditionally organizations were primarily focused on profit maximization.

Profit maximization is short term strategy and focuses on making profits in the short term, which may result in taking courses of action that could be harmful in the long term.

A corporation's management is generally interested in profit maximization and strives to reach projected monthly, quarterly, and annual revenue. The goal of profit maximization is pursued by management because of the pressure put on them by stakeholders to achieve profit goals set. Management may also be concerned with profit maximization as this directly influences their remuneration, bonuses, and benefits.

The following arguments are advanced in favour of profit maximization as the objective of business:

1. When profit-earning is the aim of business then profit maximization should be the obvious objective.
2. Profitability is a barometer for measuring efficiency and economic prosperity of a business enterprise, thus, profit maximization is justified on the grounds of rationality.

3. Economic and business conditions do not remain same at all the time. There may be adverse business conditions like recession severe competition etc.
4. Profits are the main sources of finance for the growth of a business. So, a business should aim at maximization of profit for enabling its growth and development.
5. Profitability is essential for fulfilling social goals also. A firm by pursuing the objective of profit maximization also maximizes social-economic welfare.

WEALTH MAXIMISATION

Wealth maximization objective refers to the shareholders' wealth as reflected by the market price of their shares in the share market. Hence, maximization of wealth means maximization of the market price of the equity shares of the company. Wealth maximization takes on a different, modern approach where the organization will focus on maximizing wealth in the long run as opposed to making short term gains. Wealth maximization focuses on cash flows that a firm receives, instead of looking at profits made during the short term. Wealth maximization is preferred by most shareholders who are willing to sacrifice short term profits in order to make longer term returns. Since shareholders are the owners of the firm, they will focus more on the longer term wealth created by the firm and will like to see greater reinvestment made presently to achieve greater value in the future.

Wealth maximization goal is achieved when the market value of shares increases; this is one major reason why shareholders focus on wealth maximization.

As market value of shares increase (as a result of the wealth maximization goal), shareholders can sell their shares at a higher price, thereby making larger capital gains. Hence, the objective of a firm is to maximize its wealth and the value of its shares. According to Van Horne, value is represented by the market price of the company's common stock. The market price of a firm's stock takes into account present and prospective future earnings per share (EPS), the timing and risk of these earnings, the dividend policy of the firm and many other factors that bear upon the market price of the stock.

Financial theory that wealth maximization is the single substitute for stockholder's utility. When the firm maximizes the stockholder's wealth, the individual stockholder can use this wealth to maximize his individual utility. It means that by maximizing stockholder's wealth the firm is operating consistently towards maximizing stockholder's utility.

Stockholder's current wealth in firm = (Number of shares owned) *(current stock price per share)

$$W_o = Np_o$$

A stockholder's current in the firm is product of the number of shares owned, multiplied with the current stock price per share. Given the number of share that the stockholder owns, the higher the stock price per share the greater will be the stockholder's wealth. Thus, a firm should aim at maximizing its current stock price. The objective helps in increasing the value of shares in the market. The share's market price serves as a performance index or report card of its progress. It also indicates how well management is doing on behalf of the shareholder. To be concluded that:

refers to refers to
Maximum Utility -------------------->Maximum stock holder's wealth------------>Maximum current stock price per share

However, the maximization of the market price of the shares should be in the long run. The long run implies a period which is long enough to reflect the normal market value of the shares irrespective of short-term fluctuations.

PROFIT MAXIMIZATION vs WEALTH MAXIMIZATION

Financial management is essential for any organization that seeks to manage their finances in an orderly manner. Wealth maximization and profit maximization are two important goals of financial management and are quite different to each other.

Profit maximization looks at the shorter term and focuses on making larger profits in the short term, which could be at the expense of long term benefits. Wealth maximization, on the other hand, focuses on the long term and strives at long term value creation. As an example, a company has the option to invest $200,000 in a new technology to develop its product offering. If the investment is made now, the current profit levels of $400,000 will be reduced to $200,000. However, once the investment is made, the product that is currently sold for $10 can be sold for $15 in the future, which will then result in the market value of shares increasing by 10%. The bargain here is whether the $200,000 investment should be sacrificed for short term profits, or whether the investment should be made so that the product can be sold at a higher price, which will then increase market value, creating long term wealth.

Total profits are not as important as earnings per share. Even maximization of earnings per share is not enough because it does not specify the timing or duration of expected returns. Further, it does not consider the risk of uncertainty of the future earnings. Hence, wealth maximization is appropriate and it is possible by maximizing the market price per share. Maximization of wealth of the firm implies maximization of value of owner's share capital reflected in the market price of shares. Therefore, the operative objective of financial management implies maximization of market price of shares.

GOALS OF FINANCIAL MANAGEMENT

The goals of financial management should be useful to the firm's proprietors, managers, employees and consumers. For this purpose the only way is maximization of firm's value. **The following aspects have place in maximizing firm's value:**

- **Rise in profits:** If the firm wants to maximize its value, it should' increase its profits and revenues. For this purpose increase of sales volume or other activities can be taken up. It is the general feature of any firm to increase profits by proper utilization of all opportunities and plans. Theoretically, firm gets maximum profits if it is under equilibrium. At that stage the average cost is minimal and the marginal cost and the marginal revenues are equal.
- **Reduction in cost:** Capital and equity funds are utilized for production. So all types of steps should be taken to reduce firm's cost of capital.
- **Sources of funds:** It should be decided by keeping in view the value of the firm to collect funds through issue of shares or debentures.
- **Reduce risks:** There won't be profits without risk. But for this reason if more risk is taken, it may become danger to the existence of the firm. Hence risk should be reduced to minimum level.
- **Long run value:** It should be the feature of financial management to increase the long-run value of the firm. To earn more profits in short time, some firms may do the activities like releasing of low quality goods, neglecting the interests of consumers and employees.

SCOPE OF FINANCIAL MANAGEMENT

The main objective of financial management is to arrange sufficient finances for meeting short term and long term needs. A financial manager will have to concentrate on the following areas of finance function:

- **Estimating Financial Requirements**
  The first task of financial manager is to estimate short term and long-term financial requirements of his business. For this purpose, he will prepare a financial plan for present as well as

for future. The amount required for purchasing fixed assets as well as for working capital will have to be ascertained.

- **Deciding Capital Structure**
  The capital structure refers to the kind and proportion of different securities for raising funds. After deciding about the quantum of funds required, it should be decided which type of securities should be raised. It may be wise to finance fixed assets through long-term debts and current assets through short-term debts.
- **Selecting a Source of Finance**
  After preparing capital structure, an appropriate source of finance is selected. Various sources from which finance may be raised include: share capital, debentures, financial institutions, commercial banks, public deposits etc. If finance is needed for short period then banks, public deposits and financial institutions may be appropriate. On the other hand, if long-term finance is required then, share capital, and debentures may be useful.
- **Selecting a pattern of Investment**
  When funds have been procured then a decision about investment pattern is to be taken. The selection of an investment pattern is related to the use of funds. A decision will have to be taken as to which asset is to be purchased. The funds will have to be spent first on fixed assets and then an appropriate portion will be retained for working capital.
- **Proper cash Management**
  Cash management is an important task of finance manager. He has to assess various cash needs at different times and then make arrangements for arranging cash. The cash management should be such that neither there is a shortage of it and nor it is idle. Any shortage of cash will damage the credit worthiness of the enterprise.
- **Implementing Financial Controls**
  An efficient system of financial management necessitates the use of various control devises. Financial control devises

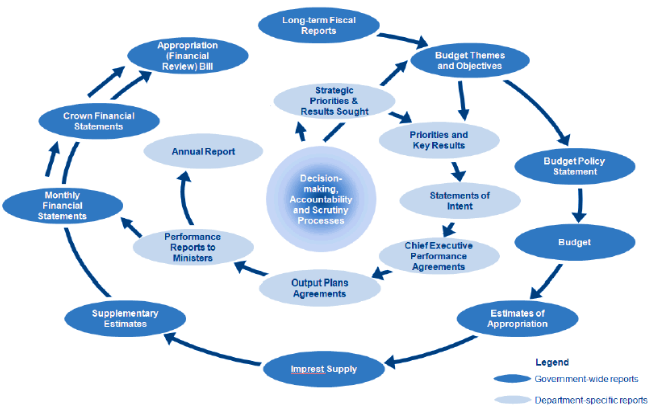
generally used are budgetary control, break even analysis; cost control, ratio analysis etc. The use of various techniques by the finance manager will help him in evaluating the performance in various areas and take corrective measures whenever needed.

- **Proper use of Surplus**

  The utilization of profit or surplus is also an important factor in financial management. A judicious use of surpluses is essential for expansion and diversification plan and also in protecting the interest of shareholders. The finance manager should consider the following factors before declaring the dividend;

  - Trend of earnings of the enterprise.
  - Expected earnings in future.
  - Market value of shares.
  - Shareholders interest.
  - Needs of fund for expansion etc.

FINANCIAL MANAGEMENT CYCLE



The financial management cycle includes the long-term fiscal reports, appropriation, financial statements, supplementary estimates, imprest supply, and estimates of appropriation, budget, budget policy settlement and budget objectives.

RISK

Risk is the existence of volatility in the occurrence of an expected incident is called risk. Higher the unpredictability greater is the risk. Risk may or may not involve money. All investments involve risk on one type or the other. Risk is associated with the possibility of not realizing return or realizing less return expected. The degree of risk varies on the basis of the features of the assets, investment instruments, the mode of investment, the issuer of securities, etc. Even the so called risk less assets like bank deposits carries some element of risk. The objective of risk management is not elimination of risk but proper assessment of the risk and deciding whether it is worth taking or not.

Causes of Risks: A number of factors which can cause risk in the investment arena are given below:

1. Wrong method of investment 2. Wrong timing of investment 3. Wrong quantity of investment 4. Interest rate risk 5. Nature of investment instruments 6. Nature of industry in which the company is operating 7.Creditworthiness of the issuer 8. Maturity period or length of investment 9. Terms of lending 10. National and International factors 11. Natural calamities etc.

TYPES OF RISK

Risk can be classified in to two types. (i) Systematic risk and (ii) Unsystematic risk

(i) **Systematic Risk:** Systematic risk refers to that portion of variation in return caused by factors that affect the price of all securities. The effect in systematic return causes the prices of all individual securities to move in the same direction. It is generally due to the response to economic, social and political changes. It arises due to the following factors:

  (a) **Market Price:** Variations in prices sparked off due to real social, political and economic events is referred to as market risk. This risk raises out of changes in demand and supply pressures in the market following the changing flow of news or expectations.

(b) **Interest Rate Risk:** Normally price of securities tend to move inversely with changes in the rate of interest. The market activity and investor perceptions are influenced by the changes in interest rates which in turn depend on nature of instruments.

(c) **Purchasing power risk:** uncertainty of purchasing power is referred to as risk due to inflation. It arouses optimism since the entire prices group and that lead to higher incomes. Purchasing power risk is the uncertainty of the purchasing power of the amounts to be received in future due to both inflation and deflation. It is inherent in all investments and is uncontrollable.

(ii) **Unsystematic Risk:** Unsystematic risk refers to that portion of the risk which is caused due to factors unique or related to a firm or industry. This risk is a company specific risk and can be controlled if proper measures are taken. This risk is caused by factors like labour unrest, management policies, shortage of power, recession in a particular industry, consumer preferences etc. It is further divided into:

(a) **Business Risk:** Business risk can be internal as well as external. Internal risk is caused due to improper product mix, non-availability of raw materials, incompetence to face competition, absence of strategic management etc. Internal risk is associated with the efficiency with which a firm conducts its operations within the broader environment thrust upon it.

(b) **Financial Risk:** It is associated with the capital structure of a company. A company with no debt financing has no financial risk. This risk depends on the leverage of the firm’s capital structure. Proper financial planning and other financial adjustments can be used to correct this risk and as such it is controllable.

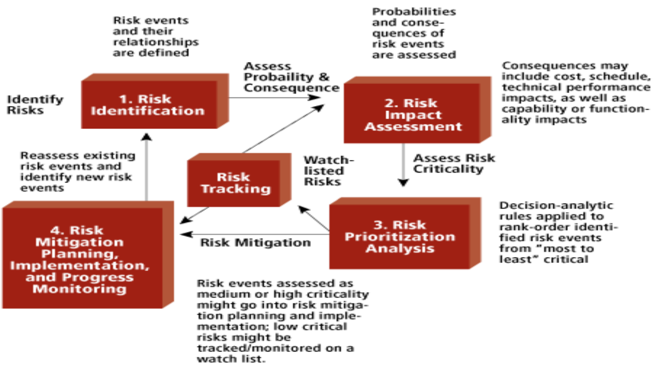
(c) **Credit/Default risk:** This risk deals with the probability of meeting with a default. It is primarily the probability that a buyer will default. The chances that the borrower will not pay up can stem from a variety of factors.

Preparing a risk management plan and business impact analysis

The process of identifying risks, assessing risks and developing strategies to manage risks is known as risk management. A risk management plan and a business impact analysis are important parts of the business continuity plan.

By understanding potential risks in the business and finding ways to minimise their impacts, will help the business recover quickly if an incident occurs. It's important to allocate some time, budget and resources for preparing a risk management plan and a business impact analysis. This will help to meet the legal obligations for providing a safe workplace and can reduce the likelihood of an incident negatively impacting on the business.

IMPACT OF RISKS



ANALYSING THE LEVEL OF RISK

To analyse risks, need to work out the likelihood of it happening (frequency or probability) and the consequences it would have (the impact) of the risks that have identified. This is referred to as the level of risk, and can be calculated using this formula:

$$\text{Level of risk} = \text{consequence} * \text{likelihood}$$

Level of risk is often described as low, medium, high or very high. It should be analysed in relation to currently doing to control it. Keep in mind that control measures decrease the level of risk, but do not always eliminate it.

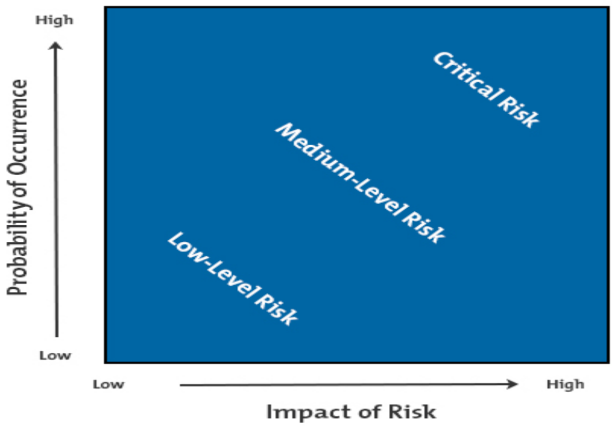
EVALUATING RISKS

Once the level of risk established, then it is in need to create a rating table for evaluating the risk. Evaluating a risk means making a decision about its severity and ways to manage it.

For example, A person may decide the likelihood of a fire is 'unlikely' (a score of 2) but the consequences are 'severe' (a score of 4). Using the tables and formula above, a fire therefore has a risk rating of 8 (i.e. 2 x 4 = 8).

Risk rating table example

Risk rating	Description	Action
12-16	Severe	Needs immediate corrective action
8-12	High	Needs corrective action within 1 month
4-8	Moderate	Needs corrective action within 3 months
1-4	Low	Does not currently require corrective action



Risk evaluation should consider:

- the importance of the activity in the business
- the amount of control over the risk
- potential losses in the business
- Any benefits or opportunities presented by the risk.

Once the risk have identified, analysed and evaluated it is to be arranged in an order of priority. Then it can be decided which methods to be used to treat unacceptable.

NATURE OF RISK

- The company will go under—bankruptcy risk.
- Won't be able to trade the security—liquidity risk.
- The company does not go under, but earnings disappoint—earnings risk.
- Nothing at all befalls the company or its profits, except that its stock is savaged by animal market spirits—speculative risk.

The first two pertain to both stocks and bonds; with the low recovery rates inherent in modern corporate bankruptcies, the only difference is that you are out of pocket sooner with stocks than with bonds. The last two pertain mainly to stocks. In terms of equity selection, liquidity risk can be dismissed for all but the smallest stocks.

Bankruptcy Risk

In a rational world, distressed companies should have higher returns to compensate for their obviously greater risk. And the classical three-factor model, which uses price/book ratio (P/B) as a measure of distress, seems to bear this out. Not unexpectedly, companies with high distress had high size and value loadings. It would be reasonable to assume then, since these companies were highly distressed and had high betas for known risk factors, that a portfolio of their stocks would also have high returns. High distress correlated negatively with return, with the spread between the highest- and lowest-risk portfolios being on the order of about 20% per year.

Earnings Risk

Outright bankruptcy is bad enough and frequent enough: Over the lifetime of the average investor, most companies will go under. The only hope of profit is to get one's dividends out before it happens. Worse, however, is that all companies eventually stop growing, and when they do, their stock prices usually get hurt.

In a famous study by Fuller, Huberts, and Levinson (*Journal of Portfolio Management*, Winter 1993), stocks were sorted by price-to-earnings ratio (PE). The most expensive quintile, as expected, demonstrated spectacular prior earnings growth.

Speculative Risk

Berry and Dreman, in "Overreaction, Under reaction, and the Low P/E Effect,"(*Financial Analysts Journal*, July/August 1995), demonstrated something that even the most casual market observers are aware of: when glamour stocks have negative earnings surprises, they are taken out and shot, but when value stocks disappoint, the damage is much less. And conversely, when glamour stocks have positive surprises, they do tolerably well, but when a dog surprises, it generally skyrockets. This fits all too well with what one sees in the financial media: an overriding obsession with earnings, but little concern about balance-sheet strength until just before *rigor mortis* sets in. No wonder growth is overpriced and company safety underpriced.

OBJECTIVES OF THE FIRM AND THE IMPACT OF RISK

The organisation is exposed to various risks, which are either insured or uninsured, depending on the specific objectives being performed while fulfilling the Mission of the organisation. The goal is to identify the risks and determine if they may be avoided, reduced, spread, transferred or prevented. Having recognized the need, and taken the responsibility to preserve the organisation resources, the following guidelines assist in managing risks:

- Achieve and maintain a reduced cost of risk (both insurance and self-insurance) without placing the organisation in a position of risk exposure that could have a significant impact on its financial security and its Mission.
- Evaluate and assess all risks of loss and need for insurance related to the specific performance objective.
- Modify or eliminate identifiable conditions and practices which may cause loss whenever possible.
- Purchased insurance coverage using the following guidelines:

While a competitive atmosphere is desired, continuity of relationship with insurance sources is advantageous and will be maintained unless there is a significant reason for making a change.

THE NATURE AND MEASUREMENT OF EXPOSURE AND RISK

Measurement

When attempting to measure risk, the enterprise should first look at the most likely time frame and resulting exposure position. This time frame may be specific or variable:

- Specific, where the period of exposure is capable of precise identification and is not at the discretion of the enterprise.
- Variable, where the period of exposure extends over a long period of time or the dates of settlement are, to some extent at least, at the discretion of the enterprise.

The timing of cash flows, and, therefore, the different time value of transactions, must always be clearly identified. Moving certain settlement dates could reduce the net exposure. In measuring risk, the various currencies must be examined separately, and not merely aggregated. However, interrelationships between currencies must be considered in evaluating the overall risk of the enterprise.

Since risks arise from many different sources and most enterprises operate within the constraints of scarce resources, it is necessary to determine the importance of the various risks being faced, to rank them as regards their impact on the enterprise and to identify the tolerance of the enterprise to any range of exchange rate movements. Total exchange risk can, finally, be expressed in aggregation together with supporting sensitivity analyses and probability ratings.

EXPOSURE

Foreign currency exposure is the extent to which the future cash flows of an enterprise, arising from domestic and foreign currency denominated transactions involving assets and liabilities, and generating revenues and expenses are susceptible to variations in foreign currency exchange rates. It involves the identification of existing and/or potential currency relationships which arise from the activities of an enterprise, including hedging and other risk management activities.

TYPES OF EXPOSURE

Translation Exposure

Translation exposure is also referred to as accounting exposure or balance sheet exposure. The restatement of foreign currency financial statements in terms of a reporting currency is termed translation.

The exposure arises from the periodic need to report consolidated worldwide operations of a group in one reporting currency and to give some indication of the financial position of that group at those times in that currency. Translation exposure is measured at the time of translating foreign financial statements for reporting purposes and indicates or exposes the possibility that the foreign currency denominated financial statement elements can change and give rise to further translation gains or losses, depending on the movement that takes place in the currencies concerned after the reporting date. This type of exposure does not, therefore, require management action unless there are particular covenants, e.g., regarding gearing profiles in a loan agreement, that may be breached by the translated domestic currency position, or if management believes that translation gains or losses will materially affect the value of the business.

Economic Exposure

Economic exposure or operational exposure moves outside of the accounting context and has to do with the strategic evaluation of foreign transactions and relationships.

It concerns the implications of any changes in future cash flows which may arise on particular transactions of an enterprise because of changes in exchange rates, or on its operating position within its chosen markets. Its determination requires an understanding of the structure of the markets in which an enterprise and its competitors obtain capital, labour, materials, services and customers. Identification of this exposure focuses attention on that component of an enterprise's value that is dependent on or vulnerable to future exchange rate movements. This has bearing on a corporation's commitment, competitiveness and viability in its involvement in both foreign and domestic markets. By its very nature, it is subjective and variable, due *in part* to the need to estimate future cash flows in foreign currencies. The enterprise needs to plan its strategy, and to make operational decisions in the best way possible, to optimize its position in anticipation of changes in economic conditions.

Identification of Exposure

The three types of exposure mentioned earlier require be identifying, classifying and collating in terms of the foreign currencies involved and their related time frame. This is crucial for management reporting within an enterprise. First consideration must be given to identifying economic exposure whose management will normally fundamentally influence the shape of future transaction and translation exposure.

This is a far more sophisticated exercise which calls for detailed short and longer term analyses of optional foreign investment, borrowing and transaction decisions using simulation or modelling techniques, and/or conducting regular sensitivity analyses. Factors that would be considered include the extent to which commitments have already been made, the actions and market positions of major competitors, the flexibility to vary pricing in the market places concerned, and whether acquisitions and operations in foreign countries can be effectively financed in the currency of the country concerned. The examination of the implications of this exposure should be undertaken prior to the commitment and be subjected to regular review thereafter.

CONCLUSION

To the extent that it is quantifiable, economic exposure can be identified in a similar manner to transaction exposure, by focusing on the cash flows involved. The time horizon will, however, be much less specific for economic exposure and will depend on the particular circumstances of the enterprise and the degree of detail and expertise available.

It may help to look at how economic exposure has affected the business in the past as a starting point for assessing how it may do so in the future.

REVIEW QUESTIONS

1. Define Financial Management.
2. Explain the scope of Financial Management.
3. Discuss the objectives of Financial Management.
4. Enumerate the functions of Financial Management.
5. How will you evaluate the risk?
6. Explain the concept of wealth in the context of wealth maximization objectives.
7. Mention the different types of risk.

8. Define Exposure. State the different type of exposure.
9. Explain the factors that cause risk in business.
10. Narrate the importance of Financial Management in Business.

UNIT I - (C)

THE FOREIGN EXCHANGE MARKET

Exchange Rate, Interest Rate, Inflation Rate and Exposure

Objectives

- To get an idea of Global Financial Markets
- To know about interest rate
- To understand the meaning of inflation and exposure

INTRODUCTION

The idea of an exchange rate is familiar to anyone who has been on holiday abroad. If a person travel from a country where the pound sterling is legal tender to a country where, say, the US dollar is legal tender, the person need to exchange pounds for dollars, and he has to know how many dollars get for each pound. An exchange rate is simply the price of a unit of currency used in one country or area expressed in the money of another country or area.

STRUCTURE OF THE FOREIGN EXCHANGE MARKET

The foreign exchange market is the market in which currencies are bought and sold against each other. It is the largest market in the world. This means that there is no single physical or electronic market place or an organized exchange with a central trade clearing mechanism where traders meet and exchange currencies. It is a worldwide network of inter-bank traders, consisting primarily of banks, connected by telephone lines and computers.

Retail market is the market in which travelers and tourists exchange one country for another in the form of currency notes or travellers' cheques. The total turnover and average transaction size are very small. The spread between buying and selling prices is large. The interbank market participants are commercial banks, investment institutions, non-financial corporations and central banks. Among the participants in this market, primary price makers or professional dealers make a two-way market to each other and to their clients' i.e on request they will quote a two-way price a price to buy currency A against B and a price to sell A against B – and be prepared to take either the buy or the sell side. This group includes mainly commercial banks but some large investment dealers and a few large corporations have also assumed the role of primary dealers. In the retail market there are entities that quote foreign exchange rates but do not make a two way market.

They are secondary price makers. Restaurants, hotels, shops catering to tourists buy foreign currency in payment of bills; some entities specialize in retail business for travelers and buy and sell foreign currencies and travellers cheques.

The foreign currency brokers act as middlemen between two market makers. Their main function is to provide information to market making banks about prices at which there are firm buyers and sellers in a pair of currencies. There are price takers who take the prices quoted by primary price makers and buy or sell currencies for their own purposes but do not make a market themselves. Corporations use the foreign exchange market for a variety of purposes related to their operations. Among these are payments for imports, conversion of export receipts, hedging of receivables and payables, payment of interest on foreign currency loans, placement of surplus funds and so forth.

TYPES OF TRANSACTIONS AND SETTLEMENT DATES

Settlement of a transaction takes place by transfers of deposits between the two parties. The day on which these transfers are affected is called the settlement date or the value date. To make affect the transfers, banks in the countries of the two countries involved must be open for business. The relevant countries are called settlement locations. Depending upon the time elapsed between the transaction date and the settlement date, foreign exchange transactions can be categorized in to spot and forward transactions. The third type called swaps is combination of a spot and a forward transaction.

Exchange Rate

In finance, an **exchange rate** (also known as a **foreign-exchange rate**, **forex rate**, **FX rate**) between two currencies is the rate at which one currency will be exchanged for another. The price of a nation's currency in terms of another currency is called Exchange Rate. An exchange rate thus has two components, the domestic currency and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency, or cross rate.

The buying rate is the rate at which money dealers will buy foreign currency, and the selling rate is the rate at which they will sell the currency. The quoted rates will incorporate an allowance for a dealer's margin (or profit) in trading, or else the margin may be recovered in the form of a commission or in some other way. Different rates may also be quoted for cash (usually notes only), a documentary form (such as traveler's cheques) or electronically (such as a credit card purchase). The higher rate on documentary transactions has been justified to compensate for the additional time and cost of clearing the document, while the cash is available for resale immediately. Some dealers on the other hand prefer documentary transactions because of the security concerns with cash.

An exchange rate has a base currency and a counter currency. In a direct quotation, the foreign currency is the base currency and the domestic currency is the counter currency. In an indirect quotation, the domestic currency is the base currency and the foreign currency is the counter currency. Most exchange rates use the US dollar as the base currency and other currencies as the counter currency. However, there are a few exceptions to this rule, such as the euro and Commonwealth currencies like the British pound, Australian dollar and New Zealand dollar. Exchange rates for most major currencies are generally expressed to four places after the decimal, except for currency quotations involving the Japanese yen, which are quoted to two places after the decimal. Exchange rates can be floating or fixed. While floating exchange rates – in which currency rates are determined by market force – are the norm for most major nations, some nations prefer to fix or peg their domestic currencies to a widely accepted currency like the US dollar. Exchange rates can also be categorized as the spot rate – which is the current rate – or a forward rate, which is the spot rate adjusted for interest rate differentials.

FLUCTUATIONS IN EXCHANGE RATES

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).

Increased demand for a currency can be due to either an increased transaction demand for money or an increased speculative demand for money. The transaction demand is highly correlated to a country's level of business activity, gross domestic product (GDP), and employment levels. The more people that are unemployed, the less the public as a whole will spend on goods and services. Central banks typically have little difficulty adjusting the available money supply to accommodate changes in the demand for money due to business transactions.

Speculative demand is much harder for central banks to accommodate, which they influence by adjusting interest rates. A speculator may buy a currency if the return (that is the interest rate) is high enough. In general, the higher a country's interest rates, the greater will be the demand for that currency. It has been argued that such speculation can undermine real economic growth, in particular since large currency speculators may deliberately create downward pressure on a currency by shorting in order to force that central bank to buy their own currency to keep it stable. (When that happens, the speculator can buy the currency back after it depreciates, close out their position, and thereby take a profit.) For carrier companies shipping goods from one nation to another, exchange rates can often impact them severely. Therefore, most carriers have a CAF charge to account for these fluctuations.

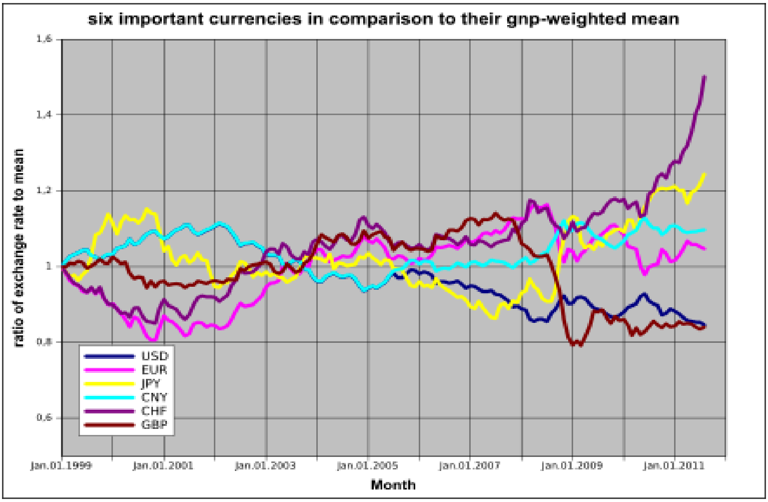
PURCHASING POWER OF CURRENCY

The real exchange rate (RER) is the purchasing power of a currency relative to another at current exchange rates and prices. It is the ratio of the number of units of a given country's currency necessary to buy a market basket of goods in the other country, after acquiring the other country's currency in the foreign exchange market, to the number of units of the given country's currency that would be necessary to buy that market basket directly in the given country.

There are different kinds of measurement for RER. Thus the real exchange rate is the exchange rate times the relative prices of a market basket of goods in the two countries. For example, the purchasing power of the US dollar relative to that of the euro is the dollar price of a euro (dollars per euro) times the euro price of one unit of the market basket (euros/goods unit) divided by the dollar price of the market basket (dollars per goods unit), and hence is dimensionless. This is the exchange rate (expressed as dollars per euro) times the relative price of the two currencies in terms of their ability to purchase units of the market basket (euros per goods unit divided by dollars per goods unit).

If all goods were freely tradable, and foreign and domestic residents purchased identical baskets of goods, purchasing power parity (PPP) would hold for the exchange rate and GDP deflators (price levels) of the two countries, and the real exchange rate would always equal 1. The rate of change of this real exchange rate over time equals the rate of appreciation of the euro (the positive or negative percentage rate of change of the dollars-per-euro exchange rate) plus the inflation rate of the euro minus the inflation rate of the dollar.

BILATERAL vs. EFFECTIVE EXCHANGE RATE



Bilateral exchange rate involves a currency pair, while an effective exchange rate is a weighted average of a basket of foreign currencies, and it can be viewed as an overall measure of the country's external competitiveness. A nominal effective exchange rate (NEER) is weighted with the inverse of the asymptotic trade weights. A real effective exchange rate (REER) adjusts NEER by appropriate foreign price level and deflates by the home country price level. Compared to NEER, a GDP weighted effective exchange rate might be more appropriate considering the global investment phenomenon. Example of GNP-weighted nominal exchange rate history of a basket of 6 important currencies (US Dollar, Euro, Japanese Yen, Chinese Renminbi, Swiss Franks, Pound Sterling)

THE ASSET MARKET MODEL

This model implies that a currency will be in higher demand and should appreciate in value, if capital flows to the financial markets of that country increase. The Asset Market Model emphasizes financial assets. Any capital inflow and outflow initiated by investors involves currency.

For example, a hedge fund decided to sell the DAX and switched to SMI is effectively selling EUR/CHF. A second example is to sell to buy a property in London using the funds obtained via the sales of a house in Spain. This implies that EUR/GBP is sold. Correlation US Treasuries vs. USD/JPY (source DailyFX). Another example is the correlation between Japanese government bond (JGB) yields and US treasuries and the Japanese yen. When government bonds rise in price (and inversely correlated yields fall), then the yen appreciates. Especially the huge number of Japanese private investors moves out of riskier assets, e.g. American stocks, into safe bonds, consequently the yen gets stronger.

The increasing volume of trading of financial assets (stocks and bonds) has required a rethink of its impact on exchange rates. Economic variables such as economic growth, inflation and productivity are no longer the only drivers of currency movements. The proportion of foreign exchange transactions stemming from cross border-trading of financial assets has dwarfed the extent of currency transactions generated from trading in goods and services. The asset market approach views currencies as asset prices traded in an efficient financial market. Consequently, currencies are increasingly demonstrating a strong correlation with other markets, particularly equities. Like the stock exchange, money can be made (or lost) on trading by investors and speculators in the foreign exchange market. Currencies can be traded at spot and foreign exchange options markets. The spot market represents current exchange rates, whereas options are derivatives of exchange rates.

NET CAPITAL OUTFLOW

Net capital outflows (NCOs, also called net foreign investment) make reference to the difference between the acquisition of foreign assets by domestic residents and the acquisition of domestic assets by non-residents. Net capital outflows take two forms: foreign direct investment, and portfolio investment. Foreign direct investment implies actively managing the asset or the interest bought, while portfolio investment requires no role at all in management. An open economy can therefore buy and sell assets in the financial markets, generating flows of capital.

NCO = Acquisition of foreign assets by residents – Acquisition of domestic assets by nonresidents

When the net capital outflow is positive, domestic residents are buying more foreign assets than foreigners are purchasing domestic assets. When it's negative, foreigners are purchasing more domestic assets than residents are purchasing foreign assets.

Imbalances in the net capital outflow (NCO) are associated with imbalances in the trade balance (or net exports, NX), following the identity NCO = NX. Each exchange that affects the net capital outflow, also affects net exports in the same amount. For instance, if an economy is running a trade deficit, it must be financing the net purchase of goods and services by selling assets abroad. If it's running a trade surplus, the excess in foreign currency it receives is being used to buy assets from abroad. Since net capital outflows are related to net exports, they are therefore related to gross domestic production. From the equation showing the relationship between the current account, savings and investment:

S = I + NX = I + NCO
Where:
S = savings; I = domestic investment; NX = net exports; NCO = net capital outflows

CAPITAL ASSET PRICING MODEL - CAPM

A model that describes the relationship between risk and expected return and that is used in the pricing of risky securities.

$$\overline{r_a} = r_f + \beta_a(\overline{r_m} - r_f)$$

Where:
r_f = Risk free rate
β_a = Beta of the security
$\overline{r_m}$ = Expected market return

The general idea behind CAPM is that investors need to be compensated in two ways: time value of money and risk. The time value of money is represented by the risk-free (rf) rate in the formula and compensates the investors for placing money in any investment over a period of time. The other half of the formula represents risk and calculates the amount of compensation the investor needs for taking on additional risk. This is calculated by taking a risk measure (beta) that compares the returns of the asset to the market over a period of time and to the market premium (Rm-rf).

MANIPULATION OF EXCHANGE RATES

A country may gain an advantage in international trade if it controls the market for its currency to keep its value low, typically by the national central bank engaging in open market operations.

The People's Republic of China has been acting this way over a long period of time. Other nations, including Iceland, Japan, Brazil, and so on also devalue their currencies in the hopes of reducing the cost of exports and thus bolstering their economies. A lower exchange rate lowers the price of a country's goods for consumers in other countries, but raises the price of imported goods and services, for consumers in the low value currency country. In general, a country that exports goods and services will prefer a lower value on their currencies, while a country that imports goods and services will prefer a higher value on their currencies.

INTEREST RATE

The amount charged, expressed as a percentage of principal, by a lender to a borrower for the use of assets. Interest rates are typically noted on an annual basis, known as the annual percentage rate (APR). The assets borrowed could include, cash, consumer goods, large assets, such as a vehicle or building. Interest is essentially a rental, or leasing charge to the borrower, for the asset's use. In the case of a large asset, like a vehicle or building, the interest rate is sometimes known as the "lease rate". When the borrower is a low-risk party, they will usually be charged a low interest rate; if the borrower is considered high risk, the interest rate that they are charged will be higher.

An **interest rate** is the rate at which interest is paid by borrowers (debtors) for the use of money that they borrow from lenders (creditors). Specifically, the interest rate is a percentage of principal paid a certain number of times per period for all periods during the total term of the loan or credit. Interest rates are normally expressed as a percentage of the principal for a period of one year; sometimes they are expressed for different periods like for a month or a day. Different interest rates exist parallel for the same or comparable time periods, depending on the default probability of the borrower, the residual term, the payback currency, and many more determinants of a loan or credit. For example, a company borrows capital from a bank to buy new assets for its business, and in return the lender receives rights on the new assets as collateral and interest at a predetermined interest rate for deferring the use of funds and instead lending it to the borrower. Interest-rate targets are a vital tool of monetary policy and are taken into account when dealing with variables like investment, inflation, and unemployment. The central banks of countries generally tend to reduce interest rates when they wish to increase investment and consumption in the country's economy.

However, a low interest rate as a macro-economic policy can be risky and may lead to the creation of an economic bubble, in which large amounts of investments are poured into the real-estate market and stock market. In developed economies, interest-rate adjustments are thus made to keep inflation within a target range for the health of economic activities or cap the interest rate concurrently with economic growth to safeguard economic momentum.

Using the simple interest formula—Simple Interest = P (principal) × I (annual interest rate) × N (years)—borrowing \$1,000 at a 6% annual interest rate for 8 months means that the borrower would owe \$40 in interest (1000 × 6% × 8/12). Using the compound interest formula—Compound Interest = P (principal) × [(1 + I(interest rate)^{N} (months)) - 1]—borrowing \$1,000 at a 6% annual interest rate for 8 months means that the borrower would owe \$40.70. Compounded interest nets higher amounts because interest has been charged monthly on the principal plus accrued interest from the previous months. For shorter time frames, the calculation is similar for both methods. As the lending time increases, though, the disparity between the two types of interest calculations grows. The rate charged the borrower each period for the loan of money, by custom quoted on an annual basis. A mortgage interest rate is a rate on a loan secured by a specific property.

Calculating the Interest Due from the Interest Rate

The interest rate is used to calculate the interest payment the borrower owes the lender. Since the interest payment is calculated monthly, the rate must be divided by 12 before it is used to calculate the payment. Assume a 6% $100,000 loan. In decimals, 6% is .06 and when divided by 12 it is .005. Multiply .005 times $100,000 and will get $500 as the monthly interest due.

Real vs. Nominal interest rates

The nominal interest rate is the amount, in percentage terms, of interest payable. For example, suppose household deposits $100 with a bank for 1 year and they receive interest of $10. At the end of the year their balance is $110. In this case, the nominal interest rate is 10% per annum. The real interest rate, which measures the purchasing power of interest receipts, is calculated by adjusting the nominal rate charged to take inflation into account. If inflation in the economy has been 10% in the year, then the $110 in the account at the end of the year buys the same amount as the $100 did a year ago. The real interest rate, in this case, is zero.

After the fact, the 'realized' real interest rate, which has actually occurred, is given by the Fisher equation, and is

$$r = \frac{1+i}{1+p} - 1$$

Where p = the actual inflation rate over the year. The linear approximation

$$r \approx i - p$$

is widely used.

The expected real returns on an investment, before it is made, are:

$$i_r = i_n - p_e$$

where:

i_r = real interest rate; i_n = nominal interest rate;
p_e = expected or projected inflation over the year

Interest rate notations

Commonly referred to as the *interest rate* in the media is generally the rate offered on overnight deposits by the Central Bank or other authority, annualized. The total interest on a loan or investment depends on the timescale the interest is calculated on, because interest paid may be compounded. In retail finance, the annual percentage rate and effective annual rate concepts have been introduced to help consumers easily compare different products with different payment structures. In business and investment finance, the effective interest rate is often derived from the yield, a composite measure which takes into account all payments of interest and capital from the investment. The notion of annual effective discount rate, often called simply the *discount rate*, is also used in finance, as an alternative measure to the effective annual rate which is more useful or standard in some contexts. A positive annual effective discount rate is always a lower number than the interest rates it represents.

Interest Rate vs. Total Interest Payments as Cost Measures

Some loan officers encourage borrowers to view total interest payments, rather than the interest rate, as the measure of cost they seek to minimize. Interest payments, in contrast, depend not only on the rate but also on the loan amount and the maturity. Some borrowers bamboozled by this argument pay a higher interest rate or fees for a biweekly mortgage that cuts their interest payments. But the lower interest payments on a biweekly are due to a shortening of the term, which results from making an extra monthly payment every year.

Quoted Rates vs. Actual Rates

Not everybody can borrow at the rates quoted in the media, which are based on numerous favourable assumptions: that the applicant's credit is good, they have enough income to qualify, they can fully document their income and assets, and they will occupy the house as their primary residence, and on and on. If a particular applicant doesn't meet all the assumptions, his or her rate will be higher.

OTHER TYPES OF INTEREST RATES

- **LIBOR:** This is the rate banks charge each other for overnight loans to meet the Fed's reserve requirements. It is an acronym for the London Interbank Offering Rate. It is usually just a few tenths of a point higher than the Fed funds rate.
- **Prime Rate:** It is usually above the Fed funds rate, but a few points below the average variable interest rate.
- **Credit Card Rate:** This is usually the highest interest rate of all. That's because credit cards require a lot of maintenance since they are part of the revolving credit category. These interest rates are typically several points higher than the LIBOR rate.
- **Non-revolving Credit Rate:** These are typically consumer loans for automobiles, education and large consumer purchases like furniture. These interest rates are higher than the prime rate, but lower than revolving credit. Since these loans are typically one, three, and five or 10 years, they vary along with the yields on 1-year, 5-year, and 10-year Treasury notes.

DETERMINANTS OF MORTGAGE RATES

Mortgage rates are set through the continual interaction of financial forces in the economy. The interdependent actions of investors, consumers and government policy create the economic forces that push interest rates downward or upward. As mortgage rates change, borrowing becomes either more or less expensive, which in turn influences demand for homes. Having a grasp on the determinants of mortgage rates helps prospective homeowners understand how mortgages are priced.

Federal Funds Rate

Mortgage rates are set in part by changes in the federal funds rate, which is the interest rate that banks charge each other for overnight loans. These overnight loans are made between banks to stay in compliance with federally required reserves each bank must hold.

The federal funds rate influences the total supply of money and credit in the economy because it influences the interest rates banks charge their customers for loans and business investment. A higher federal funds rate places upward pressure on the level of interest rates across the economy, while a lower federal funds rate helps decrease interest rates in the economy.

Economic Conditions

The federal funds rate is not independent but responsive to economic conditions. The Federal Reserve Bank is the federal entity that monitors the performance of the national economy and implements monetary policy, including setting the federal funds rate. Regular economic analysis by the Federal Reserve and its 12 district banks across the United States helps establish an appropriate federal funds rate to control or encourage economic growth.

New Home Sales

The construction and sale of new homes is a widely observed indicator of market conditions and especially in the demand for mortgage borrowing. Strong growth in new home sales helps fuel an expectation of continued demand for mortgage borrowing. Higher demand for mortgage lending adds upward pressure to mortgage interest rates. The opposite is true during periods of declining sales of new homes where demand for mortgage borrowing diminishes, putting downward pressure on mortgage interest rates.

Inflation

Inflation is the upward change in prices that makes mortgage borrowing and lending more expensive. Inflation expectations encourage lenders to adjust their required rates of return to hedge against higher interest rates. The aggregate effect of inflation expectations results in upward pressure on borrowing and lender inflation expectations can exert upward or downward pressure on mortgage rates.

10 Year Treasury

Mortgage rates are also susceptible to changes in major long-term economic indicators like the yield on the 10-year U.S. Treasury bond. Investors and the financial markets consider this particular bond yield an estimate of long-term interest rates. As a result, mortgage lenders can use this rate to price current mortgage interest rates to avoid under pricing loans and to generate long-term gains.

PREDICTING MORTGAGE RATES

The general level of interest rates is not predictable, but specific interest rates that lag the general market may be. Before the development of secondary mortgage markets, mortgage rates had some degree of predictability because they lagged bond yields by anywhere from two to eight months.

REASONS FOR INTEREST RATE CHANGES

- **Political short-term gain:** Lowering interest rates can give the economy a short-run boost. Under normal conditions, most economists think a cut in interest rates will only give a short term gain in economic activity that will soon be offset by inflation. The quick boost can influence elections. Most economists advocate independent central banks to limit the influence of politics on interest rates.
- **Deferred consumption:** When money is loaned the lender delays spending the money on consumption goods. Since according to time preference theory people prefer goods now to goods later, in a free market there will be a positive interest rate.

- **Inflationary expectations:** Most economies generally exhibit inflation, meaning a given amount of money buys fewer goods in the future than it will now. The borrower needs to compensate the lender for this.
- **Alternative investments:** The lender has a choice between using his money in different investments. If he chooses one, he forgoes the returns from all the others. Different investments effectively compete for funds.
- **Risks of investment:** There is always a risk that the borrower will go bankrupt, abscond, die, or otherwise default on the loan. This means that a lender generally charges a risk premium to ensure that, across his investments, he is compensated for those that fail.
- **Liquidity preference:** People prefer to have their resources available in a form that can immediately be exchanged, rather than a form that takes time to realize.
- **Taxes:** Because some of the gains from interest may be subject to taxes, the lender may insist on a higher rate to make up for this loss.
- **Banks:** Banks can tend to change the interest rate to either slow down or speed up economy growth. This involves either raising interest rates to slow the economy down, or lowering interest rates to promote economic growth.
- **Economy:** Interest rates can fluctuate according to the status of the economy. It will generally be found that if the economy is strong then the interest rates will be high, if the economy is weak the interest rates will be low.

IMPORTANT OF INTEREST RATES

Interest rates control the flow of money in the economy. High interest rates curb inflation, but also slow down the economy. Low interest rates stimulate the economy, but could lead to inflation. Therefore, it is essential to know whether the rates are increasing or decreasing, but the economic indicators are saying:

- If interest rates are increasing and the Consumer Price Index (CPI) is decreasing, this means the economy is not overheating, which is good.
- But, if rates are increasing and GDP is decreasing, the economy is slowing too much, which could lead to recession.
- If rates are decreasing and GDP is increasing, the economy is speeding up, and that is good.
- But, if rates are decreasing and the CPI is increasing, the economy is headed towards inflation.

RECENT INTEREST RATE TRENDS

Interest rates are headed up, but at a fairly mild pace. The Federal Reserve (Fed) will start pushing short-term rates up this summer, probably in June. Long-term rates will rise also, thanks to global demand for credit rising faster than global savings. The Fed's upcoming tightening decision puzzles many people, because current inflation is very low. The Fed's goal is for their favorite inflation gauge, the personal consumption price index excluding food and energy, to rise by two percent annually. The key to the Fed's thinking, though, is time lags. In crude terms, the time lag between Fed action and the real side of the economy (spending, employment and production) is about one year, and the further lag to price changes is another year. Thus, the Fed today is thinking about the prospects for inflation in 2017. The current rate of economic growth could well result in accelerating inflation two years from now, so the Fed will act soon.

INFLATION RATE AND EXPOSURE

The term "inflation" originally referred to increases in the amount of money in circulation, and some economists still use the word in this way. However, most economists today use the term "inflation" to refer to a rise in the price level. An increase in the money supply may be called monetary inflation, to distinguish it from rising prices, which may also for clarity be called "price inflation". Economists generally agree that in the long run, inflation is caused by increases in the money supply.

It is important to distinguish the word "inflation" conceptually, since it refers only to the general trend, not specific one. For example, if people buy much more cucumbers than tomatoes, which consequently become cheaper, it does not correspond to the inflation - it is a simple shift of tastes. It was easier to observe when currency was linked with the gold price. If new gold deposits were found, the prices on gold would become lower and prices – higher and vice versa.

Other economic concepts related to inflation include: deflation – a fall in the general price level; disinflation – a decrease in the rate of inflation; hyperinflation – an out-of-control inflationary spiral; stagflation – a combination of inflation, slow economic growth and high unemployment; inflation – an attempt to raise the general level of prices to counteract deflationary pressures; and Asset price inflation - a general rise in the prices of financial assets without a corresponding increase in the prices of goods or services. Since there are many possible measures of the price level, there are many possible measures of price inflation. The Consumer Price Index (CPI), the Personal Consumption Expenditures Price Index (PCEPI) and the GDP deflator are some examples of broad price indices.

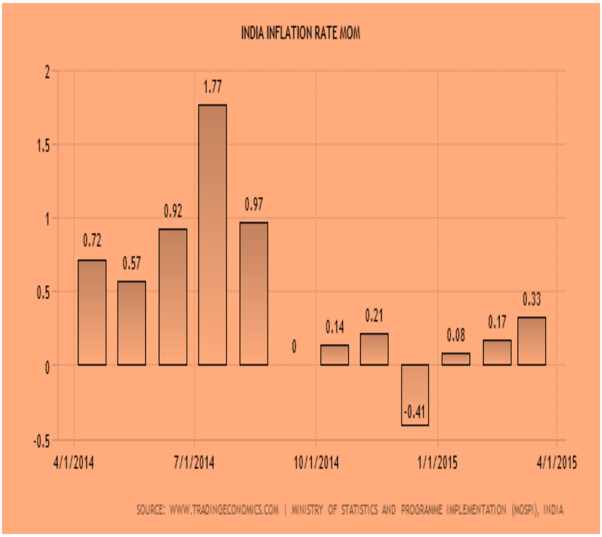
However, "inflation" may also be used to describe a rising price level within a narrower set of assets, goods or services within the economy, such as commodities (including food, fuel, metals), tangible assets (such as real estate), financial assets (such as stocks, bonds), services (such as entertainment and health care), or labor.

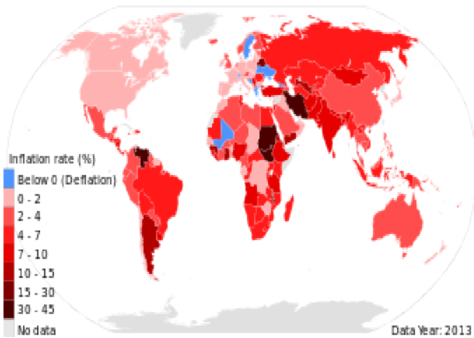
Although the values of capital assets are often casually said to "inflate," this should not be confused with inflation as a defined term; a more accurate description for an increase in the value of a capital asset is appreciation. The Reuters-CRB Index (CCI), the Producer Price Index, and Employment Cost Index (ECI) are examples of narrow price indices used to measure price inflation in particular sectors of the economy. Core inflation is a measure of inflation for a subset of consumer prices that excludes food and energy prices, which rise and fall more than other prices in the short term. The Federal Reserve Board pays particular attention to the core inflation rate to inflation affects an economy in various ways, both positive and negative. Negative effects of inflation include an increase in the opportunity cost of holding money, uncertainty over future inflation which may discourage investment and savings, and if inflation were rapid enough, shortages of goods as consumers begin hoarding out of concern that prices will increase in the future. Positive effects include ensuring that central banks can adjust real interest rates (to mitigate recessions), and encouraging investment in non-monetary capital projects.

Economists generally believe that high rates of inflation and hyperinflation are caused by an excessive growth of the money supply. However, money supply growth does not necessarily cause inflation. Some economists maintain that under the conditions of a liquidity trap, large monetary injections are like "pushing on a string". Views on which factors determine low to moderate rates of inflation are more varied. Low or moderate inflation may be attributed to fluctuations in real demand for goods and services, or changes in available supplies such as during scarcities. However, the consensus view is that a long sustained period of inflation is caused by money supply growing faster than the rate of economic growth.

Today, most economists favour a low and steady rate of inflation. Low (as opposed to zero or negative) inflation reduces the severity of economic recessions by enabling the labour market to adjust more quickly in a downturn, and reduces the risk that a liquidity trap prevents monetary policy from stabilizing the economy. The task of keeping the rate of inflation low and stable is usually given to monetary authorities. Generally, these monetary authorities are the central banks that control monetary policy through the setting of interest rates, through open market operations, and through the setting of banking reserve requirements.

Inflation rates





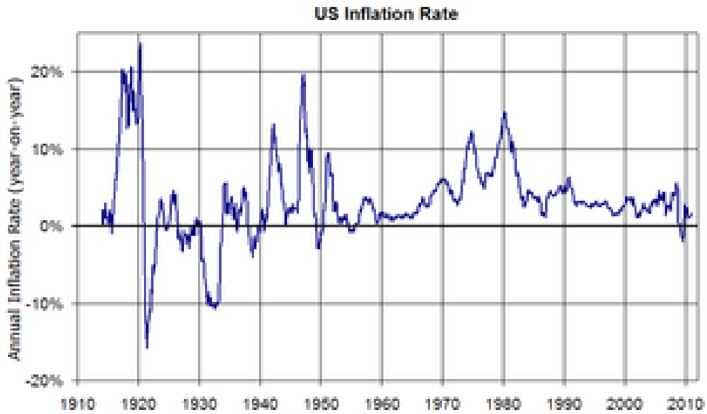
Inflation rates around the world in 2013, per International Monetary Fund

Increases in quantity of the money or in the overall money supply (or debasement of the means of exchange) have occurred in many different societies throughout history, changing with different forms of money used. For instance, when gold was used as currency, the government could collect gold coins, melt them down, mix them with other metals such as silver, copper or lead, and reissue them at the same nominal value. By diluting the gold with other metals, the government could issue more coins without also needing to increase the amount of gold used to make them. This practice would increase the money supply but at the same time the relative value of each coin would be lowered. As the relative value of the coins becomes lower, consumers would need to give more coins in exchange for the same goods and services as before. These goods and services would experience a price increase as the value of each coin is reduced.

Song Dynasty China introduced the practice of printing paper money in order to create fiat currency. During the Mongol Yuan Dynasty, the government spent a great deal of money fighting costly wars, and reacted by printing more, leading to inflation. The problem of inflation became so severe that the people stopped using paper money, which they saw as "worthless paper." Fearing the inflation that plagued the Yuan dynasty, the Ming Dynasty initially rejected the use of paper money, using only copper coins. The dynasty did not issue paper currency until 1375. Historically, infusions of gold or silver into an economy also led to inflation.

From the second half of the 15th century to the first half of the 17th, Western Europe experienced a major inflationary cycle referred to as the "price revolution", with prices on average rising perhaps six fold over 150 years. This was largely caused by the sudden influx of gold and silver from the New World into Habsburg Spain. The silver spread throughout a previously cash-starved Europe and caused widespread inflation. Demographic factors also contributed to upward pressure on prices, with European population growth after depopulation caused by the Black Death pandemic.

MEASURES



CPI inflation (year-on-year) in the United States from 1914 to 2010

The inflation rate is widely calculated by calculating the movement or change in a price index, usually the consumer price index. The inflation rate is the percentage rate of change of a price index over time. The Retail Prices Index is also a measure of inflation that is commonly used in the United Kingdom. It is broader than the CPI and contains a larger basket of goods and services. To illustrate the method of calculation, in January 2007, the U.S. Consumer Price Index was 202.416, and in January 2008 it was 211.080. The formula for calculating the annual percentage rate inflation in the CPI over the course of the year is:

$$\left(\frac{211.080 - 202.416}{202.416}\right) \times 100\% = 4.28\%$$

The resulting inflation rate for the CPI in this one-year period is 4.28%, meaning the general level of prices for typical U.S. consumers rose by approximately four percent in 2007.

Other widely used price indices for calculating price inflation include the following:

- **Producer price indices** (PPIs) which measures average changes in prices received by domestic producers for their output. This differs from the CPI in that price subsidization, profits, and taxes may cause the amount received by the producer to differ from what the consumer paid. There is also typically a delay between an increase in the PPI and any eventual increase in the CPI. Producer price index measures the pressure being put on producers by the costs of their raw materials. This could be "passed on" to consumers, or it could be absorbed by profits, or offset by increasing productivity. In India and the United States, an earlier version of the PPI was called the Wholesale Price Index.

- **Commodity price indices**, which measure the price of a selection of commodities. In the present commodity price indices are weighted by the relative importance of the components to the "all in" cost of an employee.
- **Core price indices**: because food and oil prices can change quickly due to changes in supply and demand conditions in the food and oil markets, it can be difficult to detect the long run trend in price levels when those prices are included. Therefore most statistical agencies also report a measure of 'core inflation', which removes the most volatile components (such as food and oil) from a broad price index like the CPI. Because core inflation is less affected by short run supply and demand conditions in specific markets, central banks rely on it to better measure the inflationary impact of current monetary policy.

Other common measures of inflation are:

- **GDP deflator** is a measure of the price of all the goods and services included in gross domestic product (GDP). The US Commerce Department publishes a deflator series for US GDP, defined as its nominal GDP measure divided by its real GDP measure.

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}}$$

- **Regional inflation** The Bureau of Labor Statistics breaks down CPI-U calculations down to different regions of the US.

- **Historical inflation** Before collecting consistent econometric data became standard for governments, and for the purpose of comparing absolute, rather than relative standards of living, various economists have calculated imputed inflation figures. Most inflation data before the early 20th century is imputed based on the known costs of goods, rather than compiled at the time. It is also used to adjust for the differences in real standard of living for the presence of technology.
- **Asset price inflation** is an undue increase in the prices of real or financial assets, such as stock (equity) and real estate. While there is no widely accepted index of this type, some central bankers have suggested that it would be better to aim at stabilizing a wider general price level inflation measure that includes some asset prices, instead of stabilizing CPI or core inflation only. The reason is that by raising interest rates when stock prices or real estate prices rise, and lowering them when these asset prices fall, central banks might be more successful in avoiding bubbles and crashes in asset prices.

ADR and GDR

AMERICAN DEPOSITORY RECEIPT

An American depositary receipt is a negotiable security that represents securities of a non-U.S. company that trades in the U.S. financial markets. ADRs are also traded during U.S. trading hours, through U.S. broker-dealers. They simplify investing in foreign securities by having the depositary bank "manage all custody, currency and local taxes issues". The first ADR was introduced by J.P. Morgan in 1927 for the British retailer Selfridges on the New York Curb Exchange, the American Stock Exchange's precursor. They are the domestic equivalent of a global depository receipt (GDR). Securities of a foreign company that are represented by an ADR are called American depositary shares (ADSs).

Advantages

- increased settlement
- improved satisfaction with the outcome or manner in which the dispute is resolved among disputants
- reduced time in dispute
- reduced costs in relating to the dispute resolution
- Increased compliance with agreed solutions.

Disadvantages

- delivers reduced costs and increases timeliness
- delivers a sound and fair outcome, and
- Generates agreements that can be sustained and enforced.

Steps before Issue of ADR

The issuing bank in the US studies the financials of the foreign company in detail to assess the strength of its stock.

- The bank buys shares of the foreign company.
- The shares are grouped into packets.
- Each packet is issued as an ADR through an American stock exchange.

The ADR is priced in dollars, and the dividends are paid out in dollars as well, making it as simple for an American investor to buy as the stock of a US based company. Today, there are thousands of ADRs in the American markets offered by leading banks like Deutsche Bank and JP Morgan.

Pricing of ADR

When an ADR is issued, it typically follows the price of the underlying foreign stock. For example, consider company A's shares that have a current market value of $5 (after currency conversion) in the foreign country. The company issues ADRs through a bank. The bank purchases 10 million shares of the company and issues ADRs at a ratio of 5:1. This means that every ADR is worth 5 shares of the company. Each ADR will initially be priced to reflect the prevailing share value in the home country. In this case, the ADR will be priced at $25. Subsequent price movements are influenced by demand supply forces, the condition of the foreign country's economy, and the prospects for the company and several other factors.

Classification of ADR

ADRs come in different types depending on how and where they can be traded.

OTC ADR (Level 1): These are not listed on any US exchange and can be traded only in the over-the-counter (OTC) market. These ADRs are not subject to very stringent regulations from the SEC. They represent shares of foreign companies that do not qualify for a US exchange listing or choose not to list on the exchange. Investors can buy unsponsored OTC ADRs, which can be issued by more than one bank. Sponsored OTC ADRs are generally confined to being issued by one sponsoring bank. They are also more structured than unsponsored ones.

Listed ADR (Level 2): These are typically listed on the NASDAQ or the NYSE and are subject to stricter SEC regulations which all listed companies need to comply with.

Public Issues (Level 3): Some ADRs may be offered through a public issue by the sponsoring bank. The foreign company can raise substantial funds from the American markets with these ADRs. Publicly issued ADRs require the most stringent adherence to SEC rules.

GLOBAL DEPOSITARY RECEPIT

GDR can be defined as a foreign currency denominated derivative instrument in the form of depository receipt created outside India and issued to non-resident investors entitling them to the benefits of specific number of ordinary equity shares or fully convertible bonds of a domestic company.

Characteristics

The Characteristic features are as follow:

1. GDR's are issued to investors in more than one country and may be denominated in any acceptable freely convertible currency.

2. GDR's are issued to investors by the depository bank and not the issuing company. This means that in the books of issuing company, the depository bank appears as the shareholder. GDR holder therefore does not acquire any voting rights. The voting rights accrue only to the depository bank.
3. Although the GDR is quoted and traded in a foreign currency the underlying shares are denominated in INR. Thus the GDR derives its value through the price of the underlying shares and the current exchange rate. It is therefore exposed to exchange rate risk.
4. GDR holders have the option of cancelling GDR's and arranging sale of the underlying shares in the domestic market if the international price is less than the corresponding domestic price. This provision can however be used only after a "Cooling off" period of 45 days from the date of the issue.

Advantages

The advantages of a GDR issue are:

- It eliminates the equity funding risk. This is because GDR holders do not acquire voting rights, and therefore the promoters are not in danger of losing management control.
- Companies having international operations are able to build a brand image which helps in their marketing efforts.
- Investors have the benefit of having access to good quality companies in other countries without political risk, operational risk and excessive regulatory control.
- Through a GDR issue the company is able to create a potential demand for its shares at the international level which results in a higher valuation for its shares in the domestic market. This results in a higher PE ratio which reduces the cost of capital.
- Indian companies with a good financial track record of three years arc readily allowed access to international markets though such issues. Clearances are required from the Foreign Investment Promotion Board (FIPB) and the Ministry of Finance.

Difference between ADR and GDR

- Global depository receipt (GDR) is compulsory for foreign company to access in any other country's share market for dealing in stock. But American depository receipt (ADR) is compulsory for non –us companies to trade in stock market of use.
- ADRs can get from level -1 to level –III. GDRs are already equal to high preference receipt of level –II and level –III.
- Indian companies prefer to get GDR due to its global use for getting foreign investment for own business projects.
- ADRs up to level –I need to accept only general condition of SEC of USA but GDRs can only be issued under rule 144 A after accepting strict rules of SEC of USA .
- GDR is negotiable instrument all over the world but ADR is only negotiable in USA.
- Many Indian Companies listed foreign stock market through foreign bank's GDR. **Names of these Indian Companies are following :-** (A) Bajaj Auto (B) Hindalco (C) ITC (D) L&T (E) Ranbaxy Laboratories (F) SBI. **Some of Indian Companies are listed in USA stock exchange only through ADRs :-** (A) Patni Computers (B) Tata Motors
- Even both GDR and ADR is the proxy way to sell shares in foreign market by India companies ADRs is not substitute of GDRs but GDRs can use on the place of ADRs .
- Investors of UK can buy GDRs from London stock exchange and luxemberg stock exchange and invest in Indian companies without any extra responsibilities. Investors of USA can buy ADRs from New York stock exchange (NYSE) or NASDAQ (National Association of Securities Dealers Automated Quotation).
- American investors typically use regular equity trading accounts for buying ADRs but not for GDRs.
- The US dollar rate paid to holders of ADRs is calculated by applying the exchange rate used to convert the foreign dividend payment (net of local withholding tax) to US

dollars, and adjusting the result according to the ordinary share but GDRs is calculated on numbers of Shares.

CONCLUSION

At the macro level developing countries have suffered from the increase in real rates of interest as the interest payments on their floating rate borrowings have eaten away a progressively increasing part of their real export earnings. During the early eighties, investor preferences shifted towards floating rate instruments thus exposing borrowers to substantial interest rate risks. With increasing recourse to external commercial borrowings, Indian companies have had to recognize and learn to manage interest rate risk. Exchange rate forecasts are an important input into a number of corporate financial decisions. Whether and how to hedge a particular exposure, the choice of currency for short and long-term borrowing and investment, choice of invoicing currency, pricing decisions, all require some estimates of future exchange rates. This chapter concludes with a brief historical overview of the evolution of the exchange rate.

REVIEW QUESTIONS

1. Discuss the structure of the Foreign Exchange Market.
2. State the different types of transactions.
3. Define Exchange Rate.
4. Write a short note on purchasing power of currency.
5. Describe Asset Market Model in detail.
6. Define Interest Rate.
7. How will you calculate Interest Due from the Interest Rate?
8. Mention the different types of Interest Rate.
9. Write a short note on Inflation Rate and Exposure.
10. Describe the common measures of Inflation.
11. Explain the advantages and disadvantages of ADR and GDR.

UNIT II - (D)

CAPITAL STRUCTURE AND FIRM VALUE

Objectives

- To review the definition, assumptions relating to capital structure theories.
- To explain the major capital structure theories.
- To know the essential features of an optimal capital mix.

INTRODUCTION

The choice of a firm's capital structure is a marketing problem. It is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders. The objective of financial management is to maximize shareholders' wealth, the key issue is: to find the relationship between capital structure and firm value and to know the relationship between capital structure and cost of capital. Many argue that there is no relationship between capital structure and firm value; others believe that financial leverage has a positive effect on firm value up to a point and negative effect thereafter; still others contend that, other things being equal, greater the leverage, greater the value of the firm.

CAPITAL STRUCTURE MANAGEMENT

Capital structure planning keyed to the objective of profit maximization ensures the minimum cost of capital and the maximum rate of return to equity holders. The amount of capital a firm needs is not its only financial consideration. Equally important is the capital mix; the kinds of capital that form the company's financial base.

According to Gerstenberg, capital structure refers to 'the makeup of firm's capitalisation'. In other words, it represents the mix of different sources of long-term funds (such as equity shares, preference shares, long-term loans, retained earnings' etc) in the total capitalisatioin of the company. E.F. Brigham defines capital structure as, "the percentage share of each type of capital used by the firm-debt, preference share capital, equity share capital and retained earnings." For example, a company has equity shares of Rs. 2, 00,000, debentures Rs. 1, 00,000, preference shares of Rs. 1, 00,000 and retained earnings of Rs. 50,000. The term capital structure is used for the mix of capitalization.

Here, the capital structure of the company consist of Rs. 2,00,000 in equity shares, Rs. 1,00,000 preference shares, Rs. 1,00,000 in debentures and Rs. 50,000 in retained earnings.

Thus, capital structure represents the mix of different long-term sources of funds-loans, preference share capital, equity share capital and retained earnings. In short, capital structure refers to the proportion of debt and equity in the capitalization of a firm.

ASSUMPTIONS

To examine the relationship between capital structure and cost of capital the following are the assumptions are made:

- There is no income tax, corporate or personal.
- The firm pursues a policy of paying all of its earnings as dividends.
- Investors have identical subjective probability distributions of operating income for each company.

- The operating income is not expected to grow or decline over time.
- A firm can change its capital structure almost instantaneously without incurring transaction costs.

Capitalisation and Capital Structure

Capitalisation refers to the total amount of long-term funds employed by the firm. Capital structure signifies the kinds of securities and their proportion in the total capitalisation of a firm.

Capital structure and financial structure

The term capital structure differs from financial structure. Financial structure refers to the way the firm's assets are financed. In other words, it includes both, long-term as well as short-term sources of funds. Capital structure is the permanent financing of the company represented primarily by long-term debt and shareholders' funds but excluding all short-term credit. Thus, a company's capital structure is only a part of its financial structure.

Factors influencing capital structure

(1) Internal

(i) **Cost of capital:** The current and future cost of each potential source of capital should be estimated and compared.

(ii) **Risk:** Debt securities increase the risk, while equity securities reduce it. Risk can be measured to some extent by the use of ratio, measuring gearing and times-interest earned.

(iii) **Dilution of value:** A company should not issue any shares which will have the effect of removing or diluting the value of the shares by the existing shareholders.

(iv) **Acceptability:** A company can borrow only if investors are willing to lend. Few companies can afford the luxury of the capital structure which is unacceptable to financial institutions.

(v) **Transferability:** Many companies put their securities for quotation on the stock exchange quotations and improve the transferability of shares.

(vi) **Matching fluctuating needs against short-term source:** Where needs are fluctuating, a firm may prefer to borrow short-term loans from commercial banks.

(vii) **Increasing owner's profits:** Profits of the owners can be increased by relying more and more on debt financing.

(viii) **Surrender operational control:** Equity stock may result in a possible increase of operational control in an enterprise.

(ix) **Future flexibility:** A firm generally maintains a balance to ensure future flexibility in the capital structure.

(2) External

(i) **General level of business activity:** Where the overall level of business activity is rising, a firm would want to expand its operations.

(ii) **Level of interest rates:** If rates become excessive, firms will delay debt financing.

(iii) **Level of stock prices.**

(iv) **Availability of funds in the money market:** The availability of funds in the money market affects a firm's ability to offer debt and equity securities.

(v) **Tax policy on interest and dividends:** Although each management makes its own decisions on its capital sources, there are certain general factors which seem to influence the overall capital structure.

General

- **Size of business and character of capital requirements:** New and big firms are conservatively financed. But they are likely to issue new securities to the public. If an enterprise is especially successful, it grows rapidly and may issue bonds and preferred stock without diluting equity stock interest.
- **Growth age and size of firm:** In the early years of rapid development, equity capital and short-term growth are

principal source. As earnings improve, re-invested lending's and long-term debt constitute additional capital.

As a firm grows in size, the rate of its internal expansion declines and retained earnings replace the sources of the bonded debts, probably through sinking fund payments.

- **Operational characteristics:** Business differs in their operational characteristics and their need for funds. Merchandising firms operate on a small margin of gross profit, mainly with current assets. Public utilities, on the other hand, have small gross incomes relative to their capital, and require extensive capital.
- **Continuity of earnings:** The earnings of some individual companies are fairly regular, though many of them suffer from changes in economic conditions. The capital structure of all firms in the industries should be more conservative than that of industries which are stable.
- **Flexibility:** The nature of the capital structure is influenced by a struggle to maintain managerial control. If a wise dispersal of ownership is desired, a firm will save additional stocks.
- **Financial leverage:** Unfavourable financial leverage indicates a low level of profitability and makes borrowings more costly than the returns on investment. It is difficult for a firm to issue additional stock when profits are low. The only alternative for the firm is to raise profits and improve its financial leverage.
- **Market price of equity stock:** Equity shareholders usually view additional debt as a risk-increasing measure. It may also be interpreted in terms of a favourable financial leverage. If the overall cost of capital is low equity stockholders may assume that the firm cannot afford to pay a higher cost of capital and that its projects may, therefore, earn low rates of return.
- **Corporate taxation:** Corporate taxes have several effects on capital structure. Interest charges are tax deductible. The use of debt securities thus provides a lower cost of financing than preferred stock or equity securities. The level of taxes affects

the cost of capital, for the lower cost of debt resulting from tax leverage reduces the overall cost of capital.

OPTIMUM CAPITAL STRUCTURE

A capital structure is governed by certain basic laws. These are: (i) The more current the asset or liability, the more sensitive is the response to changes in the volume of output. (ii) Operating capital includes deferred charges and fixed plant and equipment, net of depreciation reserves. (iii) A change in the efficiency of the use of operating capital does not by itself create or destroy operating capital requirements when there are changes in the volume of operations.

The optimum capital structure may be defined as the relationship of debt and equity securities which maximizes the value of a firm's equity stock. It may exist under three situations:

1. The total value of the firm V_m is maximum when its equity stock is at the maximum value. It should be remembered that debt and preferred stock are not affected by fluctuations in market values because they offer a fixed return and their values, therefore, fluctuate with the level of interest rates and preferred stock yield.
2. The equity stock value should be maximized on a per-share basis so as to ensure to optimum capital structure. The total value of equity stock may be increased by the issue of additional shares.
3. The optimum capital structure occurs when a firm's overall cost of capital (Ke) is at its lowest point. There is, thus a link between the cost of capital and the optimum capital structure. The latter may be expressed in the following formula:

   $V_m(\max)=D_m+P_m+E_m(\max)$

Where,

V_m= Total market value of the firm (maximum)

D_m= Value of the firm's debt

P_m= Value of the firm's preferred stock

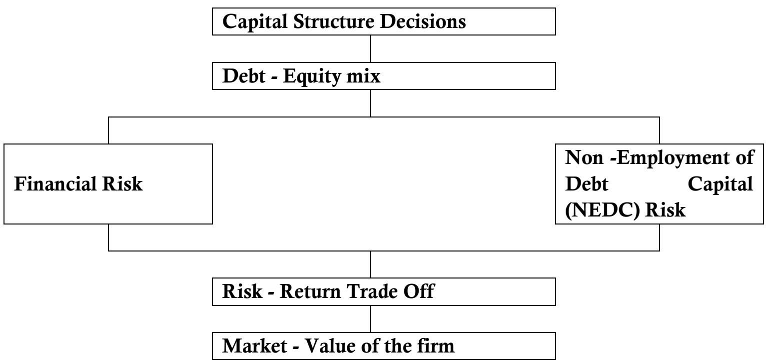
E_m= Value of the firm's equity stock (maximum)

RISK-RETURN TRADE OFF

The financial or capital structure decision of a firm to use a certain proportion of debt or otherwise in the capital mix involves two types of risks:

(i) **Financial Risk:** The financial risk arises on account of the use of debt or fixed interest bearing securities in its capital. A company with no debt financing has no financial risk.
The extent of financial risk depends on the leverage of the firm's capital structure. The financial risk also implies the variability of earnings available to equity share holders.

(ii) **Non-Employment of Debt Capital risk:** If a firm does not use debt in its capital structure, it has to face the risk arising out of non-employment of debt capital. This risk has an inverse relationship with the ratio of debt in its total capital. Higher the debt-equity ratio or the leverage, lower is the non-employment of debt capital risk and vice-versa.



PATTERNS OF CAPITAL STRUCTURE

In case of new company the capital structure may be of any of the following four patterns:

(i) Capital structure with equity shares only;
(ii) Capital structure with both equity and preference shares;
(iii) Capital structure with equity shares and debentures; and
(iv) Capital structure with equity shares, preferences shares and debentures.

The choice of an appropriate capital structure depends on a number of factors such as the nature of the company's business, regularity of earnings, conditions of the money market, attitude of the investor, etc.

Theories of capital structure

There are four major theories/approaches explaining the relationship between capital structure, cost of capital and value of the firm:

1. Net Income (NI) Approach
2. Net Operating income (NOI) Approach
3. Modigilani-Miller (MM) Approach, and
4. Traditional Approach

Assumptions

- (i) The firm employs only two types of capital-debt and equity. There are also no preference shares.
- (ii) There are no corporate taxes. This assumption has been removed later.
- (iii) The firm pays 100% of its earnings as dividend. Thus, there are no retained earnings.
- (iv) The firm's total assets are given and they do not change. The investment decisions are assumed to be constant.
- (v) The firm's total financing remains constant. The firm can change its capital structure either by redeeming the debentures by issue of shares or by raising more debt and reduce the equity share capital.
- (vi) The operating earnings are not expected to grow.
- (vii) The business risk remains constant and is independent of capital structure and financial risks.
- (viii) All investors have the same subjective probability distribution of the future expected operating earnings for a given firm.
- (ix) The firm has a perpetual life.

1. Net Income (NI) Approach

This approach has been suggested by Durand. According to this approach, capital structure decision is relevant to the valuation of thee firm. A change in the capital structure causes a corresponding change in the overall cost of capital as well as the total value of the firm. This approach highlights higher debt content in the capital structure will result in decline in the overall or weighted average cost of capital.

This will cause increase in the value of the firm and consequently increase in the value of equity shares of the company. Reverse will happen in a converse situation.

The assumptions of this approach are:

1. There are no corporate taxes.
2. The cost of debt is less than cost of equity or equity capitalisation rate.
3. The use of debt does not alter the risk perceptions of investors.

The value of the firm on the basis of NI approach can be ascertained as follows: V=S+D

V= Total market value of the firm

S= Market value of equity shares

$$= \frac{\mathbf{NetIncome}}{\mathbf{Equitycapitalizationrate}}$$

D= Market value of debt

The overall cost of capital or weighted average cost of capital is calculated as under

$$\mathbf{Ko} = \frac{\mathbf{EBIT}}{\mathbf{V}}$$

2. Net Operating Income (NOI) Approach

This approach was also suggested by Durand. This is opposite of Net income Approach.

According to this approach, the market value of the firm is not at all affected by the capital structure changes. The market value of the firm is ascertained by capitalizing the net operating income at the overall cost of capital, which is considered to be constant. The market value of equity is ascertained by deducing the market value of the debt from the market value of the firm.

Assumptions: This approach is based on the following assumptions:

1. The overall cost of capital remains constant for all degrees of debt- equity mix or leverage.
2. The market capitalizes the value of the firm as a whole and therefore, the split between debt and equity is not relevant.
3. The use of debt having low cost increases the risk of equity shareholders, this result in increase in equity capitalization rate.
4. There are no corporate taxes.

Value of the firm

According to the NOI Approach, the value of the firm (V) can be determined by the following equation:

$$\mathbf{V} = \frac{\textbf{Net Operating Income (EBIT)}}{\textbf{Overall Cost of Capital (Ke)}}$$

Market value of equity shares is ascertained by deducting the value of debt from the total value of the firm.

S = V - D

Where,

S= Market value of equity shares

V= Value of the firm

D= Market value of debt

Changes in the cost of equity capital

The equity capitalisation rate/cost of equity capital increases with the degree of leverage. The increase in the proportion of debt in the capital structure relative to equity shares would lead to an increase in the financial risk to the ordinary shareholders. To compensate for the increased risk, the shareholders would expect a higher rate of return on their investments. The increase in the equity-capitalisation rate would match the increase in the debt-equity ratio.

Cost of Debt

The cost of debt has two parts: (a) Explicit cost which is represented by the rate of interest. Irrespective of the degree of leverage, the firm is assumed to be able to borrow at a given rate of interest. This implies that the increasing, proportion of debt in the financial structure does not affect the financial risk of the lenders and they do not penalize the firm by charging higher interest; (b) Implicit or 'hidden' cost.

As shown in the assumption relating to the changes in cost of equity capital, increase in the degree of leverage or the proportion of debt to equity causes an increase in the cost of equity capital. This increase in cost of equity being attributable to the increase in debt is the implicit part of cost of debt.

Thus, the advantage associated with the use of debt, supposed to be a 'cheaper' source of funds in terms of the explicit cost, is exactly neutralized by the implicit cost represented by the increase in cost of equity. As a result, the real cost of debt and the real cost of equity, according to the NOI Approach, are the same and equal to capitalisation rate.

3. Traditional Approach

Net income and Net Operating Income Approach represent two extremes. According to NI approach, the debt content in the capital structure affects both the overall cost of capital and total valuation of the firm while NOI approach suggests that capital structure is totally irrelevant so far as total valuation of the firm is concerned. The MM approach supports the NOI approach. The traditional approach or the intermediate approach is a mid-way between the two approaches. It partly contains features of both the approaches as given below:

1. The traditional approach is similar to NI approach to the extent that it accepts that the capital structure or leverage of the firm affects the cost of capital and its valuation. It does not subscribe to the NI approach that the value of the firm will necessarily increase with all degree of leverages.
2. It subscribe to the NOI approach that beyond a certain degree of leverage, the overall cost of capital increases resulting in decrease in the total value of the firm.

The essence of the Traditional Approach lies in the fact that a firm through judicious use of debt-equity mix can increase its total value and thereby reduce its overall cost of capital. This is because debt is relatively a cheaper source of funds as compared to raising money through shares because of tax advantage.

4. Modigliani and Miller Position

The Modigliani-Miller approach is similar to the Net Operating Income (NOI) approach. According to this approach, the value of a firm is independent of its capital structure. There is a basic difference between the two. The NOI approach is purely definitional or conceptual. It does not provide operational justification for irrelevance of the capital structure in the valuation of the firm.

While MM approach supports the NOI approach providing behavioural justification for the independence of the total valuation and the cost of capital of the firm from its capital structure. MM approach maintains that the average cost of capital does not change with change in the debt weighed equity mix or capital structure of the firm.

Basic Propositions

1. The overall cost of capital and the value of firm are independent of the capital structure.
2. The cost of equity is equal to capitalization rate of a pure equity stream plus a premium for the financial risk. The

financial risk increases with more debt content in the capital structure.

3. The cut-off rate for investment purposes is completely independent of the way in which an investment is financed.

Assumptions

1. **Perfect capital Market:** This means
   (i) Investors are free to buy and sell securities;
   (ii) The investors can borrow without restriction on the same terms on which the firm can borrow;
   (iii) The investors are well informed;
   (iv) The investors behave rationally; and
   (v) There are no transaction costs.
2. **Rational investors and Managers:** Investors rationally choose a combination of risk and return that is most advantageous to them. Managers act in the interest of shareholders.
3. **Homogeneous Expectations:** Investors hold identical expectations about future operating earnings.
4. **Equivalent Risk Classes:** Firms can be grouped into 'equivalent risk classes' on the basis of their business risk.
5. **Absence of Taxes:** There is no tax.

   MM hypothesis based on the idea that no matter how to divide up the capital structure of a firm among debt, equity and other claims, there is a conservation of investment value. That is, because the total investment value of a corporation depends upon its underlying profitability and risk. It is with respect to relative changes in the firm's financial capitalization.

Thus, the total pie does not change as it is divided into debt, equity, and other securities. The sum of the parts must equal the whole; so regardless of financing mix, the total value of the firm stays the same.

Arbitrage process

The 'arbitrage process' is the operational justification of MM hypothesis. It refers to an act of buying an asset or security in one market having lower price and selling it in another market at a higher price. The consequence of such action is that the market prices of the securities of the two firms exactly similar in all respects except in their capital structures cannot for long remain different in different markets. Thus, arbitrage process restores equilibrium in value of securities.

This is because in case the market value of the two firms, which are equal in all respects except their capital structures, are not equal investors of the overvalued firm would sell their shares, borrow additional funds on personal account and invest in the undervalued firm in order to obtain the same return on smaller investment outlay. The use of debt by the investor for arbitrage is termed as 'home made' or 'personal leverage'.

Criticisms of MM Theory

The leverage irrelevance theorem of MM is valid if the perfect market assumptions underlying their analysis are satisfied. The real world, however, is characterized by various imperfections:

- Firms are liable to pay taxes on their income. In addition, investors who receive returns from their investments in firms are subject to taxes at a personal level.
- Bankruptcy costs can be quite high.
- Agency costs exist because of the conflict of interest between managers and shareholders and between shareholders and creditors.
- Managers seem to have a preference for a certain sequence of financing.
- Informational asymmetry exists because managers are better informed than investors.
- Personal leverage and corporate leverage are not perfect substitutes.

TAXATION AND CAPITAL STRUCTURE

Corporate Taxes

MM have recognized that capital structure would affect the cost of capital and value of the firm when there are corporate taxes. If a firm uses debt in its capital structure, the cost of capital will decline and market value will increase.

This is because the deductibility of interest charges for computation of tax. In other words, interest charges are allowed as a deduction in the computation of income tax. Therefore, even if the EBIT of two firms, the levered and unlevered are equal, the levered firm can have more earnings to its equity shareholders than an unlevered firm. This makes debt financing advantageous and value of the levered firm will be higher than that of the unlevered firm. A firm can achieve optimum capital structure by maximizing debt financing.

According to the MM approach, the value of an unlevered firm can be calculated as follows:

$$\textbf{Value of unlevered firm, Vu} = \frac{\textbf{EBIT}}{\textbf{Ke}}(\mathbf{1-T})$$

Where:

EBIT= Earnings Before Interest and Taxes T= Tax rate K_e= Cost of equity

$$\mathbf{VL = Vu + (T \times D)}$$

Value of levered firm= Value of unlevered firm+ (Tax rate* Debt)

CAPITAL STRUCTURE PLANNING

Capital structure refers to the composition of long –term sources finance. Companies have to plan their capital structure. It involves deciding the proportion of various sources- equity share capital, preference share capital, retained earnings, term loans and debentures in the total capital of the firm. It helps to ensure sufficient utilization of funds and magnify the return to equity shareholders. It also helps a firm to adapt to changing business conditions. A company should aim at an optimum capital structure, which maximizes the market value of shares or minimizes the overall cost of capital.

ESSENTIAL FEATURES OF A SOUND/OPTIMAL CAPITAL MIX

A sound or an appropriate capital structure should have the following features:

(i) Maximum possible use of leverage.

(ii) The capital structure should be flexible so that it can be easily altered.

(iii) To avoid undue financial/business risk with the increase of debt.

(iv) The use of debt should be within the capacity of firm. Te firm should be in a position to meet its obligations in paying the loan and interest charges as and when due.

(v) It should involve minimum possible risk of loss of control.

(vi) It must avoid undue restrictions in agreement of debt.

(vii) It should be easy to understand and simple to operate to the extent possible.

(viii) It should minimize the cost of financing and maximize earnings per share.

FACTORS DETERMINING THE CAPITAL STRUCTURE

The capital structure of a concern depends upon a large number of factors such as leverage or trading on equity, growth of the company, nature and size of business, the idea of retaining control, flexibility of capital structure, requirements of investors, costs of floatation of new securities, timing of issue, corporate tax rate and the legal requirements.

1. **Financial Leverage or Trading on Equity:** The use of long-term fixed interest bearing debt and preference share capital along with equity share capital is called financial leverage or trading on equity. The use of long-term debt increases, magnifies the earnings per share if the yields a return higher than the cost of debt.

The earnings per share also increase with the use of preference share capital but due to the fact that interest is allowed to be deducted while computing tax, the leverage impact of debt is much more. However, leverage can operate adversely also if the rate of interest on long-term loans is more than the expected rate of earnings of the firm.

2. **Growth and Stability of Sales:** The capital structure of a firm is highly influenced by the growth and stability of its sales. If the sales of a firm are expected to remain fairly stable, it can raise a higher level of debt. Stability of sales ensures that the firm will not face any difficulty in meeting its fixed commitments of interest payment and repayments of debt.
3. **Cost of Capital:** Cost of capital refers to the minimum return expected by its suppliers. The capital structure should provide for the minimum cost of capital. The main sources of finance for a firm are equity, preference share capital and debt capital. The return expected by the suppliers of capital depends upon the risk they have to undertake.
4. **Risk:** There are two types of risk that are to be considered while planning the capital structure of firm viz; (i) business risk and (ii) financial risk. Business risk refers to the variability of earnings before interest and taxes. It can be internal as well as external. Internal risk is caused due to improper product mix, non-availability of raw materials, incompetence to face competition, absence of strategic management etc. It is associated with the efficiency with which a firm conducts its operations within the broader environment thrust upon it. External business risk arises due to change in operating conditions caused by conditions thrust upon the firm which are beyond its control.

Financial risk refers to the risk of a firm that may not be able to cover its fixed financial costs. It is associated with the capital structure of a company. A company with no debt financing has no financial risk. The extent of financial risk depends on the leverage of the firm's capital structure. When a firm uses more and more of debt in its capital mix the financial risk of the firm increases.

5. **Cash Flow Ability to Service Debt:** Debt financing implies burden of fixed charge due to the fixed payment of interest and the principal. Whenever a firm wants to raise additional funds, it should estimate, project its future cash inflows to ensure the coverage of fixed charges.
6. **Nature and Size of a Firm:** Nature and size of a firm also influence its capital structure. All public utility concern has different capital structure as compared to other manufacturing concern. Public utility concerns may employ more of debt because of stability and regularity of their earnings.
7. **Control:** When the firm requires additional funds, the management of the firm wants to raise the funds without any loss of control over the firm. In case the funds are raised through the raised through the issue of equity shares, the control of the existing shareholders is diluted. Hence, they might raise the additional funds by way of fixed interest bearing debt and preference share capital.
8. **Flexibility:** Capital structure of a firm should be flexible, i.e., it should be such as to be capable of being adjusted according to the needs of the changing conditions. It should be possible to raise additional funds, whenever the need be, without much of difficulty and delay.
9. **Requirements of Investors:** It is necessary to meet the requirements of both institutional as well as private investors when debt financing is used. Investors are generally classified under three kinds, i.e. bold investors, cautious investors and less cautious investors. Bold investors are willing to take all types of risk, are enterprising in nature, and prefer capital gains and control and hence equity share capital is best suited to them. Investors who are over-cautious and conservative prefer safety of investment and stability in returns and hence debentures would satisfy such overcautious investors.

Investors which are less cautious in approach will prefer preference share capital which provides stability in returns.

10. **Capital Market Conditions:** Capital market conditions do not remain the same forever. Sometimes there may be depression while at other times there may be boom in the market. The choice of the securities is also influenced by the market conditions. Proper timing of issue of securities also saves in costs of raising funds.
11. **Asset Structure:** The liquidity and the composition of assets should also be kept in mind while selecting the capital structure. If fixed assets constitute a major portion of the total assets of the company, it may be possible for the company to raise more of long term debts.
12. **Purpose of Financing:** If funds are required for a productive purpose, debt financing is suitable and the company should issue debentures as interest can be paid out of the profits generated from the investment.
13. **Period of Finance:** The period for which the finances are required is also an important factor to be kept in mind while selecting an appropriate capital mix.
14. **Cost of Flotation:** The cost of floating a debt is generally less than the cost of floating equity and hence it may persuade the management to raise debt financing. The cost of floating an equity and hence it may persuade the management to raise debt financing. The costs of floating as a percentage of total funds decrease with the increase in size of the issue.
15. **Personal Considerations:** The personal considerations and abilities of the management will have the final say on the capital structure of a firm. Managements which are experienced and are very enterprising do not hesitate to use more of debt in their financing as compared to the less experienced and conservative management.
16. **Corporate Tax Rate:** High rate of corporate taxes on profits compel the companies to prefer debt financing, because interest is allowed to be deducted while computing taxable

profits. On the other hand, dividend on shares is not an allowable expense for that purpose.

17. **Legal requirements:** The Government has also issued certain guidelines for the issue of shares and debentures. The legal restrictions are very significant as these lay down a framework within which capital structure decision has to be made.

PRINCIPLES OF CAPITAL STRUCTURE DECISIONS

The capital structure decisions are influenced by a variety of factors. The main principles of capital structure decision are as follows:

1. Cost principle
2. Risk principle
3. Control principle
4. Flexibility principle 5.Timing principle

All these principles have already explained while discussing factors determining the capital structure.

CHANGES IN CAPITALISATION OR CAPITAL STRUCTURE

Changes in capitalisation may be sought as a means of easing tension and giving corporation a better opportunity to pursue its purpose. Adjustment in capital structure may also be necessitated to facilitate expansion, growth, revision, recapitalization and re-organisation, etc. The changes in the capitalisation scheme may either be voluntary or compulsory and may be implemented either in the form of recapitalization or readjustment of capital structure.

1. **Restructuring the Financial plan:** If the financial structure of a company has become top heavy with fixed cost bearing securities resulting into a great strain on the financial position of the company, the company may readjust its capital structure by redeeming the preference shares or debentures out of the proceeds of new issue of equity shares. This leads to reduce the strain and restore the balance in the financial plan.

2. **Simplifying the Capital Structure:** When a company has issued a variety of securities at different points of time to raise funds at difficult terms, it may need to consolidate such securities to simplify the financial plan as and when the market conditions are favourable.
3. **Suitable to investor's need:** A company may have to change capitalisation to suit the needs of its investors. The companies, often, resort to split of its shares to make theses more attractive especially when the market activity in the company's shares is limited due to high face value and wide fluctuations in its market prices.
4. **Fund to current liabilities:** When the company feels that the working capital is on permanent basis, the company would prefer to convert their short-term obligations into long-term by taking advantage of favourable market conditions.
5. **Write off the deficit:** In case the company is performing well and book value of its assets is over-valued as compared to their real worth or when there are accumulated losses, it is better for the company to reorganize its capital by reducing book value of its liabilities and assets to their real values, such reorganization is also necessitated.
6. **Capitalising the Retained Earnings:** Changes in capitalisation may take place due to capitalisation of retained earnings by the issue of bonus shares. To avoid over-capitalisation, maintain a balance between preference shares and equity shares, and equity shares and debentures; a company may prefer to issue bonus shares out of its accumulated profits and resources without affecting their liquidity.
7. **Clearing default on fixed cost securities:** When a company has not been able to pay fixed dividends to its preference shareholders and the same have been accumulating or when preference shares are due for redemption and the company does not have necessary funds to pay for the same, the

company may prefer to issue new shares in lieu thereof resulting in a change in its capitalisation.

8. **Facilitating Merger and Expansion:** To facilitate merger and expansion, the intending companies may be required to readjust capital structure. Such a change is generally required to equate the shares of different companies.
9. **Funding to accumulated dividend:** If a company has not been able to pay fixed dividends to its preference shareholders and the same have been accumulating or when preference shares due for redemption and the company does not have necessary funds to pay for the same, the company may prefer to issue new shares in lieu thereof resulting in a change in its capitalization.
10. **Meeting the legal requirements:** Changes in capitalization may also be necessitated to meet the changes in various legal requirements as and when those take place.

FINANCIAL DISTRESS AND CAPITAL STRUCTURE (BANKRUPTCY AND AGENCY COSTS)

When a firm uses more and more of debt in its capital mix the financial risk of the firm increases. It may not be able to pay the fixed interest to the suppliers of debt and they may force the firm to liquidate. The firm runs into the cost of financial distress and bankruptcy.

The firm using more of equity may not have to face such bankruptcy cost because it may not pay dividends to the shareholders in absence of sufficient profits. The bankruptcy costs include the direct costs of litigation and the cost of managing the firm in liquidation. The use of debt provides tax benefit to the firm but the bankruptcy costs work against the extreme advantage of leverage. Thus, an optimal capital structure has to take into consideration the benefits and costs of using debt. Further, when a firm raises debt the suppliers of debt put restrictive conditions in the loan agreement resulting into lesser freedom to the management in decision-making called agency costs.

This costs increase with the increase of debt in the capital mix as more and more restrictions are put by the providers of debt so as to secure their investments in the firm.They may provide increased debt even at a higher rate of interest. Thus highly leveraged firm has more of agency costs as compared to a low geared firm.

CONCLUSION

The capital structure theories explain the theoretical relationship between capital structure, overall cost of capital and valuation. The four important theories assist the firm and a firm should select such a financing-mix which maximises its value. Such a capital structure is called as optimum capital structure.

REVIEW QUESTIONS

1. Differentiate ‘Capitalization’ and ‘Capital structure’.
2. What do you mean by optimum capital structure? Explain the factors determining optimum capital structure.
3. Write a short note on Arbitrage Process.
4. What do you mean by appropriate capital structure? Discuss the features of an appropriate capital structure.
5. How will a firm go about determining its optimal capital structure?
6. Explain briefly the relationship between capital structure and the value of the firm.
7. What are the main propositions of the traditional approach?
8. Discuss the implications of corporate taxes for firm valuation?
9. What are the costs of financial distress?
10. Discuss the important approaches to the different theories of capital structure.

UNIT II - (E)

CAPITAL STRUCTURE DECISION

Objectives

- ❖ To illustrate the EBIT-EPS analysis as an approach to design capital structure.
- ❖ To get more about capital structure theories through the solved problems.
- ❖ To know the point of indifference and coverage ratio.

This chapter discusses different kinds of analyses helpful in choosing the capital structure, explores for capital structure decision, and examines capital structure policies in practice. The key factors governing the capital structure decisions are (i) Profitability aspect, (ii) liquidity aspects, (iii) control, (iv) leverage ratios in industry,(v) nature of industry,(vi) consultation with investment banks/lenders,(vii) commercial strategy,(viii) timing,(ix) company characteristics and (x) tax planning

PROFITABILITY ASPECT

EBIT-EPS ANALYSIS

EBIT-EPS analysis is an approach for selecting capital structure that maximizes earnings per share (EPS) over the expected range of earnings before interest and taxes. This analysis is useful for two reasons: (i) the EPS is a measure of a firm's performance-given the P/E ratio, the larger the EPS, the larger would be the value of a firm's shares; and (ii) given the importance of EPS and the function of the EBIT-EPS analysis to show the value of EPS under various financial alternatives at different levels of EBIT, the EBIT-EPS analysis information can be extremely useful to the finance manager in arriving at an appropriate financing decision.

Point of indifference

Point of indifference refers to the level of EBIT at which Earnings Per Share (EPS) or return on share capital is equal for different combinations of debt and equity. That is, at this level of EBIT, whatever the debt-equity mix, the EPS remains unchanged. It is also known as Break-even EBIT for alternative financial plans.

The point of indifference is calculated:

$$\frac{(\mathbf{X - I1})\ (\mathbf{1 - T}) - \mathbf{P.D}}{\mathbf{S1}} = \frac{(\mathbf{X - I2})\ (\mathbf{1 - T}) - \mathbf{P.D}}{\mathbf{S2}}$$

Where,

X= EBIT; I_1 = Interest under financial plan 1

T=Tax I_2= interest under financial plan 2

P.D= Preference dividend

S1= No. of equity shares or Equity share capital under plan 1

S2= No. of equity shares or Equity share capital under plan 2

Coverage Ratio

Apart from the EBIT-EPS analysis, the ability of a firm to use debt, from the profitability point of view, can also be judged in terms of a coverage ratio. Coverage ratio measures the size of interest payments relative to the EBIT to meet payment obligations. It measures the size of the interest payments relative to the EBIT. The reciprocal of this ratio measures the proportion of EBIT devoted to interest payments. The higher the coverage ratio, the greater is the certainty that the firm would be in a position to meet its obligations of interest payment. This ratio can be calculated, like the EPS, for various levels of EBIT. It provides a better picture of the firm's most likely EBIT to meet out specific commitments.

LIQUIDITY ASPECT

Cash Flow Analysis: Cash flow analysis evaluates the risk of financial distress. It yields a number of distinct advantages in the crucial task of setting debt policy: (i) it focuses on the solvency of the firm during adverse circumstances in contrast to EPS analysis which is concerned with the effects of leverage under normal circumstances; (ii) it takes into consideration the balance sheet changes and other cash flows that do not appear in the P&L account;(iii) it gives an insight into the inventory of financial resources available in the event of recession; and (iv) it views the problem in a dynamic context over time whereas EBIT/EPS and coverage analysis normally consider only a single year. This ratio measures the coverage of fixed financial charges to net cash inflows. It indicates the number of times the fixed financial requirements are covered by the net cash inflows. The greater the coverage ratio, the greater is the amount of debt that a firm can use.

- **Control:** The main object of the management is to maintain control, they will like to have a greater weight age for debt and preference shares in additional capital requirements, since by obtaining funds through them the management sacrifices little or no control.

However, it should be remembered that if the company borrows more than what it can service or repay, the creditors may seize the assets of the company to satisfy their claims. In that situation, the management would lose all control. It might be better to sacrifice a measure of control by some additional equity financing rather than run the risk of losing all control to creditors by employing too much debt.

- **Leverage Ratios for other firms:** The rationale of the use of industry standards is that debt-equity ratios appropriate for other firms in a similar line of business should be appropriate for the company as well. Industry standards provide a useful benchmark. If the firm is out of line, it is conspicuous in the market place. This does not necessarily imply that the firm's capital structure planning is inappropriate. It may well be possible that other firms may not be using appropriate debt-equity ratios. They may be more conservative or more aggressive risk-takers than desired.

- **Nature of Industry:** It is the most important elements in determining the degree of financial leverage a firm can carry safely without any risk of bankruptcy. If an industry's sales are subject to wide fluctuations, over a business cycle, the firm should have a low degree of financial leverage. Such firms will already have a high operating leverage. In case both are high, the total risk of the firm as determined by the combined leverage would become unduly high.
- **Consultation with investment bankers and lenders:** The opinions of prospective lenders and investors are likely to be very useful to the firm; it is they who will ultimately provide to the firm. Therefore, the type of securities which they will prefer to buy is very significant information for the financial manager and helps him in taking a decision regarding the form of securities to be used. It is imperative that if a financial decision is to contribute to the valuation of the firm, the finance manager must think in a way similar to that of investors.
- **Adjusting the sources of funds:** The firm's ability is to adjust its sources of funds in either direction-increase or decrease-in response to changes in the need for funds.

While designing the capital structure, the finance manager should not lose sight of the future impact on the present financial plan. Flexibility as to financing is important when future external financing will be necessary. There should be room for flexibility not only in obtaining funds but also in refunding them.

To provide the desired flexibility, the firm might incorporate a call provision as one of the covenants of the agreement with the suppliers of funds. It can be obtained only at a cost. When a finance manager achieves flexibility, it means that the party at the end of the transaction is foregoing something and for doing this would like to be compensated.

- **Timing of security issue:** The timing of the public offerings is also an important consideration in capital structure decisions of a firm. It should be made at a time when the state of the economy as well as the capital market is ideal to provide the funds. The timing analysis may suggest, for instance use of debt. But the company cannot go in for debt if its existing capital structure is already top-heavy with debt. Agreements with the existing lenders of the funds may impose certain other restrictions. Thus, timing in obtaining funds is exercised within limits imposed by the timing of needs for funds, the extent of flexibility, and existing explicit agreements, sometimes an implicit understanding, with lenders and owners.
- **Features of the company:** The features of a company in terms of size and credit standing, among others, also play a vital role in determining the share of senior securities and equity in its capital structure. The management's freedom of choice is extremely limited in the case of small and very large companies. Companies that are very small must rely, to a considerable degree, upon the owner's funds for their financing; they find it very difficult to obtain long-term debts. Investors think small firms are considered to be more risky than large firms; such firms do not have ready access to different types of funds from various sources.
- **Tax planning:** Tax planning is also a significant bearing on capital structure decisions. The choice of an appropriate debt policy involves a trade-off between tax benefits and the cost of financial distress. The greater the operating risk, the less is the debt the firm can use. The management should consider the implicit cost of the tax subsidy in using debt. The tax subsidy is valuable, but, to go too far in exploiting it can be costly.

SOLVED PROBLEMS

I) EBIT – EPS Analysis

Problem – 1:

XYZ company needs Rs. 5,00,000 for construction of a new plant. The following three feasible financial plans are:

1) Issue of 50,000 equity shares of Rs. 10 each
2) Issue of 15,000 equity shares of Rs. 10 each and 1,500 debentures of Rs. 100 each bearing 8% coupon rate of interest
3) Issue of 15,000 equity share of Rs. 10 each and 1,500 preference shares of Rs. 100 each bearing 8% rate of dividend

The profit before interest and taxes (PBIT) is expected to be Rs. 2,00,000. Corporate tax rate is 50%. Calculate the earnings per share under the three plans. Which plan would you recommend and why?

Solution:

EPS Under different plans

	Plan I Equity	Plan II Equity & Debt	Plan III Equity & Preference
	Rs.	**Rs.**	**Rs.**
Profit Before Interest & Taxes	2,00,000	2,00,000	2,00,000
Less: Interest 8% on 1,50,000	__	12,000	__
Profit Before Tax	2,00,000	1,88,000	2,00,000
Less : Tax at 50%	1,00,000	94,000	1,00,000
Profit After Tax	1,00,000	94,000	1,00,000
Less: Preference Dividend 8% on 1,50,000	__	__	12,000
Profit available to equity share holders (a)	1,00,000	94,000	88,000
No of equity shares (b)	50,000	15,000	15,000
Earnings per share (EPS) (a) / (b)	**2.00**	**6.27**	**5.87**

Earning per share is the highest under plan II. Hence plan II is recommended

Problem – 2:

SMAT Company Ltd has an all equity capital structure consisting of 60,000 equity share of Rs. 100 each. The management plans to raise Rs. 80 lakhs as expansion.

The three alternative methods of financing are:

1) Issue of 80,000 new shares of Rs. 100 each
2) Issue of 80,000 8% debentures of Rs. 100 each
3) Issue of 80,000 8% preference shares of Rs. 100 each

The expected EBIT is RS. 40 lakhs. Calculate the earnings per share. Assume a corporate tax rate of 50 per cent.

Solution:

EPS Under different financial plans

	Plan I Equity Financing	**Plan II Debt Financing**	**Plan III Preference Shares financing**
	Rs.	**Rs.**	**Rs.**
Earnings Before Interest and Taxes (EBIT)	40,00,000	40,00,000	40,00,000
Less: Interest on debentures 8% on Rs. 80,00,000	__	6,40,000	__
Earnings Before Tax	40,00,000	33,60,000	40,00,000
Less : Tax at 50%	20,00,000	16,80,000	20,00,000
Earnings After Tax	20,00,000	16,80,000	20,00,000
Less: Preference Dividend 8% on 80,00,000	__	__	6,40,000
Earnings available to equity share holders (a)	20,00,000	16,80,000	13,60,000
No of equity shares (b)	1,40,000	60,000	60,000
Earnings per share (EPS) (a) / (b)	**14.29**	**28**	**22.67**

<u>**Comments:**</u> Plan- II is having the highest EPS.

Problem 3:

Green ltd has an ordinary share capital of Rs. 50 lakhs consisting of 50,000 shares of Rs. 100 each. The management plan to raise another Rs. 40 lakhs for a major programme of expansion. The alternatives available are:

a) Entirely through ordinary shares
b) Rs. 10 lakhs through ordinary shares and Rs. 30 lakhs through long – term borrowings at 9 per cent interest per annum
c) Rs. 20 lakhs through ordinary shares and Rs. 20 lakhs through 5% preference shares

Green Ltd expects earnings before interest and taxes (EBIT) of Rs. 25 lakhs. Calculate the earnings per share in each alternative assuming a tax rate of 50%

Solution:

EPS Under different plans

	Plan A Equity	**Plan B Equity & Debt**	**Plan C Equity & Preference**
	Rs.	**Rs.**	**Rs.**
EBIT	25,00,000	25,00,000	25,00,000
Less: Interest on debentures 9% on Rs. 30,00,000	—	2,70,000	—
Earnings Before Tax	25,00,000	22,30,000	25,00,000
Less : Tax at 50%	12,50,000	11,15,000	12,50,000
Earnings After Tax	12,50,000	11,15,000	12,50,000
Less: Preference Dividend 5% on 20,00,000	—	—	1,00,000
Earnings available to equity share holders (a)	12,50,000	11,15,000	11,50,000
No of equity shares (b)	90,000	60,000	70,000
Earnings per share (EPS) (a) / (b)	**13.89**	**18.58**	**16.43**

Working Notes

Plan A = Existing Shares + New Shares = 50,000 + 40,000 = 90,000
Plan B = Existing Shares + New Shares = 50,000 + 10,000 = 60,000
Plan C = Existing Shares + New Shares = 50,000 + 20,000 = 70,000

Problem 4:

The following is the capital structure of a company

Equity shares of Rs. 100 each	Rs. 10,00,000
Reverse & Surplus	Rs. 4,00,000
9% Preference Shares	Rs. 6,00,000
7% Debentures	Rs. 5,00,000
Total Capital	Rs. 25,00,000

The company earns 12% on its total capital. The company plans to invest Rs. 15 lakhs in an expansion programme. The following are the alternatives are available:

Plan A: Issue of 10,000 equity shares at a premium of Rs. 25
Plan B: Issue of 10% preference shares
Plan C: Issue of 8% Debentures

The price earning ratios are estimated as follows: Plan A – 15; Plan B – 13; Plan C – 12. Evaluate the financing plans make your recommendation, assuming a corporate tax rate of 50%

Solution:

Calculation of EPS& Market Price

	Plan A	Plan B	Plan C
	Rs.	**Rs.**	**Rs.**
EBIT 12% on 40,00,000	4,80,000	4,80,000	4,80,000
Less: Interest on existing debentures at 7%	35,000	35,000	35,000
	4,45,000	4,45,000	4,45,000
Less: Interest on new debentures	__	__	1,20,000
Profit After Interest	4,45,000	4,45,000	3,25,000
Less : Tax at 50%	2,22,500	2,22,500	1,62,500
Profit After Tax	2,22,500	2,22,500	1,62,500

Less: Preference Dividend on existing preference shares	54,000	54,000	54,000
	1,68,500	1,68,500	1,08,500
Preference dividend on new preference shares 10%	__	1,50,000	__
Profit available to equity share holders (a)	1,68,500	18,500	1,08,500
No of equity shares (b)	20,000	10,000	10,000
Earnings per share (EPS) (a) / (b) **(1)**	8.43	1.85	10.85
P.E. Ratio **(2)**	15	13	12
Market Price **(1) * (2)**	**126.45**	**24.05**	**130.2**

Market Price is the maximum in Plan C. Hence, Plan C is recommended.

Problem – 5:

Preethi Ltd. is considering a major expansion of its production facilities. The following alternatives are available for financing.

	Alternatives (Rs. in lakhs)		
	A (Rs.)	**B (Rs.)**	**C (Rs.)**
Share Capital	30	13	7
14% Debentures	-	10	7.5
Loan from a financial institution @18% p.a	-	5	12.5

The company anticipates a return 25% before tax. The rate of dividend of the company is not less than 20%. The company at present has a low debt. Corporate taxation is 50%. Which of the alternatives would you advise?

Solution

Evaluation of Financing Alternatives (Rs. in lakhs)

	Plan A Rs.	Plan B Rs.	Plan C Rs.
Earnings before interest and tax : 25% on an investment of Rs. 30 lakhs	7.50	7.50	7.50
Less: Interest on debentures at14%	-	1.40	1.05
Less: Interest on loan at 18%	-	0.90	2.25
Earnings before tax	7.50	5.20	4.20
Less tax @ 50%	3.75	2.60	2.10
Earnings available to shareholders (a)	3.75	2.60	2.10
Share Capital (b)	30	13	7
Return on share capital (a) / (b)	12.5%	20%	30%

Plan C is having the highest return on share capital. Hence, Plan C is suggested for financing the expansion.

II) Point of indifference

Problem – 1:

A new project requires an investment of Rs. 500 lakhs. Two alternative methods of financing are under consideration.

1. Issue of equity shares of Rs.10 each for Rs. 500 lakhs
2. Issue of equity shares of Rs. 10 each for Rs. 300 lakhs and issue of 15% debentures for Rs. 200 lakhs.

Find out the indifference level of EBIT assuming a tax rate of 40%. Verify your answer.

Solution:

Indifference level of EBIT refers to the level at which the EPS (or return on share capital) under different financing plans are equal.

Indifference level of EBIT is calculated as under:

EPS under Plan 1 (Equity Financing) = **EPS Under Plan 2 (Equity + Debt Financing)**

$$\frac{(X - I1)(1 - T) - P.D}{S1} = \frac{(X - I2)(1 - T) - P.D}{S2}$$

Where,

X = EBIT	T = Tax Rate = 40% = 0.40
I1 = Interest under Plan 1 = 0	S1 = No. of equity shares under Plan 1 = 500 / 10 = 50 lakhs
I2 = Interest under Plan 2 15 % on 200 lakhs = 30 lakhs	S2 = No. of equity shares under Plan 2 = 300 / 10 = 30 lakhs
P.D = Preference dividend = 0	

Indifference level of EBIT

$$\frac{(X - 0)(1 - 0.40) - 0}{50} = \frac{(X - 30)(1 - 0.40) - 0}{30}$$

$$\frac{X(.6)}{50} = \frac{(X - 30)(.6)}{30}$$

$$\frac{.6X}{50} = \frac{.6X - 18}{30}$$

Cross Multiplication,

$$(.6X)\,30 = (.6X - 18)\,50$$

$$18X = 30X - 900$$

$$18X - 30X = -900$$

$$12X = 900$$

X = EBIT = 900 / 12 **= Rs. 75 lakhs**

Verification	Plan 1 (Rs.) in lakhs	Plan 2 (Rs.) in lakhs
EBIT	75	75
Less : Interest	-	30
EBT	75	45
Less : Tax @ 40%	30	18
Earnings available to share holders (a)	45	27
No. of Equity shares (b)	50	30
EPS (a) / (b)	**0.9**	**0.9**

Thus, when EBIT is Rs.75 lakhs, the earnings per share under plan 1 and plan 2 are equal.

Problem 2:

Sri Ltd, requires a capital investment of Rs. 12 crores. Interest on term loan is 12% and tax rate is 50%. The financial institutions insist on a debt – equity ratio of 2: 1.
Calculate the point of indifference.

Solution:

Two financing options are available.

Plan A - Issue of equity share for Rs. 12 crores

Plan B - Total investment Rs. 12 crores. Debt – equity ratio to be maintained is 2 : 1.

Hence, Debt = Rs. 12 * 2 / 3 = Rs. 8 crores

Equity = 12 * 1 / 3 = Rs. 4 crores

The indifference level refers to the level of EBIT at which EPS (or return on share capital) under Plan A and Plan B are equal.

EPS under Plan A **EPS Under Plan B**

$$\frac{(X - I1)(1 - T) - P.D}{S1} = \frac{(X - I2)(1 - T) - P.D}{S2}$$

Where,

X = EBIT	T = Tax Rate = 50% = 0.50
I1 = Interest under Plan A = 0	S1 = No. of equity shares under
I2 = Interest under Plan B	Plan A = Rs. 12 crores
12 % on 8 crores = 0.96 crores	S2 = No. of equity shares under
P.D = Preference dividend = 0	Plan B = Rs. 4 crores

Indifference level of EBIT

$$\frac{(X - 0)(1 - 0.50) - 0}{12} = \frac{(X - 0.96)(1 - 0.50) - 0}{4}$$

$$\frac{X(.5)}{12} = \frac{(X - 0.96)(.5)}{4}$$

$$\frac{.5X}{12} = \frac{.5X - 0.48}{4}$$

Cross Multiplication,

$$(.5X)\,4 = (.5X - 0.48)\,12$$

$$2X = 6X - 5.76$$

$$2X - 6X = -5.76$$

$$4X = 5.76$$

X = EBIT = 5.76 / 4 **= Rs. 1.44 crores**

When the EBIT is Rs. 1.44 crores, the earnings per share under plan A and plan B will be equal

Note: The number of equity shares could not be found from the given information. Hence equity share capital is used for S1 and S2 in the formula.

III) a) Net Income Approach

Problem 1:

Jerry Ltd is expecting an annual EBIT of Rs. 2,00,000 and the company has Rs. 3,00,000 in 10% debentures. The cost of equity capital or capitalisation rate is 12.5%

Calculate the total value of the firm and also ascertain the overall cost of capital.

Solution:

a) Value of firm, (v) = S + D

= Market value of equity + Market value of debt

Value of the firm	**Rs.**
EBIT	2,00,000
Less: Interest at 10%on Rs. 3,00,000	30,000
Earnings available to equity share holders (NI)	1,70,000
Equity capitalisation rate, (Ke) 12.5%	0.125
Market value of equity (S) = NI / Ke	13,60,000
Market value of Debt (D)	3,00,000
Value of the firm (V) = (S + D)	**16,60,000**

Note: Under the Net Income Approach, it is assumed that there are no taxes

b) Overall cost of capital (Ko) $= \dfrac{\text{EBIT}}{\text{Value of the firm (V)}}$

$= \dfrac{2,00,000}{16,60,000}$

$=$ **0.12 (or) 12%**

Problem 2:

Balu Ltd. expects an annual EBIT of Rs. 1,20,000. The company has Rs. 3,00,000 in 10% debentures. The equity capitalisation rate is 12.5%. The company proposes to issue additional equity shares of Rs. 1,20,000 and use the proceeds for redemption of debentures of Rs. 1,20,000. Calculate the Value of the firm (V) and the overall cost of capital (Ko)

Solution:

a) Value of the firm, (V) = S + D

= Market value of equity + Market value of debt

Value of the firm	**Rs.**
EBIT	1,20,000
Less: Interest on debentures (10% on 1,80,000)	
(3,00,000 - Redeemed, 1,20,000 = 1,80,000)	18,000
Earnings available to equity share holders (NI)	1,02,000
Equity capitalisation rate, (Ke) 12.5%	0.125
Market value of equity (S) = NI / Ke	8,16,000
Market value of Debt (D)	1,80,000
Value of the firm (V) = (S + D)	**9,96,000**

b) Overall cost of capital (Ko) $= \dfrac{\text{EBIT}}{\text{Value of the firm (V)}}$

$= \dfrac{1,20,000}{9,96,000}$

$=$ **0.12 (or) 12%**

III) b) Net Operating Income (NOI) Approach

Problem – 1:

Usha Ltd. has an EBIT Rs. 2,00,000 The cost of debt is 10% and the outstanding debt is Rs. 4,00,000. The overall capitalisation rate (Ko) is 12.5%

Calculate the total value of the firm (V) and equity capitalisation rate (Ke)

Solution:

$$\text{Market Value of the firm (V)} = \frac{\text{Net Operating Income}}{\text{Overall cost of capital}} = \frac{\text{EBIT}}{\text{Ko}}$$

$$\text{Market Value of the firm (V)} = \frac{2,00,000}{12.5\% \text{ (or) } 0.125} = 16,00,000$$

Less: Market value of Debt (D)	=	4,00,000
Market value of equity (S)	=	12,00,000

$$\text{Equity Capitalisation rate} = \frac{\text{Earnings available to equity shareholders}}{\text{Market value of equity}}$$

Earnings available to equity shareholders:

EBIT or Net Operating Income	2,00,000
Less : Interest 10% on 4,00,000	40,000
	1,60,000

$$\text{Equity Capitalisation rate (Ke)} = \frac{1,60,000}{12,00,000}$$

$$= 0.1333 \text{ (or) } 13.33\%$$

Problem 2:

James Ltd expects a net operating income of Rs. 60,000. It has Rs. 3,00,000, 6% debentures. The overall capitalisation rate is 10%. Calculate the value of the firm and cost of equity according to the Net Operating Income (NOI) Approach.

What will be the value of firm and cost of equity if debenture debt is increased to Rs. 5,00,000?

Solution:

Net Operating Income Approach

$$\text{Market Value of the firm (V)} = \frac{\text{Net Operating Income}}{\text{Overall cost of capital}} = \frac{\text{EBIT}}{\text{Ko}}$$

Market Value of the firm (V)	=	$\frac{60,000}{10\% \text{ (or) } 0.1}$	=	6,00,000
Less: Market value of Debt (D)			=	3,00,000
Market value of equity (S)			=	3,00,000

$$\text{Equity Capitalisation rate (Ke)} = \frac{\text{Earnings available to equity shareholders}}{\text{Market value of equity}}$$

Earnings available to equity shareholders:

EBIT or Net Operating Income	60,000
Less : Interest 6% on 3,00,000	18,000
	42,000

$$\text{Equity Capitalisation rate (Ke)} = \frac{42,000}{3,00,000}$$

$$= 0.14 \text{ (or) } 14\%$$

If debenture debt is increased to Rs. 5,00,000

$$\text{Market Value of the firm (V)} = \frac{\text{Net Operating Income}}{\text{Overall cost of capital}}$$

$$= \frac{\text{EBIT}}{\text{Ko}}$$

$$\text{Market Value of the firm (V)} = \frac{60{,}000}{10\% \text{ (or) } 0.1} = 6{,}00{,}000$$

The value of the firm remains unchanged when debt is increased

$$\text{Equity Capitalisation rate (or) Cost of equity (Ke)} = \frac{\text{Earnings available to equity shareholders}}{\text{Market value of equity}}$$

Earnings available to equity shareholders:

EBIT or Net Operating Income	60,000
Less : Interest 6% on 5,00,000	30,000
	30,000

Market Value of the firm (V)	= $\frac{60{,}000}{10\% \text{ (or) } 0.1}$ =	6,00,000
Less: Market value of Debt (D)	=	5,00,000
Market value of equity (S)	=	1,00,000

$$\text{Equity Capitalisation rate (or) Cost of equity (Ke)} = \frac{30{,}000}{1{,}00{,}000}$$

$$= 0.30 \text{ (or) } 30\%$$

When the proportion of debt had increased, cost of equity had also increased from 14% to 30%. But the overall cost of capital and value of the firm remain unchanged.

III) c) The Traditional Approach

Problem 1:

Compute the market value of the firm, market value of equity and the average cost of capital.

		Rs.
Net Operating Income		1,70,000
Total Investment		7,50,000
Equity Capitalisation rate:		
a) If the firm uses no debt	10%	
b) If the firm uses a debt of Rs. 3,00,000	11%	
c) If the firm uses a debt of Rs. 4,50,000	12%	

The debt of Rs. 3,00,000 can be raised at 5% rate of interest while debt of Rs. 4,50,000 can be raised at 7%

Solution:

Market Value of the firm, Value of Equity and Average Cost of Capital

		No Debt	5% Debentures	7% Debentures
1	Net Operating Income	1,70,000	1,70,000	1,70,000
2	Less : Interest (A)	-	15,000	31,500
3	Earnings available to equity share holders	1,70,000	1,55,000	1,38,500
4	Equity Capitalisation rate (Ke)	10% (.10)	11% (.11)	12% (.12)
5	Market value of shares (S) (3 / 4)	17,00,000	14,09,090.90	11,54,166.66
6	Add : Market Value of Debt (D)	-	3,00,000	4,50,000
7	Value of the firm (V = S + D)	17,00,000	17,09,090.90	16,04,166.66
8	Average cost of capital	1,70,000	1,70,000	1,70,000
	Ko = EBIT / V = NOI / V	17,00,000	17,09,090.90	16,04,166.66
		0.10 or 10%	**0.0994 or 9.94%**	**0.1059 or 10.59%**

III) d) Modigliani and Miller Approach / (M – M) Approach

Problem – 1:

Charles Ltd. has earnings before taxes and interest (EBIT) of Rs. 1,00,000. It expects a return on investment of 12%. Find out the value of the firm according to the Modigliani – Miller (M-M) approach.

Solution:

$$Value\ of\ the\ firm\ \mathbf{V} = \frac{\mathbf{EBIT}}{\mathbf{Ko}}$$

$$= \frac{\textbf{Earnings before Interest}\ \&\ Taxes}{\textbf{Overall cost of capital}}$$

$$= \frac{1,00,000}{12\%}$$

$$= \frac{1,00,000}{0.12}$$

V = Rs. 8,33,333.33

Problem – 2:

Two firms X and Y are identical in all respects except the degree of leverage. Firms X does not use any debt in its financing (unlevered). Firm Y has 6% debentures of Rs. 4,00,000 (levered). The firms have earnings before interest and tax (EBIT) of Rs. 1,00,000 and the equity capitalisation rate is 10%. Assuming the corporate tax at 40%, calculate the value of the firm using MM approach.

Solutions:

a) Value of Firm X which does not use any debt (Unlevered)

$$\mathbf{Vu} = \frac{\textbf{Profit available to equity shareholders}}{\textbf{Equity capitalisation rate}} = \frac{\mathbf{EAT}}{\mathbf{Ke}}$$

Profits available to equity shareholders		**Rs.**
As there is no debt EBT = EBIT	=	1,00,000
Less: Tax @ 40% on 1,00,000	=	40,000

Profits available to equity shareholders (EAT)	=	60,000
Equity Capitalisation rate, Ke = 10% or .10	=	0.1
Value of firm U = Vu = EAT / Ke		**6,00,000**

b) Value of firm Y which uses debt (Levered)

$$\mathbf{VL = Vu + (Tax\ rate\ \times Debt)}$$

= 6,00,000 + (.40 * 4,00,000)

= 6,00,000 + 1,60,000 = **Rs. 7,60,000**

Note:(Tax rate * Debt) represents the value of tax shield arising out of financial leverage (borrowings)

Interest on debentures = 6% on 4,00,000 = Rs. 24,000. It is admissible as expense for tax purposes. The tax benefits = 40% of 24,000 =Rs. 9,600. The present value of this tax shield (if debt is employed permanently)

$$= \frac{9{,}600}{6\%} = \frac{9{,}600}{.06} = \text{Rs. } 1{,}60{,}000$$

Value of Levered Firm (VL) = 6,00,000 (Vu) + 1,60,000 = **7,60,000**

Estimation of capital requirements for current and future needs is important for a firm. Equally important is the determining of capital mix. Equity and debt are the two principle sources of finance of a business. Capital structure planning, which aims at the maximisation of profits and the wealth of the shareholders, ensures the maximum value of a firm or the minimum cost of capital. It should be easy to understand and simple to operate to the extent possible and should minimise the cost of financing and maximise earnings per share. The management of a firm should try to reach as near as possible of the optimum point of debt and equity mix.

The above chapter gave an outlook to know the value of the firm, point of indifference, EBIT and EPS analysis and the capital structure decisions.

REVIEW QUESTIONS

1. Beni Ltd needs Rs.10,00,000 for construction of a new plant. The following three financial plans are feasible:
   (i) The company may issue 1,00,000 equity shares of Rs. 10 per share.
   (ii) The company may issue 50,000 equity shares at Rs. 10 per share and 5,000 debentures of Rs. 100 denomination bearing 8 per cent of interest.
   (iii) The company may issue 50,000 equity shares of Rs.10 per share and 5,000 preference shares of Rs.100 per share bearing, 10 per cent rate of dividend.

   If the company's earnings before interest and taxes are Rs. 80,000, and Rs.1,60,000, and Rs. 2,40,000 what are the earnings per share under each of the three financing plans? Which alternative would you recommend and why? Assume corporate tax rate of 35 per cent and P/E ratio of 10 times in equity plan, 9 times in equity+ preference plan and 8 times in equity + debt plan.
2. The Evershine Company has the choice of raising an additional sum of Rs. 25 lakh either by the sale of 10 per cent debentures or by issue of additional equity shares of Rs. 50 per share. The current capital structure of the company consists of 5 lakh ordinary shares. At what level of earnings before interest and tax (EBIT) after the new capital is required, would earnings per share (EPS) be the same whether new funds are raised by issuing ordinary shares or by issuing debentures? Also, determine the level of EBIT at which uncommitted earnings per share (UPES) would be the same if sinking fund obligations amount to Rs. 2,50,000 per year. Assume a 35 per cent tax rate. Discuss the relevance of the calculation.
3. Assume that there is no tax and given the earnings before interest and taxes (EBIT), interest (I) at 10 per cent and equity capitalisation rate (K_e) below, calculate the total market value of each firm.

Firms	EBIT (Rs.)	I (Rs.)	Ke (Per cent)
A	1,00,000	10,000	12
B	1,50,000	30,000	16
C	2,50,000	1,00,000	15
D	3,00,000	1,20,000	18

Also, determine the weighted average cost of capital for each firm.

4. From the following selected data determine the value of the firms X and Y belonging to the homogeneous risk class under (a) the NI approach, and (b) the NOI approach:

	Levered Firm P	Unlevered Firm Q
EBIT	Rs. 2,00,000	Rs. 2,00,000
Interest at 10%	50,000	
Equity-capitalisation Rate	15%	
Corporate Tax rate	50%	

Which of the two firms has an optimal capital structure under the (i) NI approach (ii) NOI approach?

5. Calculate the level of EBIT at which the EPS indifference point between the following financing alternatives will occur.
   (i) Equity share capital of Rs. 3,00,000 and 12% debentures of Rs.2,00,000
   (or)
   (ii) Equity share capital of Rs. 2,00,000, 14% preference share capital of Rs. 1,00,000 and 12% Debentures of Rs. 2,00,000.

   Assume the corporate tax rate is 35% and par value of equity share is Rs. 10 in each case.

UNIT III - (F)

DIVIDEND POLICY AND SHARE VALUATION

Objectives

- This chapter deals with the relationship between dividend policy and market price of equity shares.
- To discusses the various models in which investment and dividend decisions are related.
- To give the clear picture for the dividend policy and share valuation.

INTRODUCTION

Dividend refers to that portion of a firm's net earnings which are paid out to the shareholders. It is the reward of the shareholders for investments made by them in the shares of the company. The investors are interested in earning the maximum return on their investments and to maximize their wealth. Dividend policy of a firm thus affects both the long-term financing and the wealth of shareholders. As a result, the firm's decision to pay dividends must be reached in such a manner so as to equitably apportion the distributed profits and retained earnings. Since dividend is a right of shareholders to participate in the profits and surplus of the company for their investment in the share capital of the company, they should receive fair amount of the profits.

DIVIDEND DECISION AND VALUATION OF FIRMS

The value of the firm can be maximized if the shareholders' wealth is maximized. There are conflicting views regarding the impact of dividend decision on the valuation of the firm. The dividend policy must strike a happy balance between distribution and retention. It should allocate the earnings between dividends and retained earnings in such a way that the value of the firm is maximized. Hence, dividend policy is a very crucial area of financial management.

DIVIDEND THEORIES

There are conflicting opinions regarding the relationship between dividend decision and the value of the firm. The dividend theories can be classified into two groups:

1. **THE IRRELEVANCE CONCEPT OF DIVIDEND OR THE THEORY OF IRRELEVANCE:**
   A. **RESIDUAL APPROACH**: According to this theory, dividend decision has no effect on the wealth of the shareholders or the prices of the shares, and hence it is irrelevant so far as the valuation of the firm is concerned.
   This theory regards dividend decision merely as a part of financing decision because the earnings available may be retained in the business for re-investment.
   But, if the funds are not required in the business they may be distributed as dividends. Thus, the decision to pay dividends or retain the earnings may be taken as a residual decision. This theory assumes that investors do not differentiate between dividends and retentions by the firm. Their basic desire is to earn higher return on their investment. In case the firm has profitable investment opportunities giving a higher rate of return than the cost of retained earnings, the investors would be content with the firm retaining the earnings to finance the same. However, if the firm is not in a position to find profitable investment opportunities, the investors would prefer to receive the

earnings in the form of dividends. Thus, a firm should retain the earnings if it has profitable investment opportunities otherwise it should pay them as dividends.

B. MODIGLIANI AND MILLER APPROACH (MM MODEL)

Modigliani and Miller have expressed in the most comprehensive manner in support of the theory of irrelevance. They maintain that dividend policy has no effect on the market price of the shares and the value of the firm is determined by the earning capacity of the firm or its investment policy. The splitting of earnings between retentions and dividends, may be in any manner the firm likes, does not affect the value of the firm. As observed by M.M. "Under conditions of perfect capital markets, rational investors, absence of tax discrimination between dividend income and capital appreciation, given the firm's investment policy, its dividend policy may have no influence on the market price of the shares.

Assumptions of MM Hypothesis

The MM hypothesis of irrelevance of dividends is based on the following assumptions:

1. There are perfect capital markets.
2. Investors behave rationally.
3. Information is freely available.
4. There are no floatation and transaction costs.
5. No investor is large enough to affect the market price of shares.
6. There are either no taxes or there are no differences in the tax rates applicable to dividends and capital gains.
7. The firm has a rigid investment policy.
8. There is no risk or uncertainty in regard to the future of the firm.

The Argument of MM

The argument given by MM in support of their hypothesis is that whatever increase in the value of the firm results from the payment of dividend, will be exactly off set by the decline in the market price of shares because of external financing and there will be no change in the total wealth of the shareholders. For example, if a company is having investment opportunities, distributes all the company earnings among the shareholders, it has to raise additional funds from external sources. A shareholder gains on account of dividend payment is neutralized completely by the fall in the market price of shares due to decline in expected future earnings per share. The market price of a share in the beginning of a period is equal to the present value of dividends paid at the end of the period plus the market price of the shares at the end of the price.

Market price under M.M model:

The market price of a share at the beginning of a period (Po) is equal to the present value of dividends received at the end of the period plu the market price of the share at the end of the period.

P_o= Present value of dividends received + Market price of the share at the end of the period

This can be expressed as follows

$$\mathbf{Po} = \frac{\mathbf{1}}{(\mathbf{1}+\boldsymbol{ke})} (\boldsymbol{D}_1 + \boldsymbol{P}_1)$$

The value of P1 (market price at the end of the period) can be derived from the above equation.

$$\mathbf{P_1 = P_o\,(1+K_e)-D_1}$$

P_1= Market price per share at the end of the period

P_o= Current market price

K_e= Cost of equity capital

D_1= Dividend to be received at the end of the period.

Criticism of M.M Hypothesis

M.M argues that the dividend decision of the firm is irrelevant in the sense that the value of the firm is independent of it. The crux of their argument is that the investors are indifferent between dividend and retention of earnings. This is mainly because of the balancing nature of internal financing and external financing consequent upon distribution of earnings to finance investment programmes. The assumptions are not well founded. As the assumptions are unrealistic, the MM hypothesis lacks practical relevance.

- The M.M Model assumes perfect capital markets. But in practice capital market are not perfect.
- M.M assumes that there are no corporate taxes does not hold good. In the real world, there are corporate taxes.
- The model assumes that there are no floatation costs, but in actual practice floatation costs are incurred by companies for raising new debt or capital.
- Under this M.M assumption that there are no transaction costs is also not valid. Investors have to pay brokerage, service tax etc. on purchase and sale of securities.
- The firms are assumed to follow a fixed investment policy. But in practice firms do not follow any fixed investment policy.

1. RELEVANCE OF DIVIDENDS

In sharp contrast to the MM position, there are some theories that consider dividend decisions to be an active variable in determining the value of the firm. The dividend decision is, therefore, relevant. Critically examine the two theories are representing this notion. They are: (i) Walter's Model (ii) Gordon's Model

C. WALTER'S MODEL

Professor James. E. Walter argues that dividend policy is a critical factor and it affects the value of the firm. The investment policy of a firm cannot be separated from its dividends policy and both are interlinked. As per this model, dividend policy depends on the firm's internal rate of return (r) and cost of capital (k).

Walter's views on optimum dividend payout are as follows:

Growth Firms (r>k)

The firm would have an optimum dividend policy which will be determined by the relationship of r and k. In other words, if the return on investments exceeds the cost of capital, the firm should retain the earnings, whereas it should distribute the earnings to the shareholders in case the required rate of return exceeds the expected return on the firm`s investments. Hence, the growth firms can benefit by retaining all the earnings for internal investment (100% retention). The optimum payout would be zero. This would maximize the value of the shares of growth firms.

Normal Firms (r=k)

Normal firms do not have good investment opportunities. They are able to earn a rate of return (r) which is just equal to the cost of capital (k). Hence, distribution or retention of earnings will not make any difference in the value of the firm. It is a matter of indifference whether earnings are retained or distributed. This is so because for all dividend payout ratios the market price of shares will remain constant. For such firms, there is no optimum dividend policy.

Declining Firms (r<k)

Declining firm does not have profitable investment opportunities. The rate of return is less than the cost of capital. It is the advantages of the declining firms not to retain the earnings. The optimum payout is 100 per cent. This will maximize the value of shares of the declining firms.

Assumptions of Walter's Model

1. All financing is done through retained earnings: external sources of funds like debt or new equity capital are not used.
2. With additional investments undertaken, the firm's business risk does not change. It implies that r and k are constant.

3. There is no change in the key variables, namely beginning earnings per share, E, and dividends per share, D. The values of D and E may be changed in the model to determine results, but, any given value of E and D are assumed to remain constant in determining a given value.
4. The firm has perpetual life.

Formula

Walter has evolved a mathematical formula to arrive at the appropriate dividend decision. His formula is based on a share valuation model which states:

Market price per share,

$$\mathbf{P} = \frac{\mathbf{D} + \frac{\mathbf{r}}{\mathbf{ke}}(\mathbf{E}-\mathbf{D})}{\mathbf{ke}}$$

Where

D= Dividend ke = Cost of capital

r= Rate of return E= Earnings per share

Criticism of Walter's Model

1. The model assumes that a firm finances all its investments only through retained earnings. The assumption is unrealistic. Firms do raise funds through new debt and equity.
2. The assumption that the rate of return remains constant is also not true. In fact, the rate of return changes with increase in investment.
3. This model assumes that the cost of capital remains constant. But the cost of capital also changes because of the changes in risk. Hence, the assumption does not hold good.

D. GORDON'S MODEL

This model developed by Myron Gordon suggests that the dividend decision is relevant and it affects the value of the firm. Gordon's model explicitly relates the market value of the firm to dividend policy. The opinion of Gordon's model is:

Growth Firms (r>k)

For growth firms with profitable investment opportunities, market price of share increases when dividend payout is less. Hence growth firms should retain maximum earnings. The optimum payout is zero per cent.

Normal Firms (r=k)

For normal firms, the price per share is not affected by dividend policy. Hence there is no optimal dividend payout.

Declining Firms (r<k)

For declining firms, the market price of share increases when dividend payout increases. It is beneficial to distribute all the earnings. Optimum payout is 100 per cent.

Assumptions of Gordon's Model

1. The firm is an all-equity firm. No external financing is used and investment programmes are financed exclusively by retained earnings.
2. The rate of return on investment (r) is constant.
3. The cost of capital (k) also remains constant.
4. The retention ratio, once decided upon, is constant. Thus, the growth rate, (g=br) is also constant.
5. There are no corporate taxes and the firm has a perpetual life.

Gordon's Formula

According to this model, the market price of a share is equal to the present value of future stream of dividends.

$$\boldsymbol{P = \frac{E(1-b)}{ke-br}}$$

Where

P=Market price per share E= Earnings per share

D= Dividend per share b= Retention ratio

ke= Cost of capital r=Rate of return

g= Growth rate= b*r

Factors determining dividend Policy

The payment of dividend involves some legal as well as financial considerations. It is difficult to determine a general dividend policy which can be followed by different times because the dividend decision has to be taken considering the special circumstances of an individual case. The following are the important factors which determine the dividend policy of a firm:

1. **Legal requirements:** The provisions of the Companies Act are to be adhered in the formulation of dividend policy. As per these provisions, after providing the depreciation the dividends can be paid only out of current profits or past profits. Dividends cannot be paid out of capital.
2. **Age of the Company:** The age of the company also influences the dividend decision of a company. A newly established concern has to limit payment of dividend and retain substantial part of earnings for financing its future growth and development.
3. **Stability of Dividends:** It refers to the payment of dividend regularly given to the shareholders. It prefers payment of such regular dividends. A policy of constant dividend per share is most suitable to concerns whose earnings are expected to remain stable over a number of years or those who have built-up sufficient reserves to pay dividends in the years of low profits. The policy of constant payout ratio, i.e paying a fixed percentage of net earnings every year may be supported by a firm because it is related to the firm's ability to pay dividends.
4. **Government's Economic Policy:** The dividend policy of a firm has also to be adjusted to the economic policy of the Government as was the case when the Temporary Restriction on Payment of Dividend Ordinance force.
5. **Taxation Policy:** Taxation policy of the Government also affects the dividend decision of a firm. A high or low rate of business taxation affects the net earnings of company and their by its dividend policy. Similarly, a firm's dividend policy may be dictated by the income-tax status of its shareholders.

6. **Control Objectives:** The objective of maintaining control by the present management may also affect the dividend policy. Suppose a company is quite liberal in paying dividends, it may have to raise funds for expansion or diversification by the issue of new shares, its control will be diluted.
7. **Requirements of Institutional Investors:** Dividend policy of a company can be affected by the requirements of institutional investors such as financial institutions, banks insurance corporations, etc.
8. **Inflation:** This acts as a constraint in the payment of dividends. Profits as arrived from the profit and loss account on the basis of historical cost have a tendency to be overstated in times of rise in prices due to over valuation of stock-in-trade and writing off depreciation on fixed assets at lower rates. As a result, when prices rise, funds generated by depreciation would not be adequate to replace fixed assets, and hence to maintain the same assets and capital intact, substantial part of the current earnings would be retained.
9. **Liquid Resources:** The dividend policy of a firm is also influenced by the availability of liquid resources. Although, a firm may have sufficient available profits to declare dividends, yet it may not be desirable to pay dividends if it does not have sufficient liquid resources.
10. **Nature of Industry:** Nature of industry to which the company is engaged also considerably affects the dividend policy. Certain industries have a comparatively steady and stable demand irrespective of the prevailing economic conditions.
11. **Magnitude and Trend Earnings:** As dividends can be paid only out of present or past year's profits, earnings of a company fix the upper limits on dividends.

    It should be paid out of current year's earnings only as the retained earnings of the previous years become more or less a part of permanent investment in the business to earn current profits.

12. **Desire and Type of Shareholders:** Desires of shareholders for dividends depend upon their economic status. Investors, such as retired persons, widows and other economically weaker persons view dividends as a source of funds to meet their day-to-day living expenses.
13. **Future Financial Requirements:** It is essential to know the future financial requirement of the company while making a dividend decision. The management of a concern has to reconcile the conflicting interests of shareholders and those of the company' financial needs. If a company has highly profitable investment opportunities it can convince the shareholders of the need for limitation of dividend to increase the future earnings and stabilize its financial position.

TYPES OF DIVIDEND POLICY

The various types of dividend policies are mentioned below:

1. **Regular Dividend Policy:** Payment of dividend at the usual rate is known as regular dividend. The investors such as retired persons, widows and other economically weaker persons prefer to get regular dividends. The advantages of this policy are: (i) Establishing the profitable record of the company (ii) Creating the confidence amongst the shareholders (iii) It aids in long-term financing and renders financing easier (iv) Stabilising the market value of the shares (v) To meet the day-to-day expenses
2. **Stable Dividend Policy:** It means the consistency or lack of variability in the stream of dividend payments. A minimum amount of payment given regularly is known as stable dividend policy.
   - **(a) Constant Dividend per Share:** A policy of constant dividend per share is most suitable to concern whose earnings are expected to remain stable over a number of years.
   - **(b) Constant Payout Ratio:** It means payment of a fixed percentage of net earnings as dividends every year. The

amount of dividend in such a policy fluctuates in direct proportion to the earnings of the company.

(c) **Stable Dividend plus Extra Dividend:** Some companies follow a policy of paying constant low dividend per share plus an extra dividend in the years of high profits.

3. **Irregular Dividend Policy:** On account of the following reasons some of the companies are following this irregular dividend policy: (i) Unsuccessful business operations (ii) Uncertainty of earnings (iii) Lack of liquid resources (iv) Fear of adverse effects of regular dividends on the financial standing of the company.
4. **No Dividend Policy:** Sometimes a company may follow a policy of paying no dividends presently because of its unfavourable working capital position or on account of requirements of funds for future expansion and growth.

FORMS OF DIVIDEND

There are various forms of dividend. They are (a) Cash Dividend (b) Bond Dividend (c) Property Dividend (d) Stock Dividend

(a) **Cash Dividend:** It is a usual method of paying dividend. Payment of dividend in cash results in outflow of funds and reduces the company's net worth, though the shareholders get an opportunity to invest the cash in any manner they desire.

(b) **Bond dividend:** This dividend promises to pay the shareholders at a future specific date. When the company does not have sufficient funds to pay dividends in cash, it may issue notes or bonds to the shareholders.

(c) **Property Dividend:** It is paid in the form of some assets other than cash. It is not popular in India.

(d) **Stock Dividend:** It means the issue of bonus shares to the existing shareholders. If a company does not have liquid resources it is better to declare stock dividend. Bonus shares are issued free of cost to shareholders out of accumulated profits.

BONUS SHARES

Bonus shares are 'a premium or gift, usually of stock, by a corporation to shareholders' or "an extra dividend paid to shareholders in a joint stock company from surplus profit." A Company can pay bonus to its shareholders either in cash or in the form of shares. Many a times, a company is not in a position to pay bonus in cash inspite of sufficient profits because of unsatisfactory cash position or because of its adverse effects on the working capital of the company.

For example, a bonus issue of 2:3 refers to the issue of two bonus share for every three shares held by the shareholder. Bonus shares are also known as stock dividend. Issue of bonus shares does not alter the total capital structure of the company.

The effect of bonus issue on the equity portion of balance sheet is shown below:

Before Bonus Issue

	Rs.
Paid-up share capital 10,00,000 share of Rs. 10 each	1,00,00,000
Reserves and Surplus	3,00,00,000
	4,00,00,000

After Bonus Issue in the Ratio of 1:1

	Rs.
Paid-up share capital 20,00,000 share of Rs. 10 each	2,00,00,000
Reserves and Surplus	2,00,00,000
	4,00,00,000

The above proportions prove that the result of bonus issue in the ratio of 1:1, no. of shares had increased from 10 lakhs to 20 lakhs. The share capital had increased from Rs. 1 crores to Rs. 2 crores while the reserves and surplus had decreased from Rs. 3

crores to Rs. 2 crores. Hence, there is no change in the shareholder's equity.

Effect of Bonus Issue:

The effect of bonus issue is two-fold,

(i) It amount to reduction in the amount of accumulated profits and reserves.
(ii) There is a corresponding increase in the paid up share capital of the company.

By the issue of bonus shares, the accumulated profits and reserves of the company are converted into share capital which is used permanently in the business and hence it is also known as Capitalisation of Profits and Reserves.

SOURCES OF BONUS ISSUE

Bonus shares can be issued out of accumulated profits as well as current profits. However, it cannot be issued out of reserves created for a specific purpose or by revaluation of assets.

The sources of bonus issues are:

(i) Balance in Profit and Loss a/c
(ii) General Reserve or Reserve Fund
(iii) Capital Reserve arising from profit on sale of fixed assets received in cash
(iv) Capital Redemption Reserve
(v) Share Premium received in cash
(vi) Balance in sinking fund reserve for redemption of debentures
(vii) Dividend Equalisation Reserve

ADVANTAGES OF ISSUING BONUS SHARE

From the point of view of the Company

1. Issuing bonus share is the cheapest method of raising additional capital for the expansion of the business.
2. The balance sheet of the company will reveal a more realistic picture of the capital structure and the capacity of the company.

3. It is felt that financing helps the company to get rid of market influences.
4. It makes available capital to carry a larger and more profitable business.
5. Giving high rate of dividend can be reduced by issuing bonus shares which enables a company to restrict entry of new entrepreneurs into the business.
6. It helps the company to utilize the profits on a permanent basis and increase the credit worthiness of the company.
7. Issuing bonus shares to the shareholders in cash, the liquid resources are maintained and the working capital of the company is not affected.

From the point of view of investors or shareholders

1. **Indication of bright future:** Bonus shares can be issued only when there is a confident of improvement in earnings. Issue of bonus shares is therefore perceived by the investors as a signal of a bright future.
2. **Chances of Increase in Dividends:** Issue of bonus shares results in increasing the possession of shares by the shareholders. They get higher dividend even if the rate of dividend is reduced.
3. **Psychological effect:** Bonus issue increases the number of shares held by the shareholders. It has a favourable psychological effect. It gives them an opportunity to sell the shares to get capital gains, without affecting the original holding.

STOCK SPLIT

Stock splits are a method commonly used to lower the market price of shares by increasing the number of shares belonging to each shareholder. For example, one share of Rs.1000 may be split into 100 shares of Rs. 10 each.

It is to be noted that there is no change in the amount of share capital. The number of shares increases. The effect of a stock split on the balance sheet is shown as follows:

Before the Stock split
Paid up share capital Rs.
2,00,000 shares of Rs. 100 each 2,00,00,000
After the Stock split
Paid up share capital Rs.
20,00,000 shares of Rs. 10 each 2,00,00,000

REASONS FOR STOCK SPLIT

- Stock split makes the market price of a share appear to be cheap and attractive to investors.
- The effect of bonus issue is that it amounts to reduction in the amount of profits and reserves, whereas stock split does not affect the accumulated profits at all.
- The reduction in market price motivates the investors to buy the shares.
- It is an indication of higher future profits.
- Stock splits increase the number of shares. Increase in shareholding gives a sense of satisfaction to the shareholders.

COMPARISON BETWEEN BONUS ISSUE AND STOCK SPLIT

- Under bonus issue, there is no change in the par value of the share. In case of stock split par value of the share is reduced.
- Bonus shares are issued by capitalizing the earnings. Hence, there is a fall in reserves and increase in share capital. There is no capitalisation of reserves in stock split. So there is no change in reserves or share capital.

Reserve split

It is the reverse of stock split. It involves an increase in the par value of shares and a proportional decrease in the number of shares. For example, a company has ten lakh shares of Rs. 10 each. If the company increases the par value to Rs.100 and reduces the number of shares to one lakh, the process is known as reverse split.

RIGHT ISSUE

Rights issue is the offer of new shares of the company to the existing shareholders. The issue price is usually less than market price. Rights shares are offered to the shareholders in proportion to their existing shareholding in the company.

Features

1. Right issue is the issue of additional shares to the existing shareholders.
2. The shares are issued in proportion to the existing shareholding.
3. The issue price is also known as subscription price. The issue price is fixed lower than the market price to attract the shareholders.
4. Rights can be exercised only during the specified period.
5. The rights are negotiable.
6. The existing shareholders who exercise their rights in full can apply for additional shares.
7. Existing shareholders who renounce their rights in part or in full, are not generally entitled to apply for additional shares.

ADVANTAGES OF RIGHT ISSUE

- It ensures equitable distribution of shares without disturbing the established equilibrium of shareholders and the control of the company is preserved in the hands of the existing shareholders.
- The expenses to be incurred, otherwise if shares are offered to the public, are avoided
- Shareholders prefer right issue as they get the shares at a price which is less than the market price. Lower the issue price, greater is the benefit to shareholders.

- It ensures that the directors do not misuse the opportunity of issuing new shares to their relatives and friends at lower prices on the one hand and on the other get more controlling rights in the company.

STABILITY

Irrespective of the long-term payout ratio followed, the fluctuations in the year-to year dividends may be determined mainly by one of the following guidelines:

- Stable dividend payout ratio: According to this policy, the percentage of earnings paid out as dividends remains constant. As a result, dividends fluctuate in line with earnings. It is clear that such a policy results in transmission of the variability of earnings directly to dividends. Hence such a policy is rarely adopted by business firms.
- Stable dividends or steadily changing dividends: As per this policy, the rupee level of dividends remains stable or gradually increases or decreases.

CONCLUSION

There are many views regarding the impact of dividend policy on the market price of the share and the value of the firm. According to Walter, Gordon and others the dividend payout ratio is relevant and it certainly affects the market price of shares. A firm should try to follow an optimum dividend policy which maximises the shareholder's wealth in the long run. Bonus shares and stock splits also an integral part of dividend policy of a firm.

REVIEW QUESTIONS

1. What do you think are the determinants of the dividend policy of corporate enterprises?
2. What are Bonus Shares? How do they benefit the shareholders?
3. Write a short note on: (i) Cost of Right Share (ii) Stable Dividend Policy

4. Explain the Modigliani Miller's approach of irrelevance concept of dividends?
5. Discuss Walter Model and Gorden Model of share valuation visa-vis dividend policy.
6. What is the substance of Miller and Modigliani 'dividend irrelevance' theorem?
7. State Gordon's basic valuation formula. How is it derived?
8. What is the logic behind the valuation formula given by James Walter?
9. Explain the different approaches of dividend theory.
10. Discuss the criticisms of the Miller and Modigliani position.
11. What are the different forms of dividend?

UNIT III - (G)

DIVIDEND DECISION

Objectives

- This chapter looks at the dividend given by the firms.
- It also discusses the factors relevant for formulating the dividend policy and solved problems related to the dividend decisions models.
- It describes the corporate dividend behaviour, legal and procedural aspects of dividends and the issue of share buyback.

CORPORATE DIVIDEND BEHAVIOUR

The pattern of corporate dividend behaviour was provided by John Linter in 1956. Lintner's survey of corporate dividend behaviour revealed the following:

- Firms set long-run payout ratios. Mature firms with fairly stable earnings have higher payout ratios whereas rapidly growing firms have lower payout ratios.
- Managers are concerned more about the change in the dividend than the absolute level of dividend. Thus, paying a dividend of Rs. 20 per share is very important if the previous year dividend per share was Rs. 10, but not a big deal if the previous year dividend was Rs. 20 per share.
- Dividends tend to follow earnings, but dividends follow a smoother path than earnings. Transitory changes in earnings are not likely to have an impact on dividend payment.
- Since divided are sticky in nature, managers are reluctant to effect dividend changes that may have to be reversed.

Lintner expressed corporate dividend behaviour in the form of the following model:

$\mathbf{D_{t=cr}\,EPS_{t\,+}\,(1\text{-}_{c})\,D_{t-1}}$

Where D_t is the dividend per share for year t, c is the adjustment rate, r is the target payout ratio, EPS, is the earnings per share for year t, and D_{t-1} is the dividend per share for year t-1.

Example,

X Ltd has earnings per share of Rs. 8 for year t. Its dividend per share for year t-1 was Rs. 3. Assume that the target payout ratio and the adjustment rate for this firm are 0.6 and 0.5, respectively. What would be the dividend per share for X ltd for year t if the Linter model applies to it?

X dividend per share for year t would be:

0.5*0.6*8+0.5*3=3.9

The Linter model shows that the current dividend depends partly on current earnings and partly on previous year's dividend. Similarly the dividend for the previous year depends on the earnings of that year and the year preceding that year, so on and so forth. Hence, as per the Linter model, dividends can be described in terms of a weighted average of past earnings.

The following equation helps to explain the changes in dividend from year t-1 to year t.

$D_t\text{-}D_{t-1}=c\ (r\ EPS_{t-1}\text{-}D_{t-1})$

The change in dividend, $D_t\text{-}D_{t-1}$, is equal to the product of the adjustment factor, c, and the difference between the target dividend, $rEPS_t$, and the previous dividend, $D_{t-1.}$ The adjustment factor, c, is small when the firm is very conservative and large when the firm is very aggressive.

Lintner's empirical work provided substantial support for his model. Linter concluded that "On the evidence so far available, it appears that our basic model incorporates the dominant determinants of corporate dividend decisions, that these have been introduced properly, and that the resulting parameters are reasonably stable over long periods involving substantial changes in many external conditions.

John Britain who conducted an extensive study of corporate dividend behaviour tested Lintner's basic model along with two modifications. In his first modification Britain substituted cash flow for profits; in his second modification, Britain divided cash flow into its tow components, profit and depreciation. Britain found substantial for the Lintner argument, particularly in the modified forms.

SHARE BUYBACKS

Shares buybacks, referred to as equity repurchases or stock repurchases in the US are now feasible in India- till 1998 the law in India did not permit share buybacks. Several companies have initiated shares buyback programmes in India. In India, companies generally choose to buyback by the tender method or the open market purchase method. Under the tender method, a company offers to buy back shares at a specific price during a specified period which is usually one month. Under the open market purchase method, a company buys shares from the secondary market over a period of one year subject to a maximum price fixed by the management.

Effects of the Share Buyback action

Paul Corporation expects to earn Rs. 50 crores for the current year and it plans to distribute 50 per cent of this amount (25 crores) to its shareholders. There are 10 crores outstanding shares and the market price per share is Rs. 40. The company believes that it can pay a cash dividend of Rs. 3 per share or buyback one crore shares through a tender offer at Rs. 43 a share. The effect of the buyback action on its EPS and market price per share of the remaining stock may be analysed as follows: Current EPS= Total earnings / No. of shares = Rs. 50 / 10 = Rs. 5

Price- earnings ratio = Rs. 40 / Rs. 5 = 8

ESP after repurchasing 1 crore shares = Rs 50 / 9 = Rs. 5.55

Expected market price after repurchase = (P/E) (EPS) = 8 x Rs. 5.55 = Rs. 44.4

Reasons for share buybacks

The following are the reasons for share buybacks:

1. **Tax efficient way to return investor's money:** Healthy companies make profits and they must find an efficient way to give the profits to the shareholders if they don't have a good way to use them. For instance, companies such as Apple have billions in their treasury sitting and earning 2% in interest. There are two main ways to return the money. 1) Dividends. 2) Buy back shares. Many companies try to keep dividends at a constant rate so as to not hit their shareholders with an unexpected tax event.
2. **Signal to the market that the board thinks the company is strong.** When a company is buying back shares, it sends a message to the market. Since the company board knows the best about the company, the markets often think that the company is getting healthier and puts lesser pressure on the board from activist investors.
3. **Compensate for stock options & bonuses.** Companies give out stocks to their employees in the form of options & grants. This increases the number of outstanding shares. Many companies want to keep their outstanding shares stable. So, they compensate from the issue of new shares by buying back some of the old shares from public.
4. **Push up the stock price.** The stock repurchase reduces the float (number of stocks held by the public) thereby causing a scarcity of the company's shares in the market. The company could then use a favourable market condition to reissue these stocks to public and make a gain (these gains will not be reflected in the profits, as a trading gain on one's own shares is not allowed to be reported in income statement).
5. **Support the price.** When a company is pummelled by the market, key institutional shareholders would press the

company to “support a price". This is because the poor performance of the company would reflect badly on the institutions (portfolio managers, pension funds) when they send out their periodic statements to their investors.

Tax Advantage

Buyback through submission

- When direct buyback route is taken, then the investor does not get the benefit of the zero rate of tax on long term capital gains. The conditions related to the application of these rates are not fulfilled.
- The investor does not transact on the stock exchange and there is no securities transaction tax paid. So this will not allow for the application of the zero tax rates.
- The tax would be 20 percent with the benefit of indexation or 10 percent without the benefit of indexation.

Buyback through market

- Benefit of this route is that the buyer will be able to get the advantage of the zero rate of tax on long term capital gains because the necessary conditions for this purpose are satisfied. This happens as the transaction is on the stock exchange and securities transaction tax is paid on this.
- This will ensure that there is no tax liability if the gains have arisen after the shares have been held for a period of more than a year. This can result in a lot of tax savings for the investor especially when the gains are large

Regulations of Buyback:

SEBI REGULATIONS, 1998 & SECTION 77A OF THE COMPANIES ACT, 1956 FOR BUY BACK OF SHARES

- Authorized by its Articles
- Buy-back of equity shares in any financial year shall not exceed twenty-five per cent of its total paid-up equity capital in that financial year;

- Ratio of the debt owed by the company is not more than twice the capital and its free reserves after such buy-back :
- the promoter shall not deal in the securities of the company in the stock exchange during the period the buy-back offer is open
- The company shall nominate a compliance officer and investors service centre for compliance with the buy-back regulations and to redress the grievances of the investors.
- Every buy-back shall be completed within twelve months from the date of passing the special resolution passed in general meeting authorizing the buyback
- Company shall maintain a register of the securities so bought, the consideration paid for the securities bought-back, the date of cancellation of securities, the date of extinguishing and physically destroying of securities and such other particulars as may be prescribed.
- File with the Registrar and the SEBI, a return containing such particulars relating to the buy-back within thirty days of such completion
- The company shall within two days of the completion of buy-back issue an public advertisement in a national daily, inter alia, disclosing:
  (i) Number of shares bought;
  (ii) Price at which the shares are bought;
  (iii) Total amount invested in buy-back;
  (iv) details of the security holders from whom shares exceeding one-per cent of total shares bought back; and,
  (v) The consequent changes in the capital structure and the shareholding pattern after and before the buy-back.

CAPITAL MARKET POLICY MEASURES BY SEBI:-

1) **Entry Norms:** SEBI has issued various guidelines for tightening the entry norms for companies accessing capital market.

2) **Norms for Share Transfer:** SEBI has tightened the norms for transfer of shares among group companies and takeover of companies.
3) **Penal Margins:** SEBI has introduced imposition of penal margin on net undelivered portion at the end of settlement.
4) **Screen Based Trading:** SEBI allowed stock exchanges to expand their online screen based trading terminals to-locations outside their jurisdiction subject to conditions.
5) **Intermediaries:** SEBI registers and regulates the working of stock brokers, sub-brokers, and share transfer agents, trustee of trust funds, registrars to an issue, merchant banks, underwriters and other intermediaries who may be associated with securities market.
6) **Prohibition of Fraudulent and Unfair Practices:** SEBI regulates prohibition of Fraudulent and unfair trade practices which have imposed prohibition against market manipulators and unfair practices relating to securities.
7) **Steps To Improve Corporate Governance:** Sufficient disclosures are made mandatory for companies at the stage of public issue. Listed companies are required to make disclosures on continuing basis on dividend, bonus etc.
8) **Comprehensive Risk Management and Improvement in Disclosure:** In July 2002, SEB| set up a system EDIFAR (Electronic Data Information Filing And Retrieval) through which firms would electronically file mandatory disclosures to SEBI and these documents would be available to individuals across the country over the Internet, with a near-zero delay.
9) **Raising Funds From Abroad:** Indian companies are allowed to raise funds from abroad, through American / Global Depository Receipts, Foreign Currency Convertible Bonds and External Commercial Borrowings.
10) **Norms for Custodian of Securities and Depositories:** SEBI notified two regulations namely, Custodian of Securities Regulation, and Depositories and Participant Regulations.

SOLVED PROBLEMS ON DIVIDEND POLICY MODELS MODIGLIANI AND MILLER (MM) HYPOTHESIS

Problems:

1. ABC Company belongs to a risk class for which the appropriate capitalization rate is 15%. Currently it has outstanding 30,000 shares selling at Rs.200 each. The Firm is contemplating the declaration of a dividend of Rs. 10 per share at the end of the current Financial Year. It expects to have a Net Income of Rs.5, 00,000 and has a proposal for making new Investments of Rs.10, 00,000. Show that under the MM Assumptions, the payment of dividend does not affect the value of the Firm.

Solution:

a) Value of the Firm, when Dividend are Paid

i) Price per share at the end of Year 1

$$\mathbf{P_o} = \frac{\mathbf{1}}{(\mathbf{1+}\boldsymbol{ke})}\ (\boldsymbol{D_1} + \boldsymbol{P_1})$$

$$\text{Rs. } 200 = \frac{1}{1.15}\ (\text{Rs.}10 + P_1)$$

$$\text{Rs.}230 = \text{Rs.}10 + P_1$$

$$P_1 = \text{Rs.}220$$

ii) Amount required to be raised from the issue of new shares

$$\triangle n\ P_1 = \text{I} - (\text{E} - \text{n}\ D_1)$$

$= \text{Rs. } 10,00,000 - (\text{Rs. } 5,00,000 - \text{Rs. } 3,00,000)$

$= \text{Rs. } 8,00,000$

iii) Number of additional shares to be issued

n = Rs. 8,00,000 /Rs.220 = 40,000/11 shares

iv) Value of the Firm

$$\boldsymbol{n}\mathbf{P_o} = \frac{(\mathbf{n} + \triangle\mathbf{n})\ \boldsymbol{P_1} - \mathbf{I} + \mathbf{E}}{(\mathbf{1+}\boldsymbol{ke})}$$

$$= \left(\frac{30,000}{1} + \frac{40,000}{11}\right)(\text{Rs. } 220) - \text{Rs. } 10,00,000 + \text{Rs. } 5,00,000$$

$= \text{Rs. } 6399999.20 + \text{Rs. } 5,00,000$

$= \text{Rs. } 68,99,999.20 / 1.15 =$ **Rs. 59,99,999.30**

b) Value of the firm when Dividends are Not Paid

i) Price per share at the end of Year 1

$$\text{Rs. } 200 = \frac{P_1}{(\mathbf{1}+\boldsymbol{ke})}$$

$$\text{Rs. } 200 = \frac{P_1}{1.15}$$

$$P_1 = \text{Rs.}230$$

ii) Amount required to be raised from the issue of new shares

n P_1 = (Rs. 10,00,000−△Rs. Rs. 5,00,000) = Rs. 5,00,000

iii) Number of additional shares to be issued

Rs. 5,00,000 / Rs. 230 = 50,000 / 23 Shares

iv) Value of the Firm

$$= \frac{30,000}{1} + \frac{50,000}{23}(\text{Rs. } 230) - \text{Rs.}10,00,000 + \text{Rs. } 5,00,000$$

= Rs. 63,99,999.30 + Rs. 5,00,000 = Rs. 6899999.30 / 1.15

= Rs. **59,99,999.30**

Thus, whether dividends are paid or not, value of the Firm remains the same.

2. The XYZ company belongs to a risk class of which the appropriate capitalization rate is 20%. It currently has 2,00,000 shares selling at Rs. 200 each. The firm is contemplating the declaration of a Rs. 12 dividend at the end of the current financial year, which has just begun. Answer the following questions based on Modigliani and miller model and the assumptions of no taxes.
   (a) What will be the price of the shares at the end of the year, if a dividend is not declared? What will it be if it is declared?
   (b) Assuming that the firm pays dividend, has a Net Income of Rs. 20,00,000 and makes new investments of Rs. 40,00,000 during the period, how many new shares must be issued?

Solution:

(a) (i) Price of the shares, when dividend is declared

$$P_o = \frac{(D_1+P_1)}{(1+ke)}$$

$$200 = \frac{(12+P_1)}{(1+0.20)},\ P_1 = \text{Rs. } 228$$

(ii) Price of the shares, when dividend is not declared

$$200 = \frac{(0+P_1)}{(1+0.20)},\ P_1 = \text{Rs. } 240$$

(b) Assuming that the firm pays dividend, Number of new shares to be issued

$$= \frac{I - (E - nD_1)}{P_1}$$

$$= \frac{40{,}00{,}000 - (20{,}00{,}000 - 24{,}00{,}000)}{228} = 19298 \text{ Shares}$$

WALTER'S MODEL

Problems:

1. From the following information supplied to you, determine the theoretical market value of equity shares of a company as per Walter's Model:

Earnings of the Company	Rs. 15,00,000
Dividend Paid	5,00,000
Number of Shares outstanding	1,00,000
Price earnings ratio	10
Rate of return on investment (%)	15

Solution:

$$P = \frac{D + \frac{r}{ke}(E-D)}{ke}$$

$$P = \frac{5+[\frac{0.15}{0.10}](15-5)}{0.10} = \text{Rs. } 200$$

Working Notes:

i) Ke is the reciprocal of P / E ratio = 1 / 10 = 10%

ii) E = Total earnings ÷ Number of shares outstanding
iii) D = Total dividends ÷ Number of shares outstanding

2. A manufacturing company has been following a dividend policy which can maximize the market value of the firm as per Walter's Model. Accordingly, each year at dividend time, the capital budget is revised in conjunction with the earnings for the period and alternative investment opportunities for the shareholders. In the current year, the firm reports net earnings of Rs. 7,00,000. It is estimated that the firm can earn Rs. 3,00,000 if the amounts are retained. The investors have alternative investment opportunities that will yield them 30 per cent. The firm has 70,000 shares outstanding. What should be the D/P ratio of the company if it wishes to maximize the wealth of the shareholders?

Solution:

D/P ratio of the company should be zero because at this ratio, market price of the share would be the maximum as shown by the following calculation;

$$\boldsymbol{P} = \frac{\boldsymbol{D}+[\frac{\boldsymbol{r}}{\boldsymbol{ke}}](\boldsymbol{E}-\boldsymbol{D})}{\boldsymbol{ke}}$$

$$P = \frac{0+[\frac{0.42}{0.30}](10-0)}{0.30}$$

P = Rs. 46.66

Working Notes:

r = (Rs. 3,00,000 / Rs. 7,00,000) x 100 = 42.85 %
E = Rs. 7,00,000 / 70,000 = Rs. 10

3. The earnings per share of a company is Rs. 40 and the rate of capitalization applicable is 35% . The company has before it, an option of adopting (i) 25, (ii) 50 and (iii) 75 percent dividend payout ratio. Compute the market price of the company's quoted shares as per Walter's model if it can earn a return of (a) 35, (b) 45 and (c) 25 percent on its retained earnings.

(i) D/P ratio = 0.25	(ii) D/P ratio = 0.50	(iii) D/P ratio = 0.75
(a)Price of shares if r = 0.35		
$P = \frac{10+[\frac{0.35}{0.35}](40-10)}{0.35}$ = Rs. 114.28	$P = \frac{20+[\frac{0.35}{0.35}](40-20)}{0.35}$ = Rs. 114.28	$P = \frac{30+[\frac{0.35}{0.35}](40-30)}{0.35}$ = Rs. 114.28
(b) Price of shares if r = 0.45		
$P = \frac{10+[\frac{0.45}{0.35}](40-10)}{0.35}$ = Rs. 138.28	$P = \frac{20+[\frac{0.45}{0.35}](40-20)}{0.35}$ = Rs. 130.28	$P = \frac{30+[\frac{0.45}{0.35}](40-30)}{0.35}$ = Rs. 122.28
(c) Price of shares if r = 0.25		
$P = \frac{10+[\frac{0.25}{0.35}](40-10)}{0.35}$ = Rs. 89.42	$P = \frac{20+[\frac{0.25}{0.35}](40-20)}{0.35}$ = Rs. 97.71	$P = \frac{30+[\frac{0.25}{0.35}](40-30)}{0.35}$ = Rs. 106

4. The following information is available in respect of a firm:
   Capitalization rate (ke) = 0.20
   Earnings per share (E) = Rs.20
   Assumed rate of return on investments (r) : (i) 30, (ii) 16 and (iii) 20.
   Show the effect of dividend policy on the market price of shares, using Walter's Model.

Solution:

(i) When r is 0.30, that is, r > ke

(a) D/P ratio = 0 (Dividend per share = zero)

$$P = \frac{0+[\frac{0.30}{0.20}]\,(20-0)}{0.20} = \text{Rs. } 150$$

(b) D/P ratio = 25 (Dividend per share = 2.5)

$$P = \frac{2.5+[\frac{0.30}{0.20}]\,(20-2.5)}{0.20} = \text{Rs. } 143.75$$

(c) D/P ratio = 50 (Dividend per share = 5)

$$P = \frac{5+[\frac{0.30}{0.20}]\,(20-5)}{0.20} = \text{Rs. } 137.50$$

(d) D/P ratio = 75 (Dividend per share = 7.5)

$$P = \frac{7.5+[\frac{0.30}{0.20}]\,(20-7.5)}{0.20} = \text{Rs. } 131.25$$

(e) D/P ratio = 100 (Dividend per share = 10)

$$P = \frac{10+[\frac{0.30}{0.20}]\,(20-10)}{0.20} = \text{Rs. } 125$$

(ii) When r is 0.16, that is, r <ke

(a) D/P ratio = 0 (Dividend per share = zero)

$$P = \frac{0+[\frac{0.16}{0.20}]\,(20-0)}{0.20} = \text{Rs. } 80$$

(b) D/P ratio = 25 (Dividend per share = 2.5)

$$P = \frac{2.5+[\frac{0.16}{0.20}]\,(20-2.5)}{0.20} = \text{Rs. } 82.50$$

(c) D/P ratio = 50 (Dividend per share = 5)

$$P = \frac{5+[\frac{0.16}{0.20}]\,(20-5)}{0.20} = \text{Rs. } 85$$

(d) D/P ratio = 75 (Dividend per share = 7.5)

$$P = \frac{7.5+[\frac{0.16}{0.20}]\,(20-7.5)}{0.20} = \text{Rs. } 87.50$$

(e) D/P ratio = 100 (Dividend per share = 10)

$$P = \frac{10+[\frac{0.16}{0.20}]\,(20-10)}{0.20} = \text{Rs. } 90$$

(iii) When r is 0.20, that is, r = ke

(a) D/P ratio = 0 (Dividend per share = zero)

$$P = \frac{0+[\frac{0.20}{0.20}]\,(20-0)}{0.20} = \text{Rs. } 100$$

(b) D/P ratio = 25 (Dividend per share = 2.5)

$$P = \frac{2.5+[\frac{0.20}{0.20}]\,(20-2.5)}{0.20} = \text{Rs. } 100$$

(c) D/P ratio = 50 (Dividend per share = 5)

$$P = \frac{5+\left[\frac{0.20}{0.20}\right](20-5)}{0.20} = \text{Rs. } 100$$

(d) D/P ratio = 75 (Dividend per share = 7.5)

$$P = \frac{7.5+\left[\frac{0.20}{0.20}\right](20-7.5)}{0.20} = \text{Rs. } 100$$

(e) D/P ratio = 100 (Dividend per share = 10)

$$P = \frac{10+\left[\frac{0.20}{0.20}\right](20-10)}{0.20} = \text{Rs. } 100$$

Conclusion

(i) When r > ke, the value of shares are inversely related to the D/P ratio: as the payout increases, the market value of shares declines.

(ii) When r < ke, the D/P ratio and the value of shares are positively correlated: as the payout ratio increases, the market price of the shares also increases.

(iii) When r = ke, the market value of shares is constant irrespective of the D/P ratio

GORDON'S MODEL

1. The following information is supplied to you, to determine the value of a Company's shares. Its return on investment is 10% and earnings per share is Rs. 30.

D/P ratio:	(i) 20	(ii) 40	(iii) 60
Retention ratio:	(i) 90	(ii) 70	(iii) 50
Capitalization:	(i) 14	(ii) 15	(iii) 16

Solution:

(i) D/P ratio = 20 Retention ratio = 90

b r = 0.9 x 0.10 = 0.09

$$\boldsymbol{P} = \frac{\boldsymbol{E\,(1-b)}}{\boldsymbol{ke-br}} = \frac{30\,(1-0.9)}{0.14-0.09} = \text{Rs. } 60$$

(ii) D/P ratio = 40 Retention ratio = 70

b r = 0.7 x 0.10 = 0.07

$$P = \frac{E\,(1-b)}{ke-br} = \frac{30\,(1-0.7)}{0.15-0.07} = \text{Rs. } 112.50$$

(iii) D/P ratio = 60 Retention ratio = 50

b r = 0.5 x 0.10 = 0.05

$$P = \frac{E\,(1-b)}{ke-br} = \frac{30\,(1-0.5)}{0.16-0.05} = \text{Rs. } 136.36$$

2. The following information is given about a Textile ltd. Find its shares value.

Earnings per share	Rs. 100
Return on investment	12%
D/P ratio	75
Retention ratio	26
Capitalization rate	36%

Solution:

b r = 0.26 x 0.12 = 0.03

$$P = \frac{E\,(1-b)}{ke-br} = \frac{100\,(1-0.26)}{0.36-0.03} = \text{Rs. } 224.24$$

3. Calculate the value of shares for ABC company under the following conditions
   (i) If return on investment (r) = 21%
   (ii) If return on investment (r) = 53%
   Earnings per share (E) of the company is Rs. 150. The D/P ratio (1 – b) is 70, retention ratio (b) is 52, capitalization rate (ke) is 67%.

Solution:

(i) If r = 21%

b r = 0.52 x 0.21 = 0.11

$$P = \frac{150\,(1-0.52)}{0.67-0.11} = \text{Rs. } 128.57$$

(ii) If r = 53%

b r = 0.52 x 0.53 = 0.28

$$P = \frac{150\ (1-0.52)}{0.67-0.28} = \text{Rs. } 184.62$$

4. The following detail is available in respect of the rate of return on investment (r), the capitalization rate (ke) and earnings per share (E) of a firm.
   r = 15%   E = Rs. 60
   Determine the value of its shares assuming the following.

D/P ratio (1 – b)	Retention ratio (b)	Ke (%)
15	80	10
25	70	20
35	60	30
45	50	40
55	40	50

Solution:

(i) D/P ratio = 15   Retention ratio = 80

b r = 0.80 x 0.15 = 0.12

$$\boldsymbol{P = \frac{E\ (1-b)}{ke-br}} = \frac{60\ (1-0.80)}{0.10-0.12} = \text{Rs. } 600$$

(ii) D/P ratio = 25   Retention ratio = 70

b r = 0.70 x 0.15 = 0.11

$$\boldsymbol{P = \frac{E\ (1-b)}{ke-br}} = \frac{60\ (1-0.70)}{0.20-0.11} = \text{Rs. } 200$$

(iii) D/P ratio = 35   Retention ratio = 60

b r = 0.60 x 0.15 = 0.09

$$\boldsymbol{P = \frac{E\ (1-b)}{ke-br}} = \frac{60\ (1-0.60)}{0.30-0.09} = \text{Rs. } 114.28$$

(iv) D/P ratio = 45   Retention ratio = 50

b r = 0.50 x 0.15 = 0.07

$$\boldsymbol{P = \frac{E\ (1-b)}{ke-br}} = \frac{60\ (1-0.50)}{0.40-0.07} = \text{Rs. } 90.91$$

(v) D/P ratio = 55   Retention ratio = 40

b r = 0.40 x 0.15 = 0.06

$$P = \frac{E\,(1-b)}{ke-br} = \frac{60\,(1-0.40)}{0.50-0.06} = \text{Rs. } 81.82$$

5. Calculate the value of shares where
   r = 48%
   E = Rs. 500
   1 – b = 20
   b = 85
   ke = 0.63

Solution:

b r = 0.85 x 0.48 = 0.41

$$P = \frac{E\,(1-b)}{ke-br} = \frac{500\,(1-0.85)}{0.63-0.41} = \text{Rs.}340.90$$

RESIDUAL DIVIDEND POLICIES IN INDIA

Companies using the residual dividend policy choose to rely on internally generated equity to finance any new projects. As a result, dividend payments can come out of the residual or leftover equity only after all project capital requirements are met. These companies usually attempt to maintain balance in their debt/equity ratios before making any dividend distributions, deciding on dividends only if there is enough money left over after all operating and expansion expenses are met.

For example, let's suppose that a company named CBC has recently earned $1,000 and has a strict policy to maintain a debt/equity ratio of 0.5 (one part debt to every two parts of equity). Now, suppose this company has a project with a capital requirement of $900. In order to maintain the debt/equity ratio of 0.5, CBC would have to pay for one-third of this project by using debt ($300) and two-thirds ($600) by using equity. In other words, the company would have to borrow $300 and use $600 of its equity to maintain the 0.5 ratio, leaving a residual amount of $400 ($1,000 - $600) for dividends. On the other hand, if the project had a capital requirement of $1,500, the debt requirement would be $500 and the equity requirement would be $1,000, leaving zero

($1,000 - $1,000) for dividends. If any project required an equity portion that was greater than the company's available levels, the company would issue new stock.

Typically, this method of dividend payment creates volatility in the dividend payments that some investors find undesirable.

The residual-dividend model is based on three key pieces: an investment opportunity schedule (IOS), a target capital structure and a cost of external capital.

- The first step in the residual dividend model to set a target dividend payout ratio to determine the optimal capital budget.
- Then, management must determine the equity amount needed to finance the optimal capital budget. This should be done primarily through retained earnings.
- The dividends are then paid out with the leftover, or residual, earnings. Given the use of residual earnings, the model is known as the "residual-dividend model."

A primary advantage of the dividend-residual model is that with capital-projects budgeting, the residual-dividend model is useful in setting longer-term dividend policy. A significant disadvantage is that dividends may be unstable. Earnings from year to year can vary depending on business situations. As such, it is difficult to maintain stable earnings and thus a stable dividend. While the residual-dividend model is useful for longer-term planning, many firms do not use the model in calculating dividends each quarter.

EMPLOYEES STOCK OPTION PLAN (ESOP)

ESOP:

ESOP's are Employee Stock Option Plans under which employees receive the right to purchase a certain number of shares in the company at a predetermined price, as a reward for their performance and also as motivation for employees to keep increasing their performance. Employees typically have to wait for a certain duration known as vesting period before they can exercise the right to purchase the shares.

The main aim of giving such a plan to its employees is to give shares of the company to its employees at a discounted price to the market price at the time of exercise. Many companies (especially in the startup phase) have now started giving Employee Stock Options as this is beneficial to both the employer as well as the employee.

Benefits of ESOP

The major benefits of awarding Employee Stock Options are mentioned below:

- **Lock-in Period:** ESOP's come with a lock-in period known as vesting period and employees can exercise the options only after this period. If the employee leaves the organization before completing the specified period – these ESOP's get lapsed and the employee will not get any benefit.
- A '**Sense of Ownership' for the employees:** When the employees are given shares of the same company in which they are working, it gives them a sense of feeling that now they are not employees of this organization but are the owners. As they are now they owners, they also have a share in the profits of the company. In fact, since employees directly benefit from the increase in the share price, they focus on overall value creation for the company.
- **Kind instead of Cash:** ESOP's are a way of awarding the employees in kind instead of cash. In the initial days of ESOP's in India, small organizations who were cash strapped used to give ESOP's to their employees to increase the overall pay package. In this manner, they were able to compensate the employees in kind without affecting their cash reserves (if a organization issues ESOP's- its cash reserves are not affected).

Taxation of ESOP’s in India

There have been various changes in the taxation of ESOP’s in the past 20 years. The Government finally seems to have found a logical way of taxing ESOP’s. The manner of computation of Tax of ESOP’s in the hands of the employee has been explained hereunder:-

- **At the time of giving ESOP’s:** The benefits arising on ESOP’s are taxed as Perquisites in the hands of the employee and form a part of the employee’s salary income. The employer is also required to deduct TDS in respect of such perquisite.
- The perquisite value is computed as the difference between the fair market value of the share and the Exercise price.
- **At the time of sale of such ESOP’s by the employee:** The gains arising on the sale of ESOP’s are considered to be Capital Gains; Capital Gains Tax is levied on the such gains and tax is liable to be paid in the year in which such ESOP’s are sold. The Capital Gain is computed as the difference between the sale price and the price at which it was awarded by the Employer.
- The Capital Gains treatment further depends on the holding period of the ESOP’s i.e. if the shares are held for less than 12 months – Short Term Capital Gains Tax@ 15% is levied and if the shares are held for more than 12 months- Long Term Capital Gains Tax is levied (this is currently NIL). Thus, if such ESOP’s are held by the employee for more than 12 months, the gains arising on the sale of such ESOP’s is effectively exempt from Tax

Legal, procedural and Tax Aspects

Legal Aspects

The amount of dividend that can be legally distributed is governed by company law, judicial pronouncements in leading cases, and contractual restrictions. The important provisions of company law pertaining to dividends are as follows:

1. Companies can pay only cash dividends. Apart from cash, dividend may also be remitted by cheque or by warrant. It may be transmitted electronically to shareholders after obtaining their consent in this regard to the bank account number specified by them. The step has been proposed by the Department of Company Affairs to avoid delay in the remittance of dividend.
2. Dividends can be paid only out of the profits earned during the financial year after providing for depreciation and after transferring to reserves such percentage profits as prescribed by law. The Companies Rules, 1975, provide that before dividend declaration, a percentage of profit as specified below should be transferred to the reserves of the company.
   (i) Where the dividend proposed is upto 10 per cent of the paid up capital, no amount of the current profits needs to be transferred.
   (ii) Where the dividend proposed exceeds 10 per cent but not 12.5 per cent of the paid-up capital, the amount to be transferred to the reserves should not be less than 2.5 per cent of the current profits.
   (iii) Where the dividend proposed exceeds 12.5 per cent but not 15 per cent, the amount to be transferred to reserves should not be less than 5 per cent of the current profits.
   (iv) Where the dividend proposed exceeds 15 per cent but not 20 per cent, the amount to be transferred to reserves should not be less than 7.5 per cent of the current profits.
   (v) Where the dividend proposed exceeds 20 per cent, the amount to be transferred to reserve should not be less 10 per cent.
   (vi) A company may voluntarily transfer a percentage higher than 10 per cent of the current profits to reserves in any financial year provided the following conditions are satisfied:
      (a) It ensures that the dividend declared in that financial year is sufficient to maintain average rate of dividend

declared by it over three years immediately proceeding the financial year.

(b) In case, it has issued bonus shares in the year in which dividend is declared or in the three immediately preceding the financial year, it maintains the amount of dividend equal to the average amount of dividend declared over the three years immediately proceeding the financial year.

(vii) A newly incorporated company is prohibited from transferring more than ten per cent of its profits to reserves. The current profit for the purpose of transfer to reserves will be profits after providing for statutory transfer to the Development Rebate Reserve and arrears of depreciation if any.

3. Due to inadequacy or absence of profits in any year, dividend may be paid out of the accumulated profits of previous years.

Conditions: (i) The rate of the declared dividend should not exceed the average of the rates at which dividend was declared by the company in 5 years immediately preceding that year or 10 per cent of its paid-up capital, whichever is less.

(iii) The total amount to be drawn from the accumulated profits earned in previous years and transferred to the reserves should not exceed an amount equal to one-tenth of the sum of its paid-up capital and free reserves and the amount so drawn should first be utilized to set off the losses incurred in the financial year before any dividend in respect of preference or equity shares is declared.

(iv) The balance of reserves after such drawal should not fall 15 per cent of its paid-up capital.

4. Dividends cannot be declared for past years for which accounts have been adopted by the shareholders in the annual general meeting.

5. Dividend declared, interim or final, should be deposited in a separate bank account within 5 days from the date of

declaration and dividend will be paid within 30 days from such a date.

6. Dividend including interim dividend once declared becomes a debt. While the payment of interim dividend cannot be revoked, the payment of final dividend can be revoked with the consent of the shareholders.

Procedural Aspects

The important events and dates in the dividend payment procedure are:

- **Board resolution:** The dividend decision is the prerogative of the board of directors. Hence the board of directors should in a formal meeting resolve to pay the dividend.
- **Shareholders' approval:** The resolution of the board of directors to pay the dividend has to be approved by the shareholders in the annual general meeting.
- **Record date:** The dividend is payable to shareholders whose names appear in the Register of Members as on the record date.
- **Dividend payment:** Once a dividend declaration has been made, dividend

Warrants must be posted within 30 days. Within a period of 7 days, after the expiry of 30 days, unpaid dividends must be transferred to a special account opened with a scheduled bank.

- **Unpaid Dividend:** If the money transferred to the 'unpaid dividend account' in the scheduled bank remains unpaid/unclaimed for a period of 7 years from the date of such transfer, the company is required to transfer the same to the Investor. Education and protection fund established for the purpose.

Tax Aspects

With effect from financial year 2003-04, dividend income from domestic companies and mutual funds is exempt from tax in the hands of the shareholder/investors/unit-holders. However, the domestic companies will be liable to pay dividend distribution tax at the effective rate of 16.995 per cent on dividends paid after April 1, 2007.

DIVIDEND POLICIES IN INDIA

- The return given to the shareholders on their investment is known as dividend
- First Stage in Dividend Policy: Conservative
- Second Stage: Liberal
- Third Stage: No Dividend Policy
- India is in the second stage right now

Dividend policies followed by leading companies in India

Dividend is a payment made by a company out of its profit. For investor's dividend is a source of earning apart from the capital appreciation that share of a company provides. It becomes important for an investor to investigate the dividend policy followed by the companies. Dividend policy is a part of corporate governance policy of a company. Many investor friendly companies have their dividend policy documented in some or the other.

The below mentioned details give an insight dividend policies followed by some of the leading companies in India.

Name of the company	Dividend Policy	Dividend Paid	
		Year	**Amount (Rs.)**
Larsen and Toubro	The boards of directors review the dividend policy periodically. L&T pays a dividend because the company's investors in India and abroad view this as an important market signal of the management's confidence in the future.	2010-11	14.50
		2009-10	12.50
		2008-09	10.50
		2007-08	17.00

<table>
<tr><td rowspan="5">CRISIL</td><td rowspan="5">CRISIL believes in maintaining a fair balance between cash retention and dividend distribution. Cash retention is required to finance acquisitions and future growth, and also as a means to meet any unforeseen contingency. CRISIL has also been conscious of the need to maintain stability in its dividend payout over the years. From 2008, CRISIL has commenced the practice of paying dividend on a quarterly basis.</td><td>Year</td><td>Amount (Rs.)</td></tr>
<tr><td>2011-12</td><td>60</td></tr>
<tr><td>2010-11</td><td>200</td></tr>
<tr><td>2009-10</td><td>100</td></tr>
<tr><td>2008-09</td><td>70</td></tr>
<tr><td rowspan="5">HDFC Bank</td><td rowspan="5">HDFC Bank has had a consistent dividend policy that balances the dual objectives of appropriately rewarding shareholders through dividends and retaining capital, in order to maintain a healthy capital adequacy ratio to support future growth. It has had a consistent track record of moderate but steady increases in dividend declarations over its history with the dividend payout ratio ranging between 20% and 25%.</td><td>Year</td><td>Amount (Rs.)</td></tr>
<tr><td>2010-11</td><td>16.5</td></tr>
<tr><td>2009-10</td><td>12.00</td></tr>
<tr><td>2008-09</td><td>10.00</td></tr>
<tr><td>2007-08</td><td>8.50</td></tr>
<tr><td rowspan="5">Infosys</td><td rowspan="5">Currently, Infosys pays dividends to its shareholders. The current dividend policy is to distribute not more than 30% of the PAT (unconsolidated Indian GAAP) as dividend. The Board of Directors reviews the dividend policy periodically and on Apr 15, 2008 decided to hike the dividend policy to upto 30% of</td><td>Year</td><td>Amount (Rs.)</td></tr>
<tr><td>2011-12</td><td>37</td></tr>
<tr><td>2010-11</td><td>30</td></tr>
<tr><td>2009-10</td><td>25</td></tr>
<tr><td>2008-09</td><td>23.50</td></tr>
</table>

	post tax profits from 20% of post tax profits earlier		
ONGC	As per the guideline dated February 11, 1998 from the Government of India, all profit-making PSUs which are essentially commercial enterprises should declare the higher of a minimum dividend of 20 percent on equity or a minimum dividend payout of 20 percent of post-tax profit. The minimum dividend pay-out in respect of enterprises in the oil, petroleum, chemical and other infrastructure sectors such as us should be 30 percent of post-tax profits.	Year	Amount (Rs.)
		2010-11	8.75
		2009-10	33
		2008-09	32
		2007-08	32

CONCLUSION

A major decision of financial management is the dividend decision in the sense that the firm has to choose between distributing the profits to the shareholders and ploughing them back into the business. The determinants of the dividend policy of a firm are dividend payout ratio, stability of dividends, legal, contractual and internal constraints and restrictions, owners' considerations, capital market considerations and inflation. There are many empirical studies pursue a stable dividend policy. A firm should seek a stable dividend policy which avoids occasional reductions in dividends.

REVIEW QUESTIONS

1. What did Lintner's survey of corporate dividend behavior reveal?
2. How valid is the Lintner model?
3. Discuss the justifications for share buybacks.
4. State the common objections to share buybacks.

5. The following information is available for Jeri Corporation.
   - Earnings per share : Rs. 2
   - Rate of return on investments : Rs.18 per cent
   - Rate of return required by shareholders : Rs.15 per cent

   What will be the price per share as per the Walter model if the payout ratio is 40 percent? 50 percent?60 per cent?
6. The following data is available for Preethi Ltd.
   - Earnings per share :Rs.10
   - Rate of return required by share holders: 16 per cent

   Assuming that the Gordon valuation model holds, what rate of return should be earned on investments to ensure that the market price is Rs. 50 when the dividend payout is 40 per cent?
7. Moon Ltd shows the following information:
   - Earnings per share : Rs. 6
   - Rate of return : 15 per cent
   - Cost of capital : 12 per cent

   If Walter's valuation formula holds, what will be the price per share when the dividend payout ratio is 50 per cent? 75 per cent?100 per cent?

   If Gordon's basic valuation formula holds, what will be the price per share when the dividend payout is 25 per cent, 50 per cent, and 75 per cent?
8. X Ltd. has 6 lakhs equity shares outstanding at the beginning of the year 2013. The current market price per share is Rs. 120. The Board of Directors of the company is contemplating Rs. 7.5 per share as dividend. The rate of capitalisation, appropriate to the risk-class to which the company belongs, is 9.8%`
   (i) Based on MM approach, calculate the market price of the share of the company, when the dividend is (a) declared; and (b) not declared
   (ii) How many new shares are to be issued by the company, if the company desires to fund an investment budget of Rs. 1.80 crores by the end of the year assuming net income for the year will be Rs. 1.20 crores?

UNIT IV - (H)

INTERNATIONAL FINANCIAL MARKETS AND INSTRUMENTS

Objectives

International securities market being an important segment of International financial markets available long-term, medium term and short term funds. The process is, of course, different. The borrower issues securities to obtain funds. The present chapter discusses the different types of securities to obtain funds. In particular, it attempts:

- To discuss how international equities are issued.
- To explain different kinds of bonds and how they are issued.
- To present the features of euro notes and euro commercial papers meant for short-term funds and medium-term euro notes meant for medium-term funds.

INTRODUCTION

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

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

A financial market is a market in which financial assets are traded. In addition to enabling exchange of previously issued financial assets, financial markets facilitate borrowing and lending by facilitating the sale by newly issued financial assets.

Examples of financial markets include the New York Stock Exchange (resale of previously issued stock shares), the U.S. government bond market (resale of previously issued bonds), and the U.S. Treasury bills auction (sales of newly issued T-bills).

INTERNATIONAL EQUITIES

International equities or the Euro-equities do not represent debt, nor do they represent foreign direct investment. They are comparatively a new instrument representing foreign portfolio equity investment. In this case, the investor gets the divided and not the interest as in case of debt instruments. On the other hand, it does not have the same pattern of voting right that it does have in the case if foreign direct investment. In fact, international equities are a compromise between the debt and the foreign direct investment. They are the investments that are presently on the preference list of the investors as well as the issuers. This has enabled Euro-equity issues to surge to US$7.3 billion during 1990 to US $ 44 billion in 1995 to US$ 59 billion in 2000 and to over 70 billion and to over 70 billion in 2004 and far greater at US$496.2 billion during 2007.

PROCEDURE OF ISSUE

- **Planning for the size and the Government approval**

When a company plans to issue international equity, it decides about the size of the issue, the market where the equities are to be issued, the price of the issue, and about many other formalities. It approaches the lead manager-normally an investment bank-which has a better knowledge of the international financial market. The lead manager examines the risk factor of the issue as well as its prospect. It suggests about the details of the depositary or through the global depositary. When the lead manager gives a green signal, the issuing company prepares the prospectus, etc and takes permission from the regulatory authorities.

- **Role of custodian Bank**

After getting approval from the regulatory authorities, it dependthe shares to be issued with the custodian bank located in the domestic country. The custodian bank is appointed by the depositary in consultation with the share-issuing company. When the shares are deposited with the custodian bank, the latter asks the depositary located in a foreign country to issue depositary receipts in lieu of the shares held. The ratio between the number of shares and the number of depositary receipts is decided well before the actual issue.

In fact, the fixing up of the issue price or the ratio between the depositary receipts and the shares depends upon a host of economic variables. Generally, the issues are priced at discount insofar as the earning per share drops in proportion to the increase in capital. The market price of depositary receipts in the international markets is largely dependent upon earnings potential, industry fundamentals, and macro-economic fundamentals.

- **Secondary market operation of International securities**

Facilities de exists for secondary market operation for all types of euro issues. In the case of the foreign bonds, listing is done on a particular stock exchange in a particular country. But for Euro bonds, many financial centers are involved. This is why transactions take place in over-the-counter market. However, listing with international stock exchange helps Euro issues in determining their price, depending upon the performance of the issuer and demand for the issue. Sometimes, before the secondary market starts functioning, the particular Euro bond is in great demand. Such trading is known as grey trading, although such cases are rare.

For smooth operation of the clearing houses and operations of the secondary market, there is the International Securities market Association (ISMA). ISMA has -enrolled market makers who provide continuously two-way price quotations with a bid-ask spread of usually 50 b.p. (business process) and enable investors to buy and sell euro issues. The buyer pays the seller the agreed price along with interest to buy and sell euro issues. The buyer pays the seller the agreed price along with interest accrued. The standard size of euro bond transaction is 100 bonds with $100,000 of face value.

The settlement is done usually within a week. The settlement instructions are routed through the clearing house. An international security clearing was developed in 1968 at Brussels, known as Euroclear. Two years later, Cedel was set up in Luxembourg. These two provide settlement through book-keeping entries.

- **Gains from International Issues**

The international issues are beneficial for both the issuers and investors. The euro-issue market fits better into a firm's funding strategy. Kim and Stulz (1998) examined the impact of euro bond issues on the value of the issuing firm based on 183 issues during 1975-1985 and found positive abnormal returns on equity within the two-day period of the announcement of the euro-bond offer. There are many more gains that are mentioned here at some length under two heads: Primary and Secondary market gain.

- **The Primary Market Gain**

First of all, the developmental outlay required huge funds for investment, especially foreign exchange that may not be available domestically in the desired quantum. Euro issues are a right step because these issues help bring in foreign exchange.

Secondly, the funds from the international financial market are available at a lower cost. More specifically, in case of bonds to be issued in the international financial market, the rate of interest has normally been lower. The reason is that in a matured economy where market forces have a greater scope for a free play; interest rates tend to be lower.

Thirdly, the opening up of a route to international financial market helps diversification of the sources of funds and in turn lowers the risk factor. It may be mentioned that the systematic risk can be reduced only internationally as the macro-economic variable tend to vary internationally. Thus the international issue of securities serves both the ends-lowering of the cost as well as lowering of the risk. The lowering of risk is significant also for the investors when they diversify their investment in different channels.

Fourthly, the ADRs/GDRs are priced by the depositors normally at the average price of the related shares and so it is a source of gain when the share market is bullish.

Fifthly, it is not simply the advantage on account of price; it is also the convenience aspect. Since the international financial market do not normally maintain stringent disclosure norms and so it is more convenient to raise funds there.

Last but not least, in many cases, it has been found that the company's presence in the international financial market helps elevate its image. It enjoys a higher rating.

- **The Secondary Market Gains**

The significance of the euro-issues is not limited to primary market. After ADRs/GDRs are issued, they are also listed on the international stock exchanges and subsequently traded at the international stock exchanges. The trading brings ample gains. The argument is the international trading of shares reduces market segmentation and there by reduces or eliminates risk premium and helps increases the share prices. It may be noted here that capital market segmentation appears when the shares are traded simply in one market on account of restrictions imposed on international investment. The segmentation gets weaker with growing liberalization of the foreign investment policy. The combines go for listing and trading of Euro issues that it turns puts a positive impact on the risk return aspect of this issues.

Kumar (2006) finds in case of 68 Indian firms going for listing their securities abroad in the form depositary receipts that the volatility of the underlying stocks reduced significantly. The investors at the international stock exchange to prepare to invest in the shares of the emerging market economies in view of growing stock market in this economy. The British investors in GDR of 20 Indian firms more than doubled in 2007 with a total turnover of dollar 11.9 billion.

Again it is also believed that the foreign listing of the securities enhances liquidity of a company stock on account of informational linkage between domestic country and the foreign country where the shares are traded. To Confirms that listing in the overseas market raises the volume of trading in the respective securities at home and thereby boosters up the liquidity. Liquidity in the financial market gives, in turn a boost to market credibility it provides accurate price signal to investors and to do the companies which is essential for efficient risk sharing strategy moreover, liquidity influences the cost of capital and makes the investment decision more effective. Multi market trading stimulates the competition between different markets which in turn forces market makers to provide the best possible bid-ask spread and thereby retains the existing traders and attracts new investors.

SHORT-TERM AND MEDIUM-TERM INSTRUMENTS

- **Euro Notes**

Legal tender in the form of a banknote can be used in exchange for goods and services in the euro zone. Euro notes come in 5, 10, 15, 20, 50, 100, 200 and 500 euro denominations. The supply of euro notes is controlled by the European Central Bank, which controls the monetary policy in order to maintain price stability in the European Union.

The design of the euro notes was chosen in December 1996 and the theme was inspired by the different architectural styles found throughout Europe. The incorporation of the euro in 1999 has drastically changed the foreign exchange markets and has made the euro one of the most highly liquid and commonly traded currencies in the world.

- **Euro Commercial Paper**

Euro-commercial-paper (Euro-CP) is a short-term non-underwritten loan denominated in a currency other than the home currency of the issuer. Euro-CP usually has a maturity that is twice as long as U.S. commercial-paper. Euro-Commercial-Paper is also traded in a secondary market which is rare for US-CP.

One advantage that Euro-CP has over US-CP is its flexibility. Euro-CP is multidenominational allowing organizations to borrow in many different currencies.

Example: If a U.S. corporation issues a short-term bond denominated in Canadian dollars to finance its inventory through the international money market, it has issued euro commercial paper.

- **Medium term Euro Notes**

A Fixed income security issued by a company or sovereign entity in the Euromarkets from a standing program arranged by an underwriter; once the program is registered issuance can take place at will. Financing via an EMTN program gives an issuer considerable flexibility in accessing funds in the form, and at a time, deemed most beneficial. EMTNs can be issued in a range of currencies and maturities (up to 30 years), in fixed rate, floating rate, collateralized, amortizing, and credit supported form. A single issue from an EMTN program can be likened to a Euro note or Euro bond.

EURO MARKET

MEANING

The Euro market is a large single market comprised of all member countries, allowing for more efficient trade and the centralization of monetary policy through the ECB. The Euro market is considered a major finance source for international trade, through the money market or euro currency, euro credit and euro bonds. The market includes all of the European Union member countries - many of which use the same currency, the euro. All tariffs between Euro market member countries have been abolished, and import duties from all non-member countries have been fixed for all of the member countries. The Euro market also has one central bank for all of the member countries, the European Central Bank (ECB). It is also known as "the common market".

EMERGENCE OR EURO MARKET

- During the 1950s, the erstwhile USSR was earning dollars from the sale of gold and other commodities and wanted to use them to buy grain and other products from the West, mainly from the US. However, they did not want to keep these dollars on deposit with banks in New York, as they were apprehensive that the US government might freeze the deposits if the cold war intensified. They approached banks in Britain and France who accepted these dollar deposits and invested them partly in US.
- Domestic banks in US (as in many other countries) were subjected to reserve requirements, which meant that a part of their deposits were locked up in relatively low yielding assets.
- The importance of the dollar as a vehicle currency in international trade and finance increased, so many European corporations had cash flows in dollars and hence temporary dollar surpluses. Due to distance and time zone problems as well as their greater familiarity with European banks, these companies preferred to keep their surplus dollars in European

banks, a choice made more attractive by the higher rates offered by Euro banks.

FACTORS CONTRIBUTING TO THE GROWTH OF EURO MARKET

- **Relaxation of Exchange control and resumption of currency convertibility:** The general relaxation of exchange market and the redemption of the currency convertibility in Western Europe in 1958 provided an added impetus to the growth of the euro market.
- **The Political Factors:** The cold war between the United Stated and the communist countries also contributed to the euro currency markets.
- **Balance of payment deficit of the US:** Deficit in the balance of payments in US meant an increasing flow of US dollar to those countries which had a surplus with the US
- **The Regulation of "Q":** Regulation of Q which fixed the maximum rate of interest payable to the banks in US and prohibition of payment of interest on deposit for less than 30 days very significantly contributed to the growth of Euro Market.
- **Innovative Banking:** The advent of the Innovative Banking spread headed by the US banks in Europe and the willingness of the banks in the market to operate on a narrow basis also encouraged the growth of euro market.
- **Supply of Petrodollars:** The flow of petro dollar facilitated by the increase in the OPEC's oil revenue following by the oil price hike since 1973 has been a significant source of growth of euro currency.

BENEFITS OF EURO MARKET

The Euro is the single European countries adopted by 18 /28 EU countries. It is the second largest reserve currency in the world, after the US Dollar.

Euro notes and coins came into circulation on January 1st 2002. It was hoped that the Euro would confer many benefits on member countries.

1. **Transaction costs**
   With a single currency, there will be no longer a cost involved in changing currencies; this will benefit tourists and firms who trade within the Euro area. It has been estimated that this benefit will be equal to 1% of GDP so will be quite significant. (This is sometimes known as frictional costs) Some studies have suggested that the Euro has led to a 6%increase in tourism,
2. **Price transparency**
   With a common currency it will be easier to compare prices in different European countries because they would all be in Euros. This enables firms to source cheaper raw material and consumers to buy cheaper goods For example, arguably new car prices are higher in the UK than elsewhere, and a single currency could help reduce these price differentials or make it easier for UK consumers to buy from the Euro zone. Within the Euro zone, there has been a degree of convergence in car prices since the Euro was introduced.
3. **Eliminating exchange rate uncertainty**
   Volatile swings in the exchange rate can destroy the profitability of exports (e.g. a rapid appreciation). This exchange rate uncertainty undermines business confidence in investing. Therefore with a single currency business confidence should improve leading to greater trade and economic growth.
4. **Improvement in inflation performance**
   The ECB which sets interest rates for the whole Euro zone area will be committed to keeping inflation low; countries with traditionally high inflation should benefit from this greater inflationary discipline. EU inflation has been low. However this point is debatable as countries outside the Euro have maintained low inflation, and arguably the ECB have

concentrated too much on low inflation to the detriment of growth and unemployment.

5. **Low interest rates**

   It was hoped membership of the Euro would help reduce bond yields as there was greater security belonging to a stronger currency.

   Initially this occurred with bond yields in Greece, Spain and Ireland converging on German bond yields. But the credit crisis of 2008-12, saw Euro bond yield rise to record levels, suggesting that the Euro could be very destabilizing for interest rates.

6. **Inward investment**

   Inward investment may increase from outside the EU as firms take advantage of lower transaction costs within the EU area. Some firms have said they prefer to invest within the Euro zone area.

7. **Benefits to the financial sector**

   The introduction of the Euro appears to have reduced the cost of trading in bonds, equity, and banking assets within the euro zone.

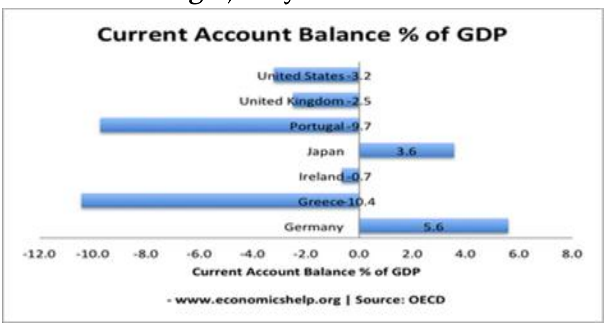
PROBLEMS OF EURO MARKET

1. **Interest rates not suitable for whole Euro zone:** A common monetary policy involves a common interest rate for the whole euro zone area. However, the interest rate set by the ECB may be inappropriate for regions which are growing much faster or much slower than the Euro zone average. For example, in 2011, the ECB increased interest rates because of fears of inflation in Germany. However, in 2011, southern Euro zone members were heading for recession due to austerity packages. The higher interest rates set by the ECB were unsuitable for countries such as Portugal, Greece and Italy.
2. **The Euro is not an optimal currency area:** If a state in the US, such as New York, was in recession, workers in New York could move to New England and get a job. However, in the Euro zone this is much more difficult; it involves moving

country and possibly learning a new language. There are more barriers to the movement of labour and capital within a diverse region like Europe. Therefore, an unemployed Greek can't easily relocate to Germany.

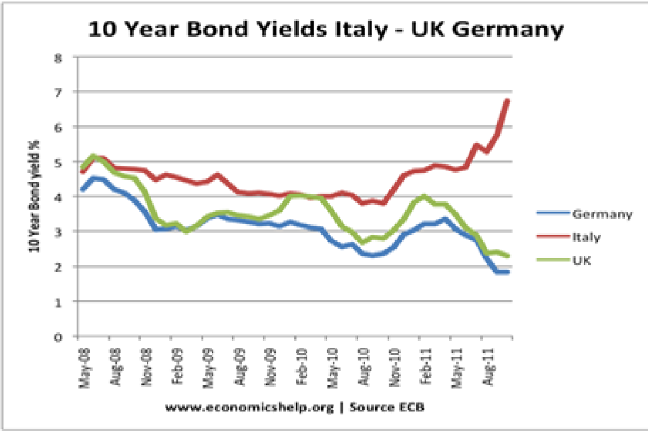
3. **Limits Fiscal Policy:** With a common monetary policy it is important to have similar levels of national debt; otherwise countries may struggle to attract enough buyers of national debt. This is a growing problem for many Mediterranean countries like Italy, Greece and Spain who have large national debts and rising bond yields.
4. **Lack of Incentives:** It is argued that being a member of the Euro protects a country from a currency crisis. Therefore, there is less incentive for countries to implement structural reform and fiscal responsibility.

   For example, in good years Greece was able to benefit from very low bond yields on its debt because people felt Greek debt would be secured by rest of Europe. But, this wasn't the case, and Greece was lulled into a fall sense of security.
5. **No scope for Devaluation:** Since the start of the Euro, several countries have experienced rising labour costs. This has made their exports uncompetitive. Usually, their currency would devalue to restore competitiveness. However, in the Euro, you can’t devalue and you are stuck with uncompetitive exports. This has led to record current account deficits, a fall in exports and low growth. This has particularly been a problem for countries like Portugal, Italy and Greece.

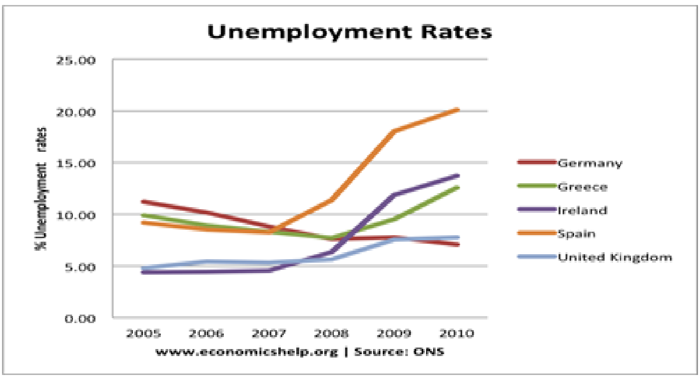


This shows the effects of Euro zone members becoming uncompetitive. Very high current account deficits.

6. **No Lender of Last Resort:** The ECB is unwilling to buy government bonds if there is a temporary liquidity shortage. This makes markets more nervous about holding debt from euro zone economies and precipitates fiscal crisis. Problems of Italy - why Italian bonds increased despite having a much lower budget deficit than UK.



7. **Deflationary Bias:** Deflationary bias in the Euro zone which increases the risk of recession and higher unemployment. Euro zone members have seen a rise in unemployment



8. **Divergence in bank rates**: In theory, the Euro zone creates a common interest rate. However, in the credit crisis of 2010-13, we see rising bank rates for peripheral Euro zone countries, like Italy and Spain. Small and medium sized firms faced higher borrowing costs than in 2005, even though the ECB cut the main base rate. This suggests that the ECB was unable to loosen monetary policy when needed.

PROBLEMS OF UK ECONOMY BY JOINING EURO ZONE

UK economy has additional problems which make joining the Euro a bad idea.

1. Housing market: Many in the UK have a mortgage which is a big % of their disposable income. This is related to the high cost of buying houses in the UK.
2. Variable Mortgages in the UK more homeowners have variable mortgages: These two factors means UK consumers are very sensitive to changes in the base rate. If the ECB kept interest rates higher than the UK needed it would create serious problems in the UK. Arguably to join the UK would need to reform its housing market and reliance on variable mortgages.

COST OF JOINING EURO ZONE

- **Cost of replacing currencies** and adjusting machines, however this is a one off cost.
- **Loss of autonomy over economic policy.** With the ECB setting a common interest rate for the whole area, countries have lost an important part of their monetary policy. This is a major problem if a countries economy is at a different stage in the business cycle. For instance in 2005, Ireland and Spain were growing quite fast and need higher interest rates to control inflation than other countries who need lower interest rates. Therefore with low interest rate Ireland might experience inflation On the other hand, in 2009, Ireland and

Spain were experiencing a deeper recession than the rest of the Euro zone area. They needed lower interest rates and depreciation, but, other countries didn't.

- In 1992 the UK benefited from leaving the ERM in order to have lower interest rates and come out of recession. This showed that countries economy may not have converged and a single policy could be harmful.
- Loss of Devaluation as economic management policy. As well as losing an independent Monetary policy countries cannot use their exchange rate. Business would argue Sterling is overvalued at the moment if we joined the Euro at this rate our exports would be uncompetitive.
- Also governments couldn't devalue the E.R to overcome balance of payments problems.
- **Countries will lose some independence over Fiscal Policy**. This is because of the growth and stability pact.(e.g. no country is allowed to borrow more than 3% of its GDP. This means that they will have to try and maintain the economy at a similar stage to other countries. E.G. Ireland had high growth and was criticized for increasing spending, (which increases AD).
- **Asymmetric Shocks**. If one country experienced an external shock it might need a different response. But this is not possible with a common currency. E.g. German reunification required higher interest rates in order to help reduce inflation but this was not good for many other countries. An oil shock would affect net importers like France more than Norway and the UK who export a lot.
- Monetary Policy will have different effects in different countries. For example the UK is sensitive to changes in the interest rate because many people have mortgages. The EURO has been quite unstable against the dollar, whilst Sterling has been quite stable.
- Joining the EURO could therefore increase E.R. instability against over currencies.

The ECB is less transparent in their decision making, for example they do not produce monthly minutes, and this makes interest rate changes less predictable.

EFFECTS OF EURO DOLLAR MARKET IN INTERNATIONAL FINANCIAL MARKET

Euro-dollar market has affected the international financial system in the following ways:

6. The position of dollar has been strengthened temporarily, since its operation of borrowing of dollars has become more profitable rather than its holdings.
7. It facilitates the financing of balance of payments surpluses and deficits. Especially, countries having deficit balance of payments tend to borrow funds from the Euro-dollar Market, thereby, lightening the pressure of their foreign exchange reserves.
8. It has promoted international monetary cooperation.
9. Over the last decade, the growth of Euro-dollar has helped in easing of the world liquidity problem.

THE EURO-DOLLAR MULTIPLIERS (EDM)

The Euro- dollar market expansionary capacity, that is to say its ability to create deposits in the Eurodollar banking system is measured in terms of the Euro-dollar multipliers.

The Euro-dollar multipliers are worked out as under:

$$\boxed{MSUSD = MSUS + EUROD - R}$$

Indian would be in a better position to enforce its rights.

Where,

MSUSD = Total supply of American Dollar

MSUS = the US money supply, i.e., amount of dollar currency + deposits

EUROD = Euro-dollars deposits RD = bank's reserves deposit ratio

RD is measured as: RD = R. ED and R = RD/EUROD

[R stands for banks reserves deposit ratio. Its value is significant in determining the multiplier | effect]

Further, MSUS + EUROD = world supply of dollar.

RD is subtracted from world dollar supply, to avoid double counting;Euro banks deposit their reserves in the United States banks. Here it is assumed that all dollar reserves deposits are held with the US banks.

Euro- dollar money multiplier is measured thus:

Where, inverse of k, i.e., 1/k represents the Euro deposit leakages. Leakages refer to deposits of money away from Euro market. It follows that when the value of k increases the coefficient of the multiplier (EM) increases and vice versa. Similarly the value EM increases when RD (reserve deposit) ratio increases and vice versa. Hence, when US money supply increases by 2%, the actual rise in money supply of dollar through Eurodollar market tends to be increasing by 2.66%, i.e., greater than the domestic rise of dollar money supply.

EUROPEAN MONETARY UNION (EMU)

The European Monetary Union (EMU) was established in March 1979 for the monetary transactions among the member countries of the European Union (EU). It is to serve as the foundation for single currency.

Following are the main features of the EMU:

1. **European Currency Unit**
   It is regarded to the means for settlement of payments among the central banks of the member nations. The 13th January 2002, Euro currency was introduced, which was adopted by the 12 member countries initially. Today, all 24 countries except Great Britain are using Euro as the common currency.
2. **Exchange Rate Mechanism**
   It facilitated the mechanism for the exchange rates of the currencies of the member countries such as to prevent wide fluctuations in their values, thus, assist them to regulate interest rates and contain inflation

3. **European Monetary Co-operation Fund**
   This is established to act as the clearing house of the central banks of the member nations.
4. **European Investment Banks**
   The Bank is recognized as part of EMU. Its major function is to provide loans and guarantees for the loans raised by the member countries.
5. **European Regional Development Fund**
   This is meant to provide financial assistance for development of background areas of the EU.
6. **European Central Bank**
   It was set up in 1998. Its major function is to maintain price stability and operate single monetary policy for the EU. The ECB and national central banks of the EU together constitute the European System of the central Banks for a better monetary ordering. Its main objects and functions include:
   (a) Determination and implementation of common monetary policy for the EU.
   (b) Conduct of foreign exchange operations.
   (c) Management of payment system
   (d) Promoting Euro System
   (e) Management of changeover from national currencies to Euro
   (f) Advising on monetary issues

YEN MARKET

JAPANESE YEN (JPY)

The currency abbreviation or the currency symbol for the Japanese yen (JPY) is the currency for Japan. The yen is made up of 100 sen or 1000 rin. The yen was originally introduced by the Meiji government as a measure to modernize the country economically. The yen was first seen in 1872, replacing the mon currency of the feudal era. It lost most of its value by the end of World War II and was pegged to the U.S. dollar in 1949. When the U.S. went off the gold standard in 1971, the yen was devalued again and has been a floating currency since 1973, rising and falling against the dollar with the international exchange rates.

INTERNATIONAL ROLE OF YEN

The U.S. dollar is the dominant international currency. The dollar is widely used in international trade contracts, it makes up the bulk of international reserves, and over 80% of the derivative market is dollar-based. The German deutsche mark is second in importance after the dollar, while the Japanese yen is a distant third. Domestic and international currency demands depend on several factors that include: the ease with which currency transactions can be made, the stability of a currency's purchasing power, regulatory oversight of the currency, and the investment opportunities available in the currency. This section reviews each of the factors that influence demand for the yen.

YEN AS A MEDIUM OF EXCHANGE

Information concerning the currency composition of the spot foreign exchange market is not readily available because physical markets for foreign exchange transactions do not exist.

The foreign exchange market is decentralized and data on the volume of global trading are not collected. However, starting in 1989 the central banks of 21 countries began a triennial survey of foreign exchange turnover in the interbank markets in an attempt to estimate global activity in the spot and various derivative markets. According to the BIS surveys, use of yen relative to other currencies has actually declined over the past five years. While use of the dollar has fallen, it is the deutsche mark and other EMS currencies, rather than the yen that have replaced the dollar in some markets. In these markets, major shares of yen turnover are reported (between 14 and 29%), but yen trading accounts for low single percentages in most other markets. Although practically all markets report some turnover in yen trades against domestic currencies, most yen transactions involve the U.S. dollar (85%), the pound sterling (6%) or the deutsche mark (5%). In contrast to London and New York, the range of currencies actively traded in

Tokyo is limited: 76% of all turnovers in Japan involve the yen and the U.S. dollar, up from 67% in 1992. Unsurprisingly, the yen is used most heavily domestically, with the United Kingdom and the United States ranked two and three in terms of total transactions. In percentage terms, however, it is in Singapore and Hong Kong that the yen is used most heavily. Other than in Japan, the yen is always ranked behind the U.S. dollar, and, with the exception of Hong Kong, the yen is also always ranked behind the deutsche mark in terms of total currency transactions in each of the countries.

YEN AS A RESERVE CURRENCY

Central Banks hold foreign reserves to facilitate trade and to affect exchange rates through interventions in foreign exchange markets. The importance of currencies as international media of exchange and stores of value can therefore be inferred from their relative shares in official reserves. The share of yen in official reserve holdings has remained relatively low and stable over the past fifteen years for all countries, and actually fell between 1985 and 1990 in selected Asian countries. The U.S. dollar remains the dominant currency held in aggregate by central banks, and the share of Asian central bank reserves denominated in dollars has risen, not fallen, in recent years.

ROLE OF YEN AS AN INVOICING CURRENCY

Exporters must determine the currencies in which to denominate their prices. Most firms in developed countries choose to invoice exports in domestic currencies. The advantage of this strategy is that the exporter's exchange rate exposure is thereby minimized.

Since invoice prices are not easily changed when exchange rates fluctuate, export prices rise when domestic currencies strengthen relative to currencies of export destinations. To the extent that higher export prices reduce market shares, long-run profits may suffer. This line of reasoning suggests that, under certain demand conditions in foreign countries, invoicing in the currencies of destination countries may be preferable to invoicing in domestic currencies. This strategy of focusing on shares of foreign markets is termed "pricing to market," and it is this strategy that Japanese firms are alleged to follow. This section examines the roles of exchange rates and market structure in the invoicing decisions of Japanese firms.

THE CHOICE OF INVOICING CURRENCY IN THE INTERNATIONAL TRADE

A study of Swedish companies in the 1960s found that the exporter's currency, rather than a common vehicle currency, was most frequently used to denominate international trade contracts. This observation, which is commonly known as Grassman's Law, continues to describe most developed countries other than Japan. Recent empirical studies of international invoicing practices find the following additional patterns: (1) invoicing in the exporter's currency is more likely for differentiated manufactured products; (2) trade between a developed country and a developing country tends to be denominated in the currency of the developed country; (3) trade in primary products and transactions in financial investments are usually denominated in U.S. dollars; (4) exports to the United States tend to be invoiced in U.S. dollars; and (5) currency hedging by importers in forward markets is not common.

RECENT CURRENCY INVOICES PRACTICES AMONG G-6

It is instructive to compare invoicing practices among the G-6 countries in order to place Japan in context. Japan and Italy are outliers in the export panel with the lowest domestic invoice ratios. Whenever the yen appreciates substantially, Japanese exporters scream and the government becomes under pressure to do something. This has been the story many times in the past, and the story is repeating itself now. That raises the question: Why don't Japanese firms invoice their exports in yen to avoid sudden losses of profits? Japan is well known for its unique pattern of trade invoicing.

According to the "stylised facts" on the choice of invoice currency, which are based on 1970s empirical research such as Grassman (1973) and Page (1977), trade between two advanced countries tends to be invoiced in the exporter's currency. Trade between advanced and developing countries are generally invoiced in the advanced country's currency.

Japan's currency invoicing pattern puzzlingly differs from these stylised facts.

- First, Japanese exporters have a strong tendency to choose the importer's currency for their exports to advanced countries such as the US and EU.
- Second, dollar invoicing is prevalent in Japan's exports to Asia. As shown in Figure 1, the share of dollar invoicing is higher than that of yen invoicing in exports to Asia from 2006 to 2009.

MAJOR FUNDING INSTRUMENTS

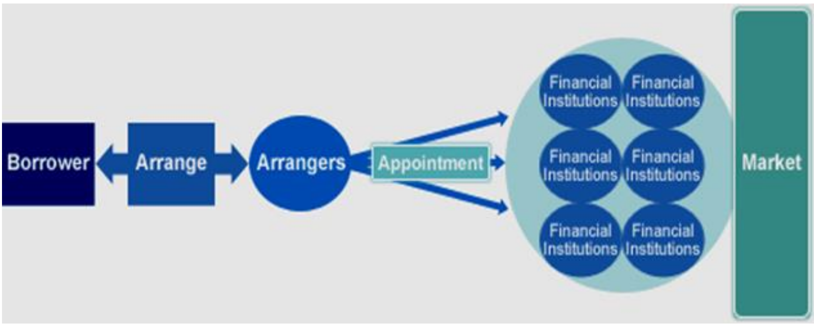
SYNDICATED BANK LOANS

DEFINITION

A loan offered by a group of lenders (called a syndicate) who work together to provide funds for a single borrower. The borrower could be a corporation, a large project, or sovereignty (such as a government). The loan may involve fixed amounts, a credit line, or a combination of the two. Interest rates can be fixed for the term of the loan or floating based on a benchmark rate such as the London Interbank Offered Rate (LIBOR). Typically there is a lead bank or underwriter of the loan, known as the "arranger", "agent", or "lead lender". This lender may be putting up a proportionally bigger share of the loan, or perform duties like dispersing cash flows amongst the other syndicate members and administrative tasks and also known as a "syndicated bank facility".

HOW IT WORKS/EXAMPLE

A project may require too large a loan for a single lender or require a special type of investor or lender with expertise in a particular asset class. For example, a transportation project, such as a high speed rail, may involve a group of investors and lenders, each specializing in a portion of the project, such as rail lines, cars, bridges and tunnels, and signal and control technologies. The whole group is referred to as a syndicate. Not only do the various lenders or investors bring their own expertise to the project, but they also spread the risk among themselves without joint liability, especially among very large, complicated projects. In addition, they enable lenders to handle projects that may exceed their individual capital base.



FEATURES OF SYNDICATED LOAN

1. The borrower finalizes the amount and the currency of the loan required and invites offers from the banks to arrange for finance.
2. Banks who give their quotes for interest rates, fees, etc and undertakes the responsibility of arranging syndication is normally called the lead Bank/Manager/Arranger.
3. Borrower will examine the offers of the various banks and will choose the best available offer, which is best suited to its needs. After deciding or selecting the bank, the borrower gives authority to that bank which acts as the leader to arrange the loan.

4. Then the borrower and the arranger bank will formulate a memorandum of information, giving financial and other details of the co-lender. This is the important document on the basis of which the Arranger will seek participation of other interested banks/ lenders.
5. While seeking/inviting banks to participate in the syndication, the Arranger will have to give details of sharing of fees, securities, etc. and it is expected to share in the proportion of the share to be picked by members in the consortium. In case of any shortfall in the participation of lenders, then the portion of loan is expected to be taken up by the leader of the syndicate.
6. Once the entire tie-up is done and finalized, the borrower and lender finalize the loan agreement and the borrower executes the same.

STAGES OF LOAN SYNDICATION

Broadly there are three stages in syndication, viz., Pre-mandate Stage, Placing the Loan and Disbursement and Post-closure Stage.

1. **Pre-mandate Stage:** This is the initiated by the prospective borrower. It may liaise with a single bank or it may invite competitor's bids from a number of banks. The borrower has to mandate the lead bank, and the underwriting bank, if desired. Once the lead bank is selected and mandated by the borrower, the lead bank has to undertake the appraisal process. The lead banks needs to identify the needs of the borrower, design an appropriate loan structure, and develop a persuasive credit proposal.
2. **Placing the Loan and Disbursement:** At this stage, the lead bank can start to sell the loan in the marketplace i.e. to prospective participating banks. This means that the lead bank needs to prepare an information memorandum, prepare a term sheet, prepare legal documentation, approach selected banks and invite participation. A series of negotiations with the

borrower are undertaken if prospective participants raise concerns. To conclude this stage the lead bank must achieve closing of the syndication, including signing. If need be, underwriting bank has to sign the balance portion of the loan. Loan is disbursed in phases as agreed in the loan contract. Loan is disbursed in 'no-lien' account i.e. a bank account created exclusively to disburse loan. This account and its withdrawals are monitored by banks. This is to ensure that the loan is used only for the purpose defined in the loan agreement and that the funds are not diverted to any other purpose.

3. **Post-closure Stage:** This is monitoring and follow-up phase. It has many times done through an escrow account. Escrow account is the account in which the borrower has to deposit it's revenues and the agent ensures that the loan repayment is given due priority before payments to any other parties. Hence in this stage, the agent handles the day-to-day running of the loan facility.

PARTIES TO A SYNDICATED LOAN AGREEMENT

- **Lead Manager(s)/Arranger(s):** Those who receive an authority from the borrower to form a syndicate for the required loan. Normally it is a bank which is mandated by the prospective borrower and is responsible for placing the syndicated loan with other banks and ensuring that the syndication is fully subscribed. This bank charges arrangement fees for undertaking the role of lead manager.
- Its reputation matters in the success of syndication process as the participating banks would agree or disagree based on the credibility and assessment expertise of this bank. In other words, since the appraisal of the borrower and its proposed venture is primarily carried out by this bank, onus of default is indirectly on this bank. Thus this bank carries 'reputation risk' in the syndication process.
- **Underwriters:** These banks including the lead bank will underwrite the total amount of the facility and will try to get

banks to take up the entire share of loan including them but with no share or even major share. The arranger bank may underwrite to supply the entire unsubscribed portion of the desired loan and in such a case arranger itself plays the role of "underwriting bank". Alternatively a different bank may underwrite (guarantee) the loan or portion (percentage of the loan). This bank would be called the "underwriting bank". It may be noted that all the syndicated loans may not have this underwriting arrangement. Risk of underwriting is obviously the "underwriting risk". It means it will have to carry the credit risk of the larger portion of the loan.

- **Co-Manager:** They have to participate but with a lesser share than that of leader. Co-managers take care of the administrative arrangements over the term of the loan (e.g. Disbursements, repayments and compliance). It acts for and on behalf of the banks. In many cases the arranging/underwriting bank itself may undertake this role. In larger syndication's co-arrangers may be used.
- **Participants:** All those banks/lenders who participate in the syndicated program, as well as the leader/underwriter would try to see that it is fully allocated. These banks charge participation fees. These banks carry mostly the normal credit risk i.e. risk of default by the borrower as like any normal loan. These banks may also be led into passive approval and complacency risk. It means that these banks may not carry rigorous appraisal of the borrower and has proposed project as it is done by the lead manager and many other participating banks. It is this banker's trust that so many high profile banks cannot be wrong. This may be seen in the light of reputation risk of the lead manager.
- **Creator of Memorandum of Information:** Lead Manager/Arranger who will undertake to formulate the memorandum based on the financial and other details of the borrower which function include agreeing to the

memorandum, publishing and arranging and signing the same and the final documentation.

- **Principal Document Loan Agreement:** It is the responsibility of the Lead Manager to get it drafted and get it approved from all participants and is signed by all the participating banks and the borrower. The agreement gives the details of loan or the facility, its nature, amount, purpose, maturity, amortization, draw-down arrangement, interest, all types of fees, warranties, undertakings, law and its justification, default rules, etc.

DIFFERENCE BETWEEN SYNDICATED AND JOINT LOAN

Item	Syndicated Loan	Joint Loan
Inter-bank Relationship	All members join together to contact with borrowers through lead and agency banks.	All banks, independent from each other, contact with borrowers separately.
Approval of Loans	All banks make loan decision on the basis of the information memorandum provided by the lead bank.	All banks collect information separately and go through many rounds of examination.
Loan Contract	There should be Unified contract.	Each bank signs contract with the borrower by itself.
Loan Terms (interest rate, term, guarantee type)	It should be a Unified conditions.	Each bank negotiates with the borrower separately with different terms of loans.
Loan Dispersement	Funds are collectively transferred in agreed proportions via the agency bank.	Loans are dispersed separately with derivative deposits retained at each bank.
Loans Management	In the charge of the agency bank	Management of its own share of loans by each bank.

Recovery of Loan Principal and Interest	The agency bank is responsible for the collection of principal and interest according to the contract and transfer of relevant amounts to designated account of each bank in lending proportions.	Each bank collects principal and interest according to repayment of principal with interest plan separately agreed with its borrowers.

CURRENCY

Syndicated loan mainly adopt RMB. Besides it, USD, EUR, GBP and other currencies are also available. Multiple currencies can be used in a single syndicated loan on demand of the borrower.

TERM

Three to five years for short-term, seven to ten years for medium-term and 10-20 years for long-term loan.

INTEREST RATE

The price of syndicated loan is composed of loan interest and fees. Lending interest rate shall be set, according to different borrowers, in line with lending interest rate policies of the People's Bank of China, lending interest rate regulations of Bank of China and provisions of the syndicated loan contracts.

CHARGES

Charges mainly include arrangement fee, underwriting fee, agency fee, commitment fee.

TARGET CUSTOMERS

1. Borrowers who require long-term and large-amount loan.
2. Borrowers with high reputation in the industry, whose operation ability as well as financial and technical strength are recognized by most banks.

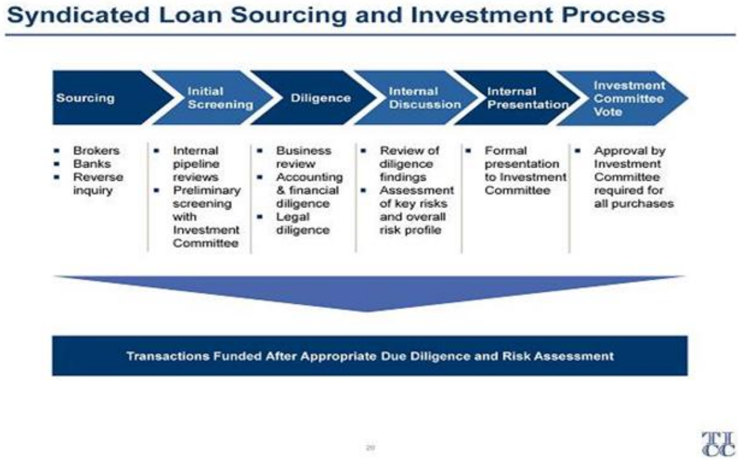
APPLICATION QUALIFICATIONS

1. The borrower should be the legal persons of enterprises and public institutions as well as other economic organizations approved and registered in People's Republic of China.
2. The borrower must be qualified for basic terms and conditions on the borrowers of *Lending General Provisions* as well as crediting management policy issued by the Bank of China.
3. The borrower shall meet requirements of certain level after credit rating by the Bank of China or other recognized rating agency;
4. The borrower shall be large and medium manufacturing enterprises or project companies with sound operation and finance as well as strong competition in respective industries, which shall be promising in the development.
5. The borrower has established a regular and sound partnership with Bank of China Group.
6. In the event of joining the syndicate set up by other banks, the arranger bank shall be a policy bank, state-owned holding bank or foreign bank with sufficient credit and operational strength.

REQUIRED DOCUMENTS

1. Relevant information on the borrower and their Chinese and foreign shareholders and guarantors.
2. Business license and articles of association of the borrower as well as joint venture or cooperation contracts of foreign-funded enterprises and inland associated enterprises.
3. Project proposals, feasibility study reports, engineering estimates and other documents approved by government departments and approval documents, as well as he approval documents on the project provided by administrations of taxation, environmental protection, and customs;
4. Purchase contracts, construction contracts, supply and sale contracts of project equipment.
5. Other documents or information needed by the bank.

PROCESS



1. The sales account manager of Bank of China pays attention to the financing demands of customers.
2. Receive loan information/financing tender documents of customers.
3. Negotiate with customers to draft of the list of loan terms and financing structure.
4. Bank of China is officially appointed by the lead bank and the principal underwriting bank of syndicated loans.
5. Confirmation of the loan amount by Bank of China.
6. Determination of preparation schedule, organizing strategy and invitation list of syndicates.
7. Prepare loan information memorandum and letter of syndicate invitation, and send out the invitation to relevant financial institutions.
8. Subscription amount undertaken by participants.
9. Confirmation of the final loan limit of each loan syndication participant.
10. Parties agree to sign the loan agreement and guarantee agreement.
11. Sign agreements.
12. Work of the agency bank.

CASE

In 2007, in order to acquire Alcal, Rio Tinto Group raised USD 40 billion worth of syndicated loan across the world, Bank of China was the only bank in Asia (except Bank of Japan) that joined the loan syndication as a co-arranger (Lead Arranger) and underwriter. It was the largest syndicated loan project in London market (the fourth largest in the world).

In 2008, Bank of China acted as a arranger, mandated arranger and agency bank during the buyer's USD 592 million worth of syndicated loan for Indonesia Indramayu power plant export project, in which 18 internationally active banks have participated, and the subscribed amount was surpassed by 4.5 times.

In 2008, Bank of China, as the exclusive mandated arranger, successfully prepared the syndicated loan project with USD 600 million for Australia's largest telecom operator, Telstra Corporation, and achieved oversubscription.

BOND

A Bond is an instrument of indebtedness of the bond issuer to the holders. It is a debt security, under which the issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay them interest (the coupon) and/or to repay the principal at a later date, termed the maturity date. Interest is usually payable at fixed intervals (semiannual, annual, and sometimes monthly).

Very often the bond is negotiable, i.e. the ownership of the instrument can be transferred in the secondary market. This means that once the transfer agents at the bank medallion stamp the bond, it is highly liquid on the second market.

FEATURES

- Available on a single or joint life basis (with up to six lives assured)
- Can be used with the trust plans as part of an estate planning solution

- A degree of control over the point at which liability to tax arises, as a person can choose when to take the benefits
- Up to 5% of initial investment can be withdrawn each year tax deferred
- The Investment Bond is set up as a series of individual policy segments designed to give the maximum flexibility
- The minimum number of policy segments is 100 which can be increased in multiples of 100 up to a maximum of 600
- Self assessment friendly. As investment bonds are a non income producing asset, person don't need to report anything to HM Revenue and Customs until a chargeable event occurs (i.e. when all or part of the bond value is realised, for example on death or full or part surrender)
- Set up regular or one off withdrawals

ADVANTAGES

- Bond are a debt security under which the issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay them interest (the coupon) and or repay the principal at a later date, which is termed the maturity.
- The volatility of bonds (especially short and medium dated bonds) is lower than that of equities (stocks). Thus bonds are generally viewed as safer investments than stocks.
- Bonds are often liquid – it is often fairly easy for an institution to sell a large quantity of bonds without affecting the price much.
- Bondholders also enjoy a measure of legal protection: under the law of most countries, if a company goes bankrupt, its bondholders will often receive some money back (the recovery amount).
- There are also a variety of bonds to fit different needs of investors.

DISADVANTAGES

- A bond is an instrument of indebtedness of the bond issuer to the holders. It is a debt security under which the issuer owes the holders a debt and, depending on the terms of the bond, is obliged to pay them interest and possibly repay the principal at a later date, which is termed the maturity.
- Fixed rate bonds are subject to interest rate risk, meaning that their market prices will decrease in value when the generally prevailing interest rates rise.
- Bonds are also subject to various other risks such as call and prepayment risk, credit risk, reinvestment risk, liquidity risk, event risk, exchange rate risk, volatility risk, inflation risk, sovereign risk, and yield curve risk.
- A company's bondholders may lose much or all their money if the company goes bankrupt. There is no guarantee of how much money will remain to repay bondholders.
- Some bonds are callable. This creates reinvestment risk, meaning the investor is forced to find a new place for his money. As a consequence, the investor might not be able to find as good a deal, especially because this usually happens when interest rates are falling.

DIFFERENCE BETWEEN BOND AND STOCK

	Bond	Stock
Kind of Instrument	**Debt**	**Equity**
Meaning	In finance, a bond is a debt security, in which the authorized issuer owes the holders a debt and is obliged to repay the principal and interest	In financial markets, stock capital raised by a corporation or joint-stock company through the issuance and distribution of shares
Centralization	Bonds markets, unlike stock or share markets, often do not have a	Stock or share markets, have a centralized exchange or trading system

	centralized exchange or trading system	
Holders	Bond holders are in essence lenders to the issuer	The stock holders own a part of the issuing company (have an equity stake)
Kind	Securities	Securities
Yield Analysis	Nominal yield, Current yield, Yield to maturity, Yield curve, Bond duration, Bond convexity	Gordon model, Dividend yield, Income per share, Book value, Earnings yield, Beta coefficient
Participants	Investors, Speculators, Institutional Investors	Market maker, Floor trader, Floor broker
Issued By	Bonds are issued by public sectorauthorities, credit institutions, companies and supranational institutions	Stock are issued by corporation or joint-stock companies
Owners	bondholders	stockholders/sharehold ers
Derivatives	Bond option, Credit derivative, Credit default swap, Collateralized debt obligation, Collateralized mortgage obligation	Credit derivative, Hybrid security, Options, Futures, Forwards, Swaps

TYPES OF BONDS

This section describes the various types of bonds that a company might issue.

- **CORPORATE BONDS**

  A company can issue bonds just as it can issue stock. Large corporations have a lot of flexibility as to how much debt they can issue: the limit is whatever the market will bear. Generally, a short-term corporate bond has a maturity of less than five years, intermediate is five to 12 years and long term is more than 12 years.

Corporate bonds are characterized by higher yields because there is a higher risk of a company defaulting than a government. The upside is that they can also be the most rewarding fixed-income investments because of the risk the investor must take on. The company's credit quality is very important: the higher the quality, the lower the interest rate the investor receives. Variations on corporate bonds include convertible bonds, which the holder can convert into stock, and callable bonds, which allow the company to redeem an issue prior to maturity.

- **CONVERTIBLE BONDS**

  A convertible bond may be redeemed for a predetermined amount of the company's equity at certain times during its life, usually at the discretion of the bondholder. Convertibles are sometimes called "CVs."Issuing convertible bonds is one way for a company to minimize negative investor interpretation of its corporate actions. For example, if an already public company chooses to issue stock, the market usually interprets this as a sign that the company's share price is somewhat overvalued.

To avoid this negative impression, the company may choose to issue convertible bonds, which bondholders will likely convert to equity should the company continue to do well.

From the investor's perspective, a convertible bond has a value-added component built into it: it is essentially a bond with a stock option hidden inside. Thus, it tends to offer a lower rate of return in exchange for the value of the option to trade the bond into stock.

- **CALLABLE BONDS**

  Callable bonds, also known as "redeemable bonds," can be redeemed by the issuer prior to maturity. Usually a premium is paid to the bond owner when the bond is called. The main cause of a call is a decline in interest rates. If interest rates have declined since a company first issued the bonds, it will likely want to refinance this debt at a lower rate. In this case, the company will call its current bonds and reissue new, lower-interest bonds to save money.

- **TERM BONDS**
  Term bonds are bonds from the same issue that share the same maturity dates. Term bonds that have a call feature can be redeemed at an earlier date than the other issued bonds. A call feature, or call provision, is an agreement that bond issuers make with buyers. This agreement is called an "indenture," which is the schedule and the price of redemptions, plus the maturity dates. Some corporate and municipal bonds are examples of term bonds that have 10-year call features. This means the issuer of the bond can redeem it at a predetermined price at specific times before the bond matures. A term bond is the opposite of a serial bond, which has various maturity schedules at regular intervals until the issue is retired.
- **AMORTIZED BONDS**
  An amortized bond is a financial certificate that has been reduced in value for records on accounting statements. An amortized bond is treated as an asset, with the discount amount being amortized to interest expense over the life of the bond. If a bond is issued at a discount - that is, offered for sale below its par (face value) - the discount must either be treated as an expense or amortized as an asset. Amortization is an accounting method that gradually and systematically reduces the cost value of a limited life, intangible asset. Treating a bond as an amortized asset is an accounting method in the handling of bonds. Amortizing allows bond issuers to treat the bond discount as an asset until the bond's maturity.
- **ADJUSTMENT BONDS**
  Issued by a corporation during a restructuring phase, an adjustment bond is given to the bondholders of an outstanding bond issue prior to the restructuring. The debt obligation is consolidated and transferred from the outstanding bond issue to the adjustment bond. This process

is effectively a recapitalization of the company's outstanding debt obligations, which is accomplished by adjusting the terms (such as interest rates and lengths to maturity) to increase the likelihood that the company will be able to meet its obligations.

If a company is near bankruptcy and requires protection from creditors, it is likely unable to make payments on its debt obligations. If this is the case, the company will be liquidated, and the company's value will be spread among its creditors. However, creditors will generally only receive a fraction of their original loans to the company.

Creditors and the company will work together to recapitalize debt obligations so that the company is able to meet its obligations and continue operations, thus increasing the value that creditors will receive.

- **JUNK BONDS**

  A junk bond, also known as a "high-yield bond" or "speculative bond," is a bond rated "BB" or lower because of its high default risk. Junk bonds typically offer interest rates three to four percentage points higher than safer government issues.

- **ANGEL BONDS**

  Angel bonds are investment-grade bonds that pay a lower interest rate because of the issuing company's high credit rating. Angel bonds are the opposite of fallen angels, which are bonds that have been given a "junk" rating and are therefore much more risky.An investment-grade bond is rated at minimum "BBB" by S&P and Fitch, and "Baa" by Moody's. If the company's ability to pay back the bond's principal is reduced, the bond rating may fall below investment-grade minimums and become a fallen angel.

BOND VALUATION

The fundamental principle of bond valuation is that the bond's value is equal to the present value of its expected (future) cash flows. The valuation process involves the following three steps: 1. Estimate the expected cash flows. 2. Determine the appropriate interest rate or interest rates that should be used to discount the cash flows. 3. Calculate the present value of the expected cash flows found in step one by using the interest rate or interest rates determined in step two.

DETERMINING APPROPRIATE INTEREST RATES

The minimum interest rate that an investor should accept is the yield for a risk-free bond (a Treasury bond for a U.S. investor). The Treasury security that is most often used is the on-the-run issue because it reflects the latest yields and is the most liquid. For non-Treasury bonds, such as corporate bonds, the rate or yield that would be required would be the on-the-run government security rate plus a premium that accounts for the additional risks that come with non-Treasury bonds. As for the maturity, an investor could just use the final maturity date of the issue compared to the Treasury security.

However, because each cash flow is unique in its timing, it would be better to use the maturity that matches each of the individual cash flows.

COMPUTING A BOND'S VALUE

First, it is essential to find the present value (PV) of the bond's future cash flows. The present value is the amount that would have to be invested today to generate that future cash flow. PV is dependent on the timing of the cash flow and the interest rate used to calculate the present value. To figure out the value, the PV of each individual cash flow must be found. Then, just add the figures together to determine the bond's price.

PV at time T = expected cash flows in period T / (1 + I) to the power T

After calculate the expected cash flows, it is in need to add the individual cash flows:

Value = present value @ T1 + present value @ T2 + present value @T_n

EXAMPLE: THE VALUE OF A BOND

Bond GHJ matures in five years with a coupon rate of 7% and a maturity value of $1,000. For simplicity's sake, let's assume that the bond pays annually and the discount rate is 5%. The cash flow for each of the years is as follows:

Year One = $70
Year Two = $70
Year Three = $70
Year Four = $70
Year Five = $1,070

Thus, the PV of the cash flows is as follows:

Year One = $70 / (1.05) to the 1st power = $66.67
Year Two = $70 / (1.05) to the 2nd power = $ 63.49
Year Three = $70 / (1.05) to the 3rd power = $ 60.47
Year Four = $70 / (1.05) to the 4th power = $ 57.59
Year Five = $1,070 / (1.05) to the 5th power = $ 838.37

Now to find the value of the bond:

Value = $66.67 + $63.49 + $60.47 + $57.59 + $838.37
Value = $1,086.59

HOW DOES THE VALUE OF A BOND CHANGE?

As rates increase or decrease, the discount rate that is used also changes. Let's change the discount rate in the above example to 10% to see how it affects the bond's value.

Example: The Value of a Bond when Discount Rates Change

PV of the cash flows is:

Year One = $70 / (1.10) to the 1st power = $ 63.63
Year Two = $70 / (1.10) to the 2nd power = $ 57.85
Year Three = $70 / (1.10) to the 3rd power = $ 52.63
Year Four = $70 / (1.10) to the 4th power = $ 47.81
Year Five = $1,070 / (1.10) to the 5th power = $ 664.60

Value = 63.63 + 57.85 + 52.63 + 47.81 + 664.60 = $ 886.52

- From the above examples, an important property of PV is that for a given discount rate, the older a cash flow value is, the lower its present value.
- Compute the change in value from an increase in the discount rate used in our example. The change = $1,086.59 - $886.52 = $200.07.
- Another property of PV is that the higher the discount rate, the lower the value of a bond; the lower the discount rate, the higher the value of the bond.

COMPUTING THE VALUE OF A ZERO-COUPON BOND

A zero-coupon bond may be the easiest of securities to value because there is only one cash flow - the maturity value.

The formula to calculate the value of a zero coupon bond that matures *N* years from now is as follows:

Zero Coupon Bond= Maturity value / (1 + I) to the power of the number of years *2

Where I is the semi-annual discount RATE.

COMMERCIAL PAPER

An unsecured, short-term debt instrument issued by a corporation, typically for the financing of accounts receivable, inventories and meeting short-term liabilities. Maturities on commercial paper rarely range any longer than 270 days. The debt is usually issued at a discount, reflecting prevailing market interest rates.

ADVANTAGES

- High credit ratings fetch a lower cost of capital.
- Wide range of maturity provides more flexibility.
- It does not create any lien on asset of the company.
- Tradability of Commercial Paper provides investors with exit options.

DISADVANTAGES

- Its usage is limited to only blue chip companies.
- Issuances of commercial paper bring down the bank credit limits.
- A high degree of control is exercised on issue of Commercial Paper.
- Stand-by credit may become necessary

COMMERCIAL PAPER YIELD

Like treasury bills, yields on commercial paper are quoted on a discount basis—the discount return to commercial paper holders is the annualized percentage difference between the price paid for the paper and the face value using a 360-day year. Specifically, where dy_{CP} is the discount yield, P_f is the face value, P_0 is the price paid, and t is the term length of the paper in days:

$$dy_{CP} = (\frac{P_f - P_0}{P_f}).\frac{360}{t}$$

and when converted to a bond equivalent yield (bey_{CP}):

$$bey_{CP} = (\frac{P_f - P_0}{P_0}).\frac{365}{t}$$

NOTE ISSUANCE FACILITY

Note issuance facility (NIF) is an underwriting agreement/ arrangement in the Euro currency market under which borrowers place short/medium term (one to six months) notes via a syndicate of prime/commercial banks, and the borrowers' issue is backed by the commitment of the syndicate banks to purchase any paper which the borrowers may be unable to sell. Since the facility/ guarantee itself is contingent, the creation of NIF does not give rise to an entry in the financial account and will be treated as an off-balance sheet item in the guarantor books. When the underwriting institution is requested to make funds available, it will acquire the actual asset (notes) and will be recorded in the financial account.

CONCLUSION

While growth is returning, the recovery is uneven and fragile, unemployment in many countries remains at unacceptable levels and the social impact of the crisis is still widely felt. Strengthening the recovery is key. To sustain recovery, we need to follow through on delivering existing stimulus plans, while working to create the conditions for robust private demand. At the same time, recent events highlight the importance of sustainable public finances and the need for our countries to put in place credible, properly phased and growth-friendly plans to deliver fiscal sustainability, differentiated for and tailored to national circumstances.

Those countries with serious fiscal challenges need to accelerate the pace of consolidation. This should be combined with efforts to rebalance global demand to help ensure global growth continues on a sustainable path. Further progress is also required on financial repair and reform to increase the transparency and strengthen the balance sheets of our financial institutions, and support credit availability and rapid growth, including in the real economy. We took new steps to build a better regulated and more resilient financial system that serves the needs of our citizens. There is also a pressing need to complete the reforms of the international financial institutions.

REVIEW QUESTIONS

1. Briefly explain about international equities.
2. Describe short term instruments and medium term instruments.
3. What do you mean by euro market? Explain briefly about the factors contributing to the growth of Euro market.
4. Explain benefits and problems of euro market.
5. Describe effects of euro dollar market in international financial market.
6. Explain Euro Dollar Multiplier.
7. Discuss European monetary fund.
8. Briefly discuss about Yen market.

9. Give a brief account on syndicated bank loans.
10. Difference between syndicated bank loan and Joint loan.
11. Difference between stock and bond.
12. Give a brief account on Bonds.
13. Discuss briefly about commercial paper.

UNIT IV - (I)

EXCHANGE RATE SYSTEM

Objectives

The present chapter deals with the foreign exchange market and the operations therein. In particular, it:.

- Explains the determinants of Exchange rate
- Discuss about the Theories of Exchange rate
- Deals about the Types of Exchange rate System
- States the participants in the foreign exchange market.

FOREIGN EXCHANGE RATE SYSTEM:

Foreign Exchange rate (ForEx rate) is one of the most important means through which a country's relative level of economic health is determined. A country's foreign exchange rate provides a window to its economic stability, which is constantly watched and analyzed. If a person is thinking of sending or receiving money from overseas, need to keep a keen eye on the currency exchange rates.

The exchange rate is defined as "the rate at which one country's currency may be converted into another." It may fluctuate daily with the changing market forces of supply and demand of currencies from one country to another. For these reasons; when sending or receiving money internationally, it is important to understand what determines exchange rates.

DETERMINANTS OF FOREIGN EXCHANGE RATE

1. **Inflation Rate**

   Changes in market inflation cause changes in currency exchange rates. A country with a lower inflation rate than another will look an appreciation in the value of its currency. The prices of goods and services increase at a slower rate where the inflation is low. A country with a consistently lower inflation rate exhibits a rising currency value while a country with higher inflation typically sees depreciation in its currency and is usually accompanied by higher interest rates.

2. **Interest Rates**

   Changes in interest rate affect currency value and dollar exchange rate. Forex rates, interest rates, and inflation are all correlated. Increases in interest rates cause a country's currency to appreciate because higher interest rates provide higher rates to lenders, thereby attracting more foreign capital, which causes a rise in exchange rates.

3. **Country's Current Account / Balance of Payments**

   A country's current account reflects balance of trade and earnings on foreign investment. It consists of total number of transactions including its exports, imports, debt, etc. A deficit in current account due to spending more of its currency on importing products than it is earning through sale of exports causes depreciation. Balance of payments fluctuate exchange rate of its domestic currency.

4. **Government Debt**

   Government debt is public debt or national debt owned by the central government. A country with government debt is less likely to acquire foreign capital, leading to inflation. Foreign investors will sell their bonds in the open market if the market predicts government debt within a certain country. As a result, a decrease in the value of its exchange rate will follow.

5. **Terms of Trade**

   Related to current accounts and balance of payments, the terms of trade is the ratio of export prices to import prices. A country's terms of trade improves if its exports prices rise at a greater rate than its import prices. This results in higher revenue, which causes a higher demand for the country's currency and an increase in its currency's value. This results in an appreciation of exchange rate.

6. **Political Stability & Performance**

   A country's political state and economic performance can affect its currency strength. A country with less risk for political turmoil is more attractive to foreign investors, as a result, drawing investment away from other countries with more political and economic stability. Increase in foreign capital, in turn, leads to an appreciation in the value of its domestic currency. A country with sound financial and trade policy does not give any room for uncertainty in value of its currency. But, a country prone to political confusions may see depreciation in exchange rates.

7. **Recession**

   When a country experiences a recession, its interest rates are likely to fall, decreasing its chances to acquire foreign capital. As a result, its currency weakens in comparison to that of other countries, therefore lowering the exchange rate.

8. **Speculation**

   If a country's currency value is expected to rise, investors will demand more of that currency in order to make a profit in the near future. As a result, the value of the currency will rise due to the increase in demand. With this increase in currency value comes a rise in the exchange rate as well.

TYPES OF FOREIGN EXCHANGE RATE

Some of the major types of foreign exchange rates are as follows:

1. Fixed Exchange Rate System
2. Flexible Exchange Rate System
3. Managed Floating Rate System

- **Fixed Exchange Rate System**

Fixed exchange rate system refers to a system in which exchange rate for a currency is fixed by the government.

1. The basic purpose of adopting this system is to ensure stability in foreign trade and capital movements.
2. To achieve stability, government undertakes to buy foreign currency when the exchange rate becomes weaker and sell foreign currency when the rate of exchange gets stronger.
3. For this, government has to maintain large reserves of foreign currencies to maintain the exchange rate at the level fixed by it.
4. Under this system, each country keeps value of its currency fixed in terms of some 'External Standard'.
5. This external standard can be gold, silver, other precious metal, another country's currency or even some internationally agreed unit of account.
6. When value of domestic currency is tied to the value of another currency, it is known as 'Pegging'.
7. When value of a currency is fixed in terms of some other currency or in terms of gold, it is known as 'Parity value' of currency.

Devaluation and Revaluation

Devaluation refers to reduction in the value of domestic currency by the government. On the other hand, Revaluation refers to increase in the value of domestic currency by the government.

Devaluation vs. Depreciation

Depreciation

Depreciation happens in countries with a floating exchange rate. A floating exchange rate means that the global investment market determines the value of a country's currency. The exchange rate among various currencies changes every day as investors reevaluate new information. While a country's government and central bank can try to influence its exchange rate relative to other currencies, in the end it is the free market that determines the exchange rate. As of 2012, all major economies use a floating exchange rate. Depreciation occurs when a country's exchange rate goes down in the market. The country's money has less purchasing power in other countries because of the depreciation.

Devaluation

Devaluation happens in countries with a fixed exchange rate. In a fixed-rate economy, the government decides what its currency should be worth compared with that of other countries. The government pledges to buy and sell as much of its currency as needed to keep its exchange rate the same. The exchange rate can change only when the government decides to change it. If a government decides to make its currency less valuable, the change is called devaluation. Fixed exchange rates were popular before the Great Depression but have largely been abandoned for the more flexible floating rates. China was the last major economy to openly use a fixed exchange rate. It switched to a floating system in 2005.

- **Flexible Exchange Rate System**

Flexible exchange rate system refers to a system in which exchange rate is determined by forces of demand and supply of different currencies in the foreign exchange market.

1. The value of currency is allowed to fluctuate freely according to changes in demand and supply of foreign exchange.
2. There is no official (Government) intervention in the foreign exchange market.
3. Flexible exchange rate is also known as ‘Floating Exchange Rate’.
4. The exchange rate is determined by the market, i.e. through interactions of thousands of banks, firms and other institutions seeking to buy and sell currency for purposes of making transactions in foreign exchange.

Fixed Exchange Rate System Vs Flexible Exchange Rate System

Fixed Exchange Rates

There are two ways the price of a currency can be determined against another. A fixed, or pegged, rate is a rate the government (central bank) sets and maintains as the official exchange rate. A set price will be determined against a major world currency (usually the U.S. dollar, but also other major currencies such as the euro, the yen or a basket of currencies). In order to maintain the local exchange rate, the central bank buys and sells its own currency on the foreign exchange market in return for the currency to which it is pegged.

If, for example, it is determined that the value of a single unit of local currency is equal to US$3, the central bank will have to ensure that it can supply the market with those dollars. In order to maintain the rate, the central bank must keep a high level of foreign reserves. This is a reserved amount of foreign currency held by the central bank that it can use to release (or absorb) extra funds into (or out of) the market. This ensures an appropriate money supply, appropriate fluctuations in the market (inflation/deflation) and ultimately, the exchange rate. The central bank can also adjust the official exchange rate when necessary.

Flexible Exchange Rates

A flexible exchange rate is determined by the private market through supply and demand. A flexible rate is often termed "self-correcting," as any differences in supply and demand will automatically be corrected in the market. Look at this simplified model: if demand for a currency is low, its value will decrease, thus making imported goods more expensive and stimulating demand for local goods and services. This in turn will generate more jobs, causing an auto-correction in the market. A floating exchange rate is constantly changing.

In reality, no currency is wholly fixed or floating. In a fixed regime, market pressures can also influence changes in the exchange rate. Sometimes, when a local currency reflects its true value against its pegged currency, a "black market" (which is more reflective of actual supply and demand) may develop. A central bank will often then be forced to revalue or devalue the official rate so that the rate is in line with the unofficial one, thereby halting the activity of the black market.

In a flexible regime, the central bank may also intervene when it is necessary to ensure stability and to avoid inflation. However, it is less often that the central bank of a floating regime will interfere.

- **Managed Floating Rate System**

Traditionally, International monetary economists focused their attention on the framework of either Fixed or a Flexible exchange rate system. With the end of Bretton Woods's system, many countries have adopted the method of Managed Floating Exchange Rates. It refers to a system in which foreign exchange rate is determined by market forces and central bank influences the exchange rate through intervention in the foreign exchange market.

1. It is a hybrid of a fixed exchange rate and a flexible exchange rate system.
2. In this system, central bank intervenes in the foreign exchange market to restrict the fluctuations in the exchange rate within certain limits. The aim is to keep exchange rate close to desired target values.
3. For this, central bank maintains reserves of foreign exchange to ensure that the exchange rate stays within the targeted value.
4. It is also known as 'Dirty Floating'.

THEORIES OF EXCHANGE RATE

1. Purchasing Power Parity (PPP)

The PPP states that using a unit of a currency, to say one euro, which is the purchasing power that can purchase the same goods worldwide. The theory is based on the 'law of one price', which argues that should a euro price of a good be multiplied by the exchange rate (€ /US$) then it will result in an equal price of the good in US dollars. In other words, if it assume that the exchange rate between the € and US $ states at 1/1.2, then goods that cost € 10 in the EU should cost US$ 12 in the United States. Otherwise, arbitrage profits will occur. However, it is finally the market that through supply and demand will force accordingly the euro and US dollar prices to the equilibrium point. Thus, the law of one price will be reinstated, as well as the purchase power parity between the euro and US dollar. Inflation differentials between countries will also be eliminated in terms of their effect on the prices of the goods because the PPP will adjust to equal the ratio of their price levels. More specifically, as stated in their book (Lumby S. & Jones C. 1999) "the currency of the country with the higher rate of inflation will depreciate against the other country's currency by approximately the inflation deferential".

In conclusion, it can be argued that the theory, although it describes in a sufficient way the determination of the exchange rates, is not of good value, mainly because of the following two disadvantages. Firstly, not all goods are traded internationally (for example, buildings) and secondly, the transportation cost should represent a small amount of the good's worth.

2. The Balance of Payments (BOP) Approach

The balance of payments approach is another method to determine the supply and demand curves of a country's currency. As it is known from macroeconomics, the balance of payments is a method of recording all the international monetary transactions of a country during a specific period of time. The transactions recorded are divided into three categories: the current account transactions, the capital account transactions, and the central bank transactions. The aforementioned categories can show a deficit or a surplus, but theoretically the overall payments (the BOP as a whole) should be zero – which rarely happens.

As stated earlier, a currency's price depreciation or appreciation (the change in the value of money), directly affects the volume of a country's imports and exports and, consequently, a likely fluctuation in the exchange rates can add to BOP discrepancies. For example, a likely depreciation will increase the value of exports in home currency terms (the larger the exports demand elasticity the greater the increase). Conversely, the imports will become 'more expensive' and their value will be reduced in home currency (the larger the imports demand elasticity the greater the decrease). Consequently, it can be argue that unless the value of exports increases less than the value of imports, the depreciation will improve the current account. More specifically, it can finally assess the impact of the currency's depreciation on the current account only by considering the price sensitivity of imports and exports. The Marshall Lerner Condition shows that if the sum of the price elasticity of demand for imports and exports is greater than one, then a fall in the exchange rate will improve the current account of BOP. Hx + Hm > 1 Hx: Price elasticity of exports volumes Hm: Price elasticity of import volumes.

3. Monetary Approach

In this approach attention is given to the stock of currencies in comparison to the willingness of people to hold these stocks.

According to the monetary theory, exchange rates adjust to ensure that the quantity of money in each currency supplied is equal to the quantity demanded (Parkin M. & King D. 1992).

Both Quantity Theory of Money (QTM) and Purchasing Power Parity (PPP) have been used in support of the aforementioned theory. The QTM states that there is a direct relationship between the quantity of money and the level of prices of goods and services sold (Investopedia.com). In other words, more money equals more inflation. In a domestic framework, the following equation has been formulated.

MV = PY

M: Money supply/demand; V: Velocity of circulation (the number of times money change hands)

P: Average price levels; Y: GDP Finally, to conclude that an increase in the money supply leads to inflation, which in turn results in the decrease in the value of money or purchasing power. The following are the implications: Firstly, a rapid increase in the money supply (in the home currency), which as stated earlier means inflation, will put into effect the PPP resulting in the depreciation of the currency's exchange rate. Secondly, a higher interest rate will also result in the currency's depreciation because of the positive relationship between interest rates and money circulation. Finally, if the GDP grows faster than overseas GDP, the demand for money will increase. Assuming there is a given supply of money, the exchanged rate will decrease, which is in direct contrast to the PPP approach.

4. Portfolio Balance Approach

The portfolio balance approach takes into consideration the diversification of investors' portfolio assets. Diversification is a technique that attempts to reduce risk by investing both among various financial instruments and across national borders, to mention just a few. The following are the combination of domestic and foreign money and domestic and foreign bonds:

Exchange Rate Forecasting

Exchange Rate Forecasting is actually an empirical topic to identify the most important factors. As a result, it can be argue that forecasting exchange rates is a difficult task because of so many factors that might be regarded as determinants. In addition, using formulas (similar to the Interest Rate Parity Theorem) will result in only imprecise estimates of future currencies exchange, basically because the data related to inflation differentials and future spot rates are by themselves only estimates (Lumby S. & Jones C. 1999).

On the other hand, it remains doubtful whether or not the foreign exchange market is an efficient one - since it seems that not all information but only the historical is incorporated in prices (weak form efficiency). The following are some of the main concepts to forecast exchange rates:

- **The Unbiased Expectations Hypothesis**

The concept of the Unbiased Expectations Hypothesis (UEH) argues that the forward rate is an unbiased forecaster of the future spot rate. Thus, the forward rate at time t for maturity at time T must equal the markets expectation at time t for maturity at time T.

FtT = Et (ST)

In addition, the forward price is the expected spot price minus a risk premium to cover likely interest rate differentials.

FtT = Et(ST) - π.

π is the risk premium

- **Unbiased or Biased Predictor**

Finally, the UEH does not give a quite satisfactory reply as to whether or not a forward rate may be a biased predictor of a future spot rate. The following equation represents the ST:

ST = bo + b1 Ft,T + b2 I

St: represents the realized spot rate for the maturity date

FT: represents the forward rate

I: represents any available information that affects the exchange rate

b2: is a statistically significant that represents the market's efficiency if all the information is not incorporated in the forward rate (inefficient market)

Studying historical data, to conclude that in the majority of instances **bo**does not equal to **zero** and the **b1** does not equal to **1**, which means that the forward rate is actually a biased predictor of the future spot rate. Contrarily, both the **bo**and the **b1** have a negative value, demonstrating that there is a risk premium (mentioned earlier) related to the forward rate.

- **Purchasing Power Parity**

  In accordance with the PPP concept, the inflation differentials between countries affect the exchange rate, and consequently the PPP could be of good value in order to forecast the exchange rate. In Cochran & Defina study (Cochran & Defina 1995), they show that the exchange rates, although they deviate from the PPP, they finally return to their PPP levels.

However, during their deviation the possibility of the exchange rates moving backward from or forwards to the PPP remains the same, and consequently the PPP did not prove itself to be a consistent or reliable 'tool' for forecasting.

- **Econometric Models**
  The econometric models in their attempt to forecast the exchange rates take into consideration other factors that are regarded as determinants of the exchange rates. More specifically: inflation, the relative GDP levels, the relative interest rates, and the relative money supply. Although the econometric models perform well in general, can argue that these models do not lead to reliable forecasts because they use in many cases 'past' data. In addition, it can be argued that empirical studies indicate that the ability of such models to forecast is greater in the long term than in the short term.
- **Technical Analysis**
  Forecasting in contrast to the fundamental analysis that considers financial data, the technical analysis analyses diagrams based on past data. More specifically, it accepts the following: The market is efficient (all information is incorporated into the prices). The prices are moved by trend. The history repeats itself. The technical analysis takes into consideration indicators, such as moving averages and oscillators, the volume of transactions, trend lines, and time or price filters, and it combines their trend according to some charting rules. Then in turn the technical analysis tries to identify the future price and anticipate the price patterns in the financial and commodity markets. The applied chartist techniques, either on bar charts or on candlestick charts, lead to more reliable forecasts when dealing with short-term periods.

MAJOR PARTICIPANTS

Commercial companies

An important part of the foreign exchange market comes from the financial activities of companies seeking foreign exchange to pay for goods or services. Commercial companies often trade fairly small amounts compared to those of banks or speculators, and their trades often have little short-term impact on market rates. Nevertheless, trade flows are an important factor in the long-term direction of a currency's exchange rate. Some multinational corporations (MNCs) can have an unpredictable impact when very large positions are covered due to exposures that are not widely known by other market participants.

Central banks

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. Nevertheless, the effectiveness of central bank "stabilizing speculation" is doubtful because central banks do not go bankrupt if they make large losses, like other traders would, and there is no convincing evidence that they do make a profit trading.

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 behaviour 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.

The mere expectation or rumor of a central bank foreign exchange intervention might be enough to stabilize a currency, but aggressive intervention might be used several times each year in countries with a dirty float currency regime. Central banks do not always achieve their objectives. The combined resources of the market can easily overwhelm any central bank. Several scenarios of this nature were seen in the 1992–93 European Exchange Rate Mechanism collapse, and in more recent times in Asia.

Hedge funds as speculators

About 70% to 90% of the foreign exchange transactions conducted is speculative. This means 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. Since 1996, Hedge funds have gained a reputation for aggressive currency speculation. 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' favour.

Investment management firms

Investment management 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.

For example, an investment manager bearing an international equity portfolio needs to purchase and sell several pairs of foreign currencies to pay for foreign securities purchases. Some investment management firms also have more speculative specialist currency overlay operations, which manage clients' currency exposures with the aim of generating profits as well as limiting risk. While the number of this type of specialist firms is quite small, many have a large value of assets under management and, hence, can generate large trades.

Retail foreign exchange traders

Individual retail speculative traders constitute a growing segment of this market with the advent of retail foreign exchange trading, both in size and importance. Currently, they participate indirectly through brokers or banks. Retail brokers, while largely controlled and regulated in the USA by the Commodity Futures Trading Commission and National Futures Association, have in the past been subjected to periodic foreign exchange fraud. To deal with the issue, in 2010 the NFA required its members that deal in the Forex markets to register as such (I.e., Forex CTA instead of a CTA). Those NFA members that would traditionally be subject to minimum net capital requirements, FCMs and IBs, are subject to greater minimum net capital requirements if they deal in Forex. A number of the foreign exchange brokers operate from the UK under Financial Services Authority regulations where foreign exchange trading using margin is part of the wider over-the-counter derivatives trading industry that includes Contract for differences and financial spread betting. There are two main types of retail FX brokers offering the opportunity for speculative currency trading: *brokers* and *dealers* or *market makers*. *Brokers* serve as an agent of the customer in the broader FX market, by seeking the best price in the market for a retail order and dealing on behalf of the retail customer. They charge a commission or mark-up in addition to the price obtained in the market. *Dealers* or *market makers*, by contrast, typically act as principal in the transaction versus the retail customer, and quote a price they are willing to deal at.

Non-bank foreign exchange companies

Non-bank foreign exchange companies offer currency exchange and international payments to private individuals and companies. These are also known as foreign exchange brokers but are distinct in that they do not offer speculative trading but rather currency exchange with payments (i.e., there is usually a physical delivery of currency to a bank account).

It is estimated that in the UK, 14% of currency transfers/payments are made via Foreign Exchange Companies. These companies' selling point is usually that they will offer better exchange rates or cheaper payments than the customer's bank.

These companies differ from Money Transfer/Remittance Companies in that they generally offer higher-value services.

Money transfer/remittance companies and bureaux de change

Money transfer companies/remittance companies perform high-volume low-value transfers generally by economic migrants back to their home country. In 2007, the Aite Group estimated that there were $369 billion of remittances (an increase of 8% on the previous year). The four largest markets (India, China, Mexico and the Philippines) receive $95 billion. The largest and best known provider is Western Union with 345,000 agents globally followed by UAE Exchange

Bureaux de change or currency transfer companies provide low value foreign exchange services for travelers. These are typically located at airports and stations or at tourist locations and allow physical notes to be exchanged from one currency to another. They access the foreign exchange markets via banks or non-bank foreign exchange companies.

CONCLUSION

The analysis of alternative exchange rate systems is that floating exchange rates have a strong advantage over fixed exchange rates, at least in the absence of common currencies. The relative merits of a common currency versus floating exchange rates between multiple currencies hinge on answers to questions posed above. The prediction is that technological change will reduce the importance of a definitive answer sometime before economists can provide one.

REVIEW QUESTIONS

1. Define exchange rate system? Explain the determinants of exchange rate system.
2. Briefly give an account on the types of foreign exchange rate.
3. Difference between devaluation and depreciation

4. Difference between fixed exchange rate and flexible exchange rate
5. Describe the various theories of exchange rate
6. What are all the major participants involved in exchange rate system.
7. What are all the problems faced while forecasting the exchange rates.

UNIT IV - (J)

THE DERIVATIVES MARKET

Objectives

The present chapter deals with the derivatives market and the operations therein. In particular, it:

- explains the distinctive characteristics of derivatives market
- Describes how various types of transactions take place in future, option and swap market.

DERIVATIVES MARKET

Derivatives occupy an important place as a risk reducing machinery. The financial service companies can play a very dynamic role in dealing with such risks. Derivatives, thus, enable the clients to transfer their financial risks to the financial service companies. Derivatives are based upon all those major financial instruments which are explicitly traded like equities, debt instruments, forex instruments and commonly based contracts. The derivatives market is the financial market for derivatives, financial instruments like futures contracts or options, which are derived from other forms of assets. The market can be divided into two, that for exchange-traded derivatives and that for over-the-counter derivatives.

KINDS OF FINANCIAL DERIVATIVES

The important financial derivatives are: 1. Forwards 2. Futures 3. Options 4. Swaps

FORWARDS: Forwards are the oldest of all the derivatives. A forward contract refers to an agreement between two parties to exchange an agreed quantity of an asset for cash at a certain date in future at a predetermined price specified in that agreement. The promised asset may be currency, commodity, instrument etc.

Features: 1. Forward are traded over the counter and not in exchanges. 2. The contracting p arties need not pay any down payment at the time of agreement. 3. It takes place on the date of maturity only as given in the contract, 4. Linearity is another special feature which means symmetrical gains or losses due to price fluctuation of the underlying asset. 5. It is purely private contract, and it cannot be traded on an organized stock exchange. There is no secondary market for it. 6. There is a need for an intermediary to enable the parties to enter into a forward rate contract. 7. The delivery of the asset which is the subject matter of the contract is essential on the date of the maturity of the contract.

FUTURES

A financial contract obligating the buyer to purchase an asset (or the seller to sell an asset), such as a physical commodity or a financial instrument at a predetermined future date and price. Futures contracts detail the quality and quantity of the underlying asset; they are standardized to facilitate trading on a futures exchange. Some futures contracts may call for physical delivery of the asset, while others are settled in cash. The futures markets are characterized by the ability to use very high leverage relative to stock markets.

Futures can be used either to hedge or to speculate on the price movement of the underlying asset. For example, a producer of corn could use futures to lock in a certain price and reduce risk (hedge). On the other hand, anybody could speculate on the price movement of corn by going long or short using futures.

CHARACTERISTICS

1. There are only a small number of actively traded products with futures contracts. The trading unit is large and indivisible.
2. Almost all of the open interest is concentrated in the nearby contract, which has a maturity of no more than three months.

3. The success ratio of new contracts is about 25 per cent in world financial markets. Some new contracts succeed and then, which seem to have similar useful features, fail;
4. Futures are seldom used by farmers. Instead, they are forward contracts. The main users of agricultural futures are intermediaries (dealers) in the marketing process.
5. There are both commercial and non-commercial users of futures contracts in interest rates and foreign exchange. The commercial users are to a large extent dealers: intermediaries in the marketing process.
6. The position of the commercials and dealers in interest rate futures are almost evenly divided between long and short positions.
7. The main use of futures by the commercials is to hedge corresponding cash and forward positions.
8. The positions of the non-commercials are almost entirely speculative positions.
9. In foreign exchange futures, the positions of the commercials are unbalanced. In some currencies they are net short and in others they are net long. However, their positions are primarily hedging against corresponding cash and forward positions.

The non-commercial positions are against corresponding cash and forward positions. The non-commercial positions are overwhelmingly speculative positions; and, finally, futures are used in the underwriting of fixed income securities but not in equity underwriting.

ADVANTAGES

The advantages of trading futures contracts:

1. The commission charges for futures trading are relatively small as compared to other type of investments.
2. Futures contracts are highly leveraged financial instruments which permit achieving greater gains using a limited amount of invested funds.

3. It is possible to open short as well as long positions. Position can be reversed easily.
4. Lead to high liquidity.

DISADVANTAGES

The disadvantages of trading futures contracts:

1. Leverage can make trading in futures contracts highly risky for a particular strategy.
2. Futures contract is standardized product and written for fixed amounts and terms.
3. Lower commission costs can encourage a trader to take additional trades and lead to over-trading.
4. It offers only a partial hedge.
5. It is subject to basis risk which is associated with imperfect hedging using futures.

FUTURES VERSUS FORWARD CONTRACTS

While futures and forward contracts are similar in terms of their final results, a forward contract does not require that the parties to the contract settle up until the expiration of the contract. Settling up usually involves the loser (i.e., the party that guessed wrong on the direction of the price) paying the winner the difference between the contract price and the actual price. In a futures contract, the difference is settled every period, with the winner's account being credited with the difference, while the loser's account is reduced. This process is called marking to the market. While the net settlement is the same under the two approaches, the timing of the settlements is different and can 3 lead to different prices for the two types of contracts.

TYPES OF FUTURES

Depending on the type of underlying asset, there are different types of futures contract available for trading. They are –

- Individual stock futures
- Stock index futures
- Commodity futures

- Currency futures
- Interest rate futures

INDIVIDUAL STOCK FUTURES

Individual stock futures are the simplest of all derivative instruments. Stock futures were officially introduced in India on 9th November 2001. Before that, the local version of stock futures called *'badla'* were traded which was eventually banned by the Securities Exchange Board of India in July 2001.

The Badla system: the *'badla system'* was almost similar to the futures contracts. In simple terms- A badla trader can delay the settlement of a trade by one week for payment of a small fee. So if one bought a particular share for Rs 100 and if they are bullish on that stock, they can delay the settlement by one week if you pay a fee. This carry over can be done for any number of times. Later on, unlimited carry over facility was restricted to 90 days at a time.

Badla system had its downsides – lack of transparency, data regarding volume, rates of badla charges, open positions etc were not available. There was no margin requirement and badla charges varied from seller to seller. So, chances of manipulation were more. Badla was pure Indian version of futures but did not provide the advantages of price discovery or risk management that organized futures market provide.

STOCK INDEX FUTURES

Stock index futures are more useful when speculating on the general direction of the market rather than the direction of a particular stock. It can also be used to hedge and protect a portfolio of shares. So, here the price movement of an index is tracked and speculated. One more point to note here is that, although stock index is traded as an asset, it cannot be delivered to a buyer. Hence, it is always cash settled. For example – the S&P CNX Nifty popularly called the 'nifty futures'. Both individual stock futures and index futures are traded in the NSE.

COMMODITY FUTURES

It's the same as individual stock futures. The underlying asset however would be a commodity like gold or silver. In India, Commodity futures are mainly traded in two exchanges. They are MCX (Multi Commodity Exchange) and NCDEX (National commodities and derivatives exchange). Unlike stock market futures where a lot of parameters are measured, the commodity market is predominantly driven by demand and supply.

The term 'commodity' is a very broad term and it includes –

- Bullion – gold and silver
- Metals – Aluminum , copper, lead, iron, steel, nickel, tin, zinc
- Energy-crude oil, gasoline, heating oil, electricity, natural gas
- Weather- carbon
- Oil and oil seeds – crude palm oil, kapsica khali,refined Soya oil, Soya bean
- Cereals- barley, wheat, maize
- Fiber- cotton, kapas
- Species-cardamom, coriander, termuric etc
- Pluses – chana
- Others- like potatoes, sugar, almonds, gaur

CURRENCY FUTURES

The MCX-SX exchange trades the following currency futures:

- Euro-Indian Rupee (EURINR),
- Us dollar-Indian rupee (USDINR),
- Pound Sterling-Indian Rupee (GBPINR) and
- Japanese Yen-Indian Rupee (JPYINR).

INTEREST RATE FUTURES

Interest rate futures are traded on the NSC. These are futures based on interest rates. In India, interest rates futures were introduced on August 31, 2009.The logic of underlying asset is the same as we saw in commodity or stock futures – in this case, the underlying asset would be a debt obligation – debts that move in value according to changes in interest rates (generally government bonds). Companies, banks, foreign institutional investors, non-resident Indian and retail investors can trade in interest rate futures. Buying an interest rate futures contract will allow the buyer to lock in a future investment rate.

OPTIONS

A financial derivative represents a contract sold by one party (option writer) to another party (option holder). The contract offers the buyer the right, but not the obligation, to buy (call) or sell (put) a security or other financial asset at an agreed-upon price (the strike price) during a certain period of time or on a specific date (exercise date). Call options give the option to buy at certain price, so the buyer would want the stock to go up. Put options give the option to sell at a certain price, so the buyer would want the stock to go down.

ADVANTAGES

- An investor can gain leverage in a stock without committing to a trade.
- Option premiums are significantly cheaper on a per-share basis than the full price of the underlying stock.
- Risk is limited to the option premium (except when writing options for a security that is not already owned).
- Options allow investors to protect their positions against price fluctuations.

DISADVANTAGES

- The costs of trading options (including both commissions and the bid/ask spread) is significantly higher on a percentage basis than trading the underlying stock, and these costs can drastically eat into any profits.
- Options are very complex and require a great deal of observation and maintenance.

- The time-sensitive nature of options leads to the result that most options expire worthless. Making money by trading options is extremely difficult, and the average investor will fail.
- Some option positions, such as writing uncovered options, are accompanied by unlimited risk.

OPTION COMPONENTS

An option for a given stock has three main components: an expiration date, a strike price and a premium. The **expiration date** tells the month in which the option will expire. Options expire one day after the third Friday of the expiration month. The **strike price** is the price at which the holder is allowed to buy or sell the underlying stock at a later date. The **premium** is amount that the holder must pay for the right to exercise the option. Because the holder acquires the right to trade 100 shares, the total cost of the option, if exercised, is 100 times the premium.

In order to relate them to the price of the underlying stock at any given time, options are classified as in-the-money, out-of-the-money or at-the-money. A call option is **in-the-money** when the stock price is above the strike price and **out-of-the-money** when the stock price is below the strike price. For put options, the reverse is true. When the stock price and strike price are equal, both types of options are considered **at-the-money**.

Of course, when calculating profit and loss, the premium, as well as taxes and commissions must be factored in. Therefore, an option must be far enough in-the-money to cover these costs in order to be profitable.

TYPES

Options can be classified in a few ways.

According to the option rights

- Call options give the right—but not the obligation—to buy something at a specific price for a specific time period.
- Put options give the right—but not the obligation—to sell something at a specific price for a specific time period.

According to the underlying assets:

- Equity option
- Bond option
- Future option
- Index option
- Commodity option
- Currency option

According to the trading markets:

- **Exchange-traded options** (also called "listed options") are a class of exchange-traded derivatives. Exchange traded options have standardized contracts, and are settled through a clearing house with fulfillment guaranteed by the Options Clearing Corporation (OCC). Since the contracts are standardized, accurate pricing models are often available. Exchange-traded options include:
    - stock options,
    - bond options and other interest rate options
    - stock market index options or, simply, index options and
    - options on futures contracts
    - callable bull/bear contract
- **Over-the-counter options** (OTC options, also called "dealer options") are traded between two private parties, and are not listed on an exchange. The terms of an OTC option are unrestricted and may be individually tailored to meet any business need. In general, at least one of the counterparties to an OTC option is a well-capitalized institution. Option types commonly traded over the counter include:
    1. interest rate options
    2. currency cross rate options, and
    3. Options on swaps or swaptions.

Other option types

Another important class of options, particularly in the U.S., is employee stock options, which are awarded by a company to their employees as a form of incentive compensation. Other types of options exist in many financial contracts, for example real estate options are often used to assemble large parcels of land, and prepayment options are usually included in mortgage loans. However, many of the valuation and risk management principles apply across all financial options. There are two more types of options; covered and naked.

OPTION STYLES

Naming conventions are used to help identify properties common to many different types of options. These include:

- **European** option – an option that may only be exercised on expiration.
- **American** option – an option that may be exercised on any trading day on or before expiry.
- **Bermudan** option – an option that may be exercised only on specified dates on or before expiration.
- **Asian** option – an option whose payoff is determined by the average underlying price over some preset time period.
- **Barrier** option – any option with the general characteristic that the underlying security's price must pass a certain level or "barrier" before it can be exercised.
- **Binary** option – An all-or-nothing option that pays the full amount if the underlying security meets the defined condition on expiration otherwise it expires worthless.
- **Exotic** option – any of a broad category of options that may include complex financial structures.
- **Vanilla** option – any option that is not exotic.

SWAP

A **swap** is a derivative in which two counter parties exchange cash flows of one party's financial instrument for those of the other party's financial instrument. The benefits in question depend on the type of financial instruments involved. For example, in the case of a swap involving two bonds, the benefits in question can be the periodic interest (coupon) payments associated with such bonds. Specifically, two counterparties agree to exchange one stream of cash flows against another stream. These streams are called the *legs* of the swap. The swap agreement defines the dates when the cash flows are to be paid and the way they are accrued and calculated. Usually at the time when the contract is initiated, at least one of these series of cash flows is determined by an uncertain variable such as a floating interest rate, foreign exchange rate, equity price, or commodity price. The cash flows are calculated over a notional principal amount. Contrary to a future, a forward or an option, the notional amount is usually not exchanged between counterparties. Consequently, swaps can be in cash or collateral.

Swaps can be used to hedge certain risks such as interest rate risk, or to speculate on changes in the expected direction of underlying prices. Swaps were first introduced to the public in 1981 when IBM and the World Bank entered into a swap agreement. Today, swaps are among the most heavily traded financial contracts in the world: the total amount of interest rates and currency swaps outstanding is more than $348 trillion in 2010, according to Bank for International Settlements (BIS).

ADVANTAGES

The advantages of swaps are as follows:

1. Swap is generally cheaper. There is no upfront premium and it reduces transactions costs.
2. Swap can be used to hedge risk, and long time period hedge is possible.
3. It provides flexible and maintains informational advantages.
4. It has longer term than futures or options. Swaps will run for years, whereas forwards and futures are for the relatively short term.
5. Using swaps can give companies a better match between their liabilities and revenues.

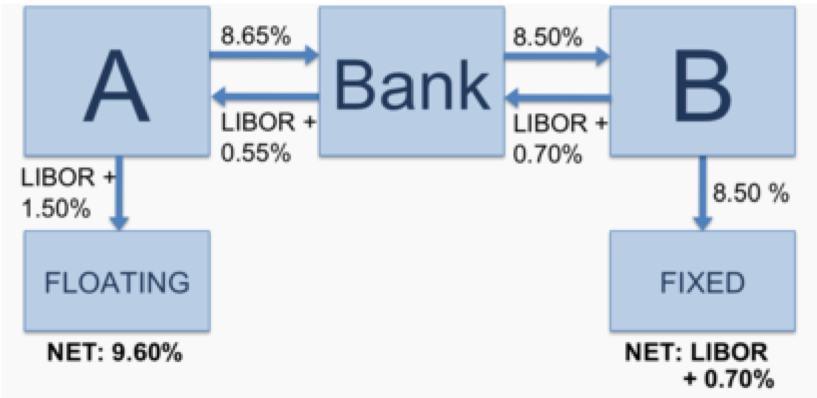
DISADVANTAGES

1. Early termination of swap before maturity may incur a breakage cost.
2. Lack of liquidity.
3. It is subject to default risk.

TYPES OF SWAP

The five generic types of swaps, in order of their quantitative importance, are: interest rate swaps, currency swaps, credit swaps, commodity swaps and equity swaps. There are also many other types of swaps.

- **INTEREST RATE SWAPS**



A is currently paying floating, but wants to pay fixed. B is currently paying fixed but wants to pay floating. By entering into an interest rate swap, the net result is that each party can 'swap' their existing obligation for their desired obligation. Normally, the parties do not swap payments directly, but rather each sets up a separate swap with a financial intermediary such as a bank. In return for matching the two parties together, the bank takes a spread from the swap payments.

The most common type of swap is a "plain Vanilla" interest rate swap. It is the exchange of a fixed rate loan to a floating rate loan. The life of the swap can range from 2 years to over 15 years. The reason for this exchange is to take benefit from comparative advantage. Some companies may have comparative advantage in fixed rate markets, while other companies have a comparative advantage in floating rate markets. When companies want to borrow, they look for cheap borrowing, i.e. from the market where they have comparative advantage.

However, this may lead to a company borrowing fixed when it wants floating or borrowing floating when it wants fixed. This is where a swap comes in. A swap has the effect of transforming a fixed rate loan into a floating rate loan or vice versa.

For example, party B makes periodic interest payments to party A based on a *variable* interest rate of LIBOR+70 basis points. Party A in return makes periodic interest payments based on a fixed rate of 8.65%. The payments are calculated over the *notional* amount. The first rate is called *variable* because it is reset at the beginning of each interest calculation period to the then current reference rate, such as LIBOR. In reality, the actual rate received by A and B is slightly lower due to a bank taking a spread.

- **CURRENCY SWAPS**
  A currency swap involves exchanging principal and fixed rate interest payments on a loan in one currency for principal and fixed rate interest payments on an equal loan in another currency. Just like interest rate swaps, the currency swaps are also motivated by comparative advantage. Currency swaps entail swapping both principal and interest between the parties, with the cash flows in one direction being in a different currency than those in the opposite direction. It is also a very crucial uniform pattern in individuals and customers.
- **COMMODITY SWAPS**
  A commodity swap is an agreement whereby a floating (or market or spot) price is exchanged for a fixed price over a specified period. The vast majority of commodity swaps involve crude oil.
- **SUBORDINATED RISK SWAPS**
  A subordinated risk swap (SRS), or equity risk swap, is a contract in which the *buyer* (or equity holder) pays a premium

to the *seller* (or silent holder) for the option to transfer certain risks. These can include any form of equity, management or legal risk of the underlying (for example a company). Through execution the equity holder can (for example) transfer shares, management responsibilities or else. Thus, general and special entrepreneurial risks can be managed, assigned or prematurely hedged. Those instruments are traded over-the-counter (OTC) and there are only a few specialized investors worldwide.

- **OTHER VARIATIONS**

  There are myriad different variations on the vanilla swap structure, which are limited only by the imagination of financial engineers and the desire of corporate treasurers and fund managers for exotic structures.

  - A **total return swap** is a swap in which party A pays the *total return* of an asset, and party B makes periodic interest payments. The total return is the capital gain or loss, plus any interest or dividend payments. If the total return is negative, then party A receives this amount from party B. The parties have exposure to the return of the underlying stock or index, without having to hold the underlying assets. The profit or loss of party B is the same for him as actually owning the underlying asset.
  - An option on a swap is called a **swaption**. These provide one party with the right but not the obligation at a future time to enter into a swap.
  - A **variance swap** is an over-the-counter instrument that allows one to speculate on or hedge risks associated with the magnitude of movement, a **CMS**, is a swap that allows the purchaser to fix the duration of received flows on a swap.
  - An **Amortizing swap** is usually an interest rate swap in which the notional principal for the interest payments declines during the life of the swap, perhaps at a rate tied to the prepayment of a mortgage or to an interest rate benchmark such as the LIBOR. It is suitable to those

customers of banks who want to manage the interest rate risk involved in predicted funding requirement, or investment programs.

- A **Zero coupon swap** is of use to those entities which have their liabilities denominated in floating rates but at the same time would like to conserve cash for operational purposes.
- A **Deferred rate swap** is particularly attractive to those users of funds that need funds immediately but do not consider the current rates of interest very attractive and feel that the rates may fall in future.
- An **Accrediting swap** is used by banks which have agreed to lend increasing sums over time to its customers so that they may fund projects.
- A **Forward swap** is an agreement created through the synthesis of two swaps differing in duration for the purpose of fulfilling the specific time-frame needs of an investor. Also referred to as a forward start swap, delayed start swap, and a deferred start swap.

VALUATION

The value of a swap is the net present value (NPV) of all estimated future cash flows. A swap is worth zero when it is first initiated, however after this time its value may become positive or negative. There are two ways to value swaps: in terms of bond prices, or as a portfolio of forward contracts.

USING BOND PRICES

While principal payments are not exchanged in an interest rate swap, assuming that these are received and paid at the end of the swap does not change its value. Thus, from the point of view of the floating-rate payer, a swap is equivalent to a long position in a fixed-rate bond (i.e. *receiving* fixed interest payments), and a short position in a floating rate note (i.e. *making* floating interest payments):

$V_{\text{swap}} = B_{\text{fixed}} - B_{\text{floating}}$

From the point of view of the fixed-rate payer, the swap can be viewed as having the opposite positions. That is,

$V_{\text{swap}} = B_{\text{floating}} - B_{\text{fixed}}$

Similarly, currency swaps can be regarded as having positions in bonds whose cash flows correspond to those in the swap. Thus, the home currency value is:

$V_{\text{swap}} = B_{\text{domestic}} - S_0 B_{\text{foreign}}$, where B_{domestic} is the domestic cash flows of the swap, B_{foreign} is the foreign cash flows of the LIBOR is the rate of interest offered by banks on deposit from other banks in the euro currency market. One-month LIBOR is the rate offered for 1-month deposits, 3-month LIBOR for three months deposits, etc.

LIBOR rates are determined by trading between banks and change continuously as economic conditions change. Just like the prime rate of interest quoted in the domestic market, LIBOR is a reference rate of interest in the international market.

ARBITRAGE ARGUMENTS

As mentioned, to be arbitrage free, the terms of a swap contract are such that, initially, the NPV of these future cash flows is equal to zero. Where this is not the case, arbitrage would be possible. For example, consider a plain vanilla fixed-to-floating interest rate swap where Party A pays a fixed rate and Party B pays a floating rate.

In such an agreement the *fixed rate* would be such that the present value of future fixed rate payments by Party A are equal to the present value of the *expected* future floating rate payments (i.e. the NPV is zero). Where this is not the case, an Arbitrageur, C, could:

1. assume the position with the *lower* present value of payments, and borrow funds equal to this present value
2. meet the cash flow obligations on the position by using the borrowed funds, and receive the corresponding payments - which have a higher present value

3. use the received payments to repay the debt on the borrowed funds
4. Pocket the difference - where the difference between the present value of the loan and the present value of the inflows is the arbitrage profit.

Subsequently, once traded, the price of the Swap must equate to the price of the various corresponding instruments as mentioned above. Where this is not true, an arbitrageur could similarly short sell the overpriced instrument, and use the proceeds to purchase the correctly priced instrument, pocket the difference, and then use payments generated to service the instrument which he is short.

CONCLUSION

While derivatives are interesting to use, it can be like fire in the hands of a child when a novice investor who does not understand the intricacies involved decides to make use of it. It is a very quick way to make some quick bucks in a short time and also a quicker way to lose a lot of money within the same time frame. The returns attributable to options are not uniform like that of stocks and bonds. It is quite difficult to get the true risks associated with these strategies. The measured risks in the form of standard deviation may be falsely low when the returns are skewed either positively or negatively and outliers have not occurred as is normal using these strategies. What this means is that people who use options may claim to have superior returns as often seen when they make a lot of small positive returns that may be wiped out by a single large negative return. Others may claim less than average returns that are usually small and in large numbers that may also be offset by one large positive return.

REVIEW QUESTIONS

1. Discuss briefly about future market and explain its advantages and disadvantages.
2. State the different types of futures.
3. Discuss briefly about options.
4. Explain various types of options.

5. Discuss option styles.
6. Describe swap market.
7. Give a brief discussion on types of swap.
8. Discuss valuation using bond prices.

UNIT V - (K)

GLOBALISATION

Objectives

- To narrate the detail information on global economy and its crisis.
- To focus on inequality at the global level.

OLD AND NEW GLOBALISATION

People are not pure intellects, not even scholars. They have various feelings, interests and experiences which condition to grasp of ideas. Every word may mean much more than might be supposed from definitions given in either dictionaries or academic papers. This is particularly important to remember when confronted with a word like "globalization." The word "globalization" itself, apart from its eventual corresponding reality, has become a social phenomenon. The ideas normally related to the term were already well-known realities before the term "globalization" became a sociological factor with its own life in the mass-media and every manner of scholarly circle. It is a key term indicating that one is acquainted with current world news as well as prepared for the future. Scholars from a broad range of scientific, technological and professional backgrounds produce many papers and books about the term. It possesses a hypnotizing power, for not only is it politically-correct, but it has also become an unavoidable expression for any social, political, economic and ethical explanation of the present day.

Such frequent usage of the term does not imply a common and clear notion of "globalization," nor of the generally accepted appraisal of reality that it presumes. The continuous usage of the word constitutes a further difficulty for its understanding, as it becomes a buzzword that tends to use its rationalized meaning. The greatest hindrance to its understanding is its assumption as an all-embracing term that can explain all possible facts; such is the hypnotic effect of "globalisation." In this regard, the least reliable are those who take for granted that there is only one meaning for the term. They usually use it in the most optimistic sense because of ideological interests or naivete, and try to explain and justify by it every social, political and economic fact. In this case they hardly explain anything well and consequently create marked confusion.

In doing this analysis a person need a proper understanding of the conceptual issue surrounding globalization. Its popularity surpasses that of other currently fashionable terms like "end of history," "new age," "global village" or "postmodernism," all of which appear to be allies of "globalisation" in the configuration of a "new world."

Besides, the term is being used to come to the rescue of some old terms like "free market," "liberalization" or "progress." "Globalisation" is the melting pot of a number of terms that might in the end be more significant, which hide behind the facade of this term for their marketing purposes. There is a dogmatic fatalism supporting capitalist globalization which asserts that "there is no alternative." This is the "*pensamiento único*," or "one-sided thinking" denounced by Mediterranean thinkers, expressed by TINA as its coined acronym. The thinkers have already warned of the widespread tendency to consider "globalization" in one exclusive connotation. Many who share this tendency are political and economic leaders with a supporting chorus of scholars.

Although the description of this thinking can be more subtly or diplomatically expressed, TINA consists basically of:

- the triumph of a sort of alleged "free" worldwide market dominated by large corporations;
- the consequent strong reduction of the state to a police function;

- the ensuring fragmentation of political entities and the emergence of a new regionalism and localism;
- the prevalence of a virtual and speculative economy over productive and real economy;
- transnational capitalism as the regulative framework of any legitimate democracy;
- the submission of social values and education to the demands of a planet-wide competition determined by technology and commercial strategies;
- dissolution of any traditional moral and religious conviction under the arbitrary and light style of the "new age" and "postmodernism;"
- the consumerist uniformity or the "McDonalization" of customs and lifestyles.

"Deregulation," "privatization," "competition," "efficiency," "liberalization" or "flexibility," which seemingly justify every economic and political decision, have become popular mantras among reform-minded officials and professional politicians. Other questions are the degree of novelty and the consequences, negative or positive, of such features, that is, the challenges, risks and opportunities involved.

A real globalisation ought not to be interpreted merely under such a one-sided mentality for even in this quite lineal way of thinking complexity arises. First, complexity comes up as interdisciplinary. Economy is much more than the economy, especially in terms of a macroeconomic system. Supporters of globalisation hasten to emphasize the cultural, ethical and political aspects of globalization.

They are right; it could not be otherwise consequently, a series of different disciplines is necessary to obtain a complete picture of globalization: we should at least consider the phenomenon in terms of anthropology, history, ethics, politics, economy, sociology, psychology, theology, pedagogy and communications sciences, etc.

Theoretical as it is, globalisation entails in practice a wide problem of governance. J.-F. Richard, the World Bank's Former Vice-President for Europe, presents as necessary a "more profound rethinking of planetary governance in the light of the two big forces at the heart of this increasing complexity." The two forces are the demographic growth, provoking environmental and social stresses, and "the radically different world economy," in terms of technological and commercial globalisation. Richard would do well to check more accurate demographic information in order to banish his demographic dread. But Richard takes the right view in assuming an active role for politics in the control of economic globalization. Globalisation is also political and is to be governed through the collaboration of "public, private and civil society players."

A REAL GLOBALISATION AGAINST CAPITALIST GLOBALISM

The term globalisation has spread from the dominating Anglo-Saxon culture that serves today as the main center of capitalism. Many Mediterranean and other Latin scholars prefer to speak of *mundialización* ("mondialisation," "*mondializzazione*"). Some authors like Alain Touraine distinguish between "globalization," meaning the pernicious aspects of the current international relations, and "mondialisation," indicating the historical trend which is to be accomplished. The dispute between the editorialists of *The Financial Times* of London and *Le Monde diplomatique* of Paris (1997) was illustrative of respective positions regarding "globalisation" enthusiastic and critical.

At the outset of the analysts tried to reflect more acutely on the different ways of understanding and fostering that event recently called "globalisation" and "mondialisation." Whatever term a person, use to contemplate the convergence of humanity towards living together ever more closely which involves more justice and humanism throughout the world. Such a profound convergence, simultaneously a heritage and a challenge, cannot be reduced to the expansion of capitalist international trade. Ultimately, the current mode of capitalism, as it recovers its capitalist purity, is quite harmful for true globalisation. Likewise and paradoxically, capitalism has a noxious effect on a truly free market. Real freedom in capitalism is a privilege of the large capitalists.

Hence, one can distinguish between the transnational expansion of capitalism and a real, deep globalisation or universalism; and between "capitalist globalisation" or "globalism" and an authentic free market. Freedom, in every field and particularly in markets, is not so straightforward as to be able to work in accordance with a simple mechanism. The reason for still working in the markets is remnants of some elements of a free market, despite the oligopolistic tendency of capitalism. As things stand, a genuine and new globalisation is a real possibility rather than a well-established reality. Following are some of the steps, hopes and achievements.

STEPS, HOPES AND ACHIEVEMENTS CENTERED ON THE PERSON

According to J. M. Keynes, talking about the crisis of 1929, when financial capital obtained so predominant a position, the only way to save economic and political democracy was the eradication of financial capital. So radical a solution may never be possible, but at the very least, a political and ethical control of finances should be deemed necessary. The person needs freedom from the withering financial speculation orchestrated by a few international agents. It is unwise to sign a blank check to central banks pretending to embody a scientific economic orthodoxy unpolluted by politics. This is the worrysome scenario surrounding certain activities of the European Central Bank. In any case, central banks themselves are feeble in the face of stock market flows or "casino capitalism." The Quantum Fund, led by G. Soros, made the pound sterling remain outside the European Monetary System in 1992. The crash of long-term capital management in the US brought to the public eye the clandestine maneuvers of privileged hedge funds. A concrete measure which is planned is the Tobin Tax, a moderate tax on all financial transactions. Just 0.1 percent would be double and needed in one year for eradicating extreme poverty in the world.

But taxes like this one or the well known 0.7 percent are not the definitive and fundamental solution. An entirely new system centered on the person and not on capital has to be built. That is the reason generic proposals like “participative capitalism" or "responsible capitalism” though attractive, are contradictions in terms. Participation and responsibility cannot be found in money, but in the person as the main author of development. "Participative capitalism" may mean is the synthesis of the ideas of free market and of popular participation or democracy. However, this is not capitalism. Capitalism has been partly corrected in its symptoms, but not cured. It is incurable.

Beside Keynes's surgical solution and other initiatives already mentioned, many scholars are asking for new world social contract. These proposals are still completely generic. They do not appear to imply the academic opposition between contractarian and natural law theories.

As to envisage and just aim at the need of a worldwide egalitarian dialogue, leading to a universal agreement to assure and to generalize social conquests of the welfare state -- presumably not on a traditional state basis. In fact, all those who face both the dangers and the opportunities of the new international situation unanimously agree about the incapacity of any single nation to cope with the new global order on its own. One by one, every more-or-less isolated nation is going to be the "lunch" of capitalist globalism. On the contrary, grouped together in a sincere close collaboration, nations may have a better "lunch" than ever.

For this purpose one of the logical first steps is integration within international cultural families. If cultures are to integrate themselves with each other, they need to start cultivating a sense of great community within their cultural families. Until now, the only successful cultural family, as proposed here, is the Anglo-Saxon one. This partnership is one of the reasons behind British-American predominance in the world. Other communities are trying to share their historical ties more consciously, for example, the Ibero-American (better known in English as "Latin-American," but including Portugal and Spain), and the Arabic communities. But now, they have difficulties overcoming their differences.

Some interesting proposals have been put forward by O. Blanchette (cf. *ibid.*, pp. 25-26). He finds that some are resisting the cultural invasion of large corporations in the US. Consumer advocates like Ralph Nader set free from depending simply on the assurances of the huge firms of their own accord. Environmentalists are also carrying a nucleus of resistance against the destruction of nature carried out by the same corporations. The efforts of the labour movement around the world have to be unified. Finally, Blanchette apprises all sorts of activists, individuals as well as the famous nongovernmental organizations (NGOs).

Much hope is being placed on the ambiguously termed "nongovernmental organizations." Their valuation cannot be uniform because they are too different from each other. Generally speaking, the recent movement of NGOs represents the official recognition of the figure of the volunteer as the established ethical conscience within consumerist societies. The typical figure of the volunteer is to be understood in contrast to that of the militant. While the volunteer is predominantly oriented to assistance and to a definite problematic area, the militant prioritizes radical transformation of unjust structures in a broad outlook. To assist people in need is a duty. Mere palliative aid (to say "palliativism," *asistencialismo* in Spanish) reinforces unjust structures by mitigating and massaging a number of their symptoms.

Some of these organizations are experiencing important renewal in their areas and adopt a certain form of critical approach. Many others are not even financially independent from government or lobbies. By and large, NGOs are well integrated into the capitalist system. Though they may be critical of some aspects of capitalism, they willingly accept the basic rules of the game. What is more, they have absorbed and domesticated almost all militant and revolutionary energies in consumerist societies. The use of terms like "revolution" has increased a demagogic culture. In a way, capitalist globalisation is being proclaimed as the new and definitive revolution. Rather, it embodies an extinction of the revolutionary spirit, and for this purpose most NGOs support it.

Nonetheless, some achievements give encouragement. The end of the negotiations on the Multilateral Agreement on Investments shows the efficacy of new strategies of social commitment. The co-ordinate mobilization of numerous groups of different associations and skillful usage of the internet has proved to work on this occasion. Economic freedom does lie not only in trade freedom or the free market. It comprises the entire economic life, production, distribution and consumption. In this regard the successful and consolidated experiences of employee-shared ownership are a sign of hope. In the international arena this principle is a key for a real relief of the implacable external debt of impoverished countries. It cannot expect any relief from international agencies like the International Monetary Fund, the World Bank or the World Trade Organization. They operate under criteria such as: "Relief will remain linked to good policy and performance" ("Relieving Debt," in *The Financial Times*, 22nd-Jan., 1999, p. 23). These capitalist organizations attempt to impose what they consider to be an orthodox policy in exchange for some loan which will increase indebtedness. The only viable and right solution for so many millions of people rests on the cancellation of the debt, as proposed by the campaign "Jubilee 2000".

Employee-ownership, as well as liberation from an oppressive debt, point to the social economy as the fulfillment of economic democracy. A. C. Morales Gutiérrez chooses six principles for an alternative system to the unilateral dominion of the state or of the market: (1) a modified but not eliminated welfare state, intended to free us from economic arbitrariness and insecurity; (2) less state in return for more participation and more market in return for more opportunities; (3) a complete juridical framework, regulating limits and conditions of the market; (4) exemplarity of the state in observing the law; (5) the importance of beliefs, values and customs with constant reference to human rights and to civic solidarity; (6) the efficacy of economic democracy, of hybrid and alternative ways.

J. Rifkin focuses economic and even political democracy on social economy. Economy can no longer be reduced to market and state. Market, state and social economy is to be in perfect balance, social economy being the oldest and most important. A new political force will be required as the support of social economy. Such a force is designed to demand proper investments of a part of the benefits from the market and the public sector and is expected to consist of the millions of people volunteering for social service.

INEQUALITIES AT THE GLOBAL LEVEL

Nearly 12 years ago when world leaders adopted the Millennium Declaration, they made an unprecedented commitment to create a more equal and just world, recognizing equality and solidarity as essential to international relations in the twenty-first century. The Millennium Development Goals (MDGs), which emerged as practical and measurable articulation of the Millennium Declaration, have enjoyed sustained interest and support from governments, the global development community, civil society and other stakeholders.

Admirable progress has been made in many areas. For example, in aggregate terms, the global goal on access to safe drinking water has been met five years ahead of schedule and poverty rates as well as the number of absolute poor have declined. Despite many of the successes of the MDGs, they have not managed to integrate all principles outlined in the Millennium Declaration, including equality. Furthermore, the MDGs' focus on national and global averages and progress can mask much slower progress or even growing disparities at the sub-national level and among specific populations.

To the extent that accelerating progress towards some targets is easier when resources are concentrated among the better off, the era of the MDGs may have inadvertently seen some channeling of resources away from the poorest population groups or from those that are already at a disadvantage because of the effects of discrimination based on their gender, General Assembly Resolution, A/RES/55/2, United Nations Millennium Declaration (New York, 2000)United Nations Children's Fund and World Health Organization, Progress on Drinking Water and Sanitation. The World Bank's estimates poverty, ethnicity, disability or residence in the developing countries. At the very least – and with the exception of the MDG target on girls' education -- they have not given a clear enough incentive for policy-makers to proactively address inequalities.

Redressing such discrimination and inequalities will be essential, if global opportunities for progress are to be shared by those most in need of its benefits. The availability of data disaggregated by wealth quintile, sex and residence provides ample evidence on how the combination of these factors has led to uneven progress towards achieving the MDGs. Young children in the poorest households are 2-3 times as likely to die or to be malnourished as those in the best-off strata.

For example, in India 60% of children in households in the lowest wealth quintile are stunted in comparison to 25% of children belonging to the highest wealth quintile. Progress in reducing stunting in this and other countries has been fastest among better-off households. Stunting is the result of chronic nutritional deficiencies in the first 1000 days of life and can result in lifelong impaired physical and cognitive functionality. Gender inequalities persist in many countries and contexts.

INCOME INEQUALITY

Inequality is one of the key challenges of our time. Income inequality specifically is one of the most visible aspects of a broader and more complex issue, one that entails inequality of opportunity and extends to gender, ethnicity, disability, and age, among others. Ranking second in last year's Outlook, it was identified as the most significant trend of 2015 by our Network's experts. This affects all countries around the world. In developed and developing countries alike, the poorest half of the population often controls less than 10% of its wealth. This is a universal challenge that the whole world must address.

While it is true that around the world economic growth is picking up pace, deep challenges remain, including poverty, environmental degradation, persistent unemployment, political instability, violence and conflict. These problems, which are reflected in many parts of this report, are often closely related to inequality.

In developed and developing countries alike, the poorest half of the population often controls less than 10% of its wealth.

The inherent dangers of neglecting inequality are obvious. People, especially young people, excluded from the mainstream end up feeling disenfranchised and become easy fodder of conflict. This, in turn, reduces the sustainability of economic growth, weakens social cohesion and security, encourages inequitable access to and use of global commons, undermines our democracies, and cripples our hopes for sustainable development and peaceful societies.

How has the percentage share of national income of the richest 1% changed over time?

According to the 2014 Pew Global Attitudes Survey, in the seven Sub-Saharan African nations polled over 90% of respondents regard the gap between rich and poor as a big problem; in the United States, almost 80% do. Political leaders increasingly share these concerns. We are already seeing better policies in some countries, such as Rwanda, Brazil and Mexico, where access to resources are being shared more evenly, and where effective targeting for cash transfers have changed behaviours and bolstered progress in the lives of marginalized groups. But to do this on a larger scale will require stronger national institutions in many countries, adequate resources, more responsive leadership, and better policy making. Some countries have made progress in addressing the structural drivers of inequalities through a range of equity-focused and rights-based policy, legal and programme initiatives, which they have kept in place over time.

Which region will be most affected by deepening income inequality in the next 12-18 months?

The role of business cannot be overstated in the drive towards greater equality. Data from Pew shows people tend to believe governments are responsible for the wealth gap – but governments cannot solve the problem on their own. Addressing inequality is not only a responsibility but also an opportunity. Addressing inequality is good for business as it creates a new demographic of consumers, thus widening the market for profits and services and increasing profit opportunities, especially for women. Efforts to reduce inequalities and achieve inclusion are a multistakeholder responsibility which will require concerted action at all levels, from local to national, and regional to global.

COUNTRIES	INCOME INEQUALITY LEVEL
NORTH AMERICA	18%
LATIN AMERICA	18%
EUROPE	12%
MIDDLE EAST AND NORTH AFRICA	14%
SUB-SAHARAN AFRICA	13%
ASIA	25%

GLOBAL INEQUALITY

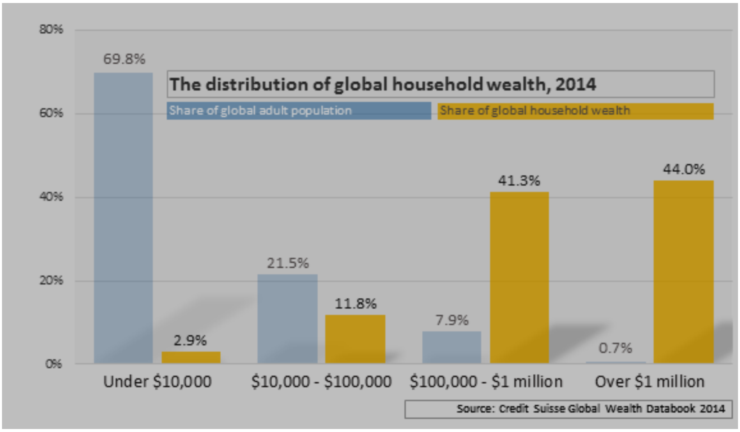
Tracking levels of world inequality can pose a variety of statistical challenges for researchers. Different nations, for starters, tally income and wealth in different ways, and some nations barely tally reliable stats at all. But researchers worldwide are increasingly taking on these challenges.

UNITED NATIONS

In 2006, scholars with the United Nations University's World Institute for Development Economics Research published the first paper to tally, for the entire world, all the major elements of household wealth, everything from financial assets and debts to land, homes, and other tangible property. This research, based on year 2000 data, found that the richest 1 percent of world adults, individuals worth at least $514,512, owned 39.9 percent of the world's household wealth, a total greater than the wealth of the world's poorest 95 percent, those adults worth under $150,145.

FINANCIAL INSTITUTIONS

In more recent years, a number of global financial industry firms have been releasing their own annual calculations on worldwide wealth concentration. Among these efforts: the World Wealth Report from Capgemini and RBC Wealth Management, the Global Wealth report from the Boston Consulting Group, the World Ultra Wealth Report from the Singapore-based Wealth-X and the Swiss bank UBS, the Global Wealth Report from the German bank Allianz, and the Wealth Report from the Knight Frank property management group.

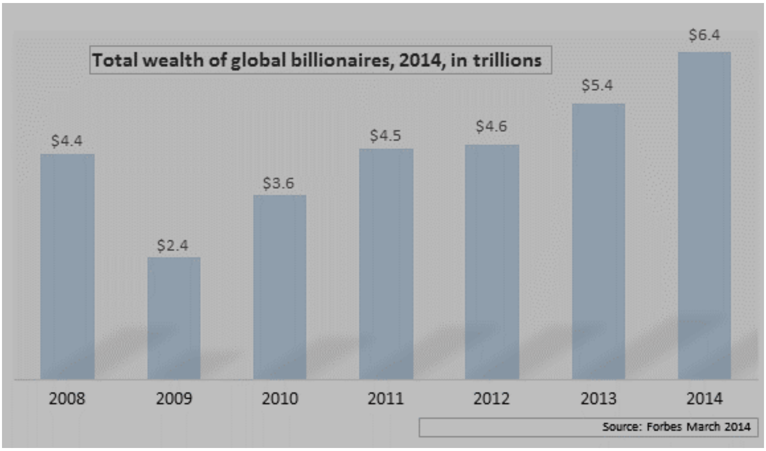


Each of these reports takes a slightly different approach to tallying up concentrated wealth. Capgemini and RBC, for instance, look at "high net worth individuals," those affluent who hold personal fortunes worth at least $1 million, excluding primary residences, collectibles, and consumer goods. The Boston Consulting Group analyze millionaire households. Wealth-X and UBS researchers place their statistical emphasis on deep pockets worth at least $30 million.

The most ambitious of all the annual financial industry wealth reports comes out of the Credit Suisse Research Institute in Zurich. Credit Suisse's Global Wealth Report estimates the net worth — both financial and "real" assets like housing — for all the world's adults. In 2014, Credit Suisse researchers estimate, individuals holding over $1 million in wealth — the richest 0.7 percent of adults globally — held 44 percent of global net worth.

FORBES MAGAZINE REPORT

The best estimates for wealth's concentration at the global economic summit come from Forbes magazine. Forbes annually tallies the fortunes of the world's billionaires. As of February 2014, Forbes reported last year, the world hosted 1,645 billionaires, over double the 793 billionaires Forbes counted in 2009, at the depth of the Great Recession. These 1,645 billionaires together hold $6.4 trillion in wealth. The 3.3 billion adults in the world with less than $10,000 to their name, Credit Suisse noted in October 2014, together hold $7.6 trillion in net worth.



INEQUALITIES IN THE POST-2015

Inequalities in the post-2015 development agenda means looking at both equality of opportunities (or lack thereof), and entrenched structural factors, including discrimination, all of which effect equality of outcomes. Most of the world's poor people occupy highly disadvantaged starting positions, which impede the development of their capabilities (as defined by Amartya Sen and others) as well as their ability to capitalize on opportunities. Focusing only on the symptoms and manifestations of poverty or exclusion (e.g. lack of income, education or health), rather than their structural causes (e.g. discrimination, lack of access to resources, lack of representation), has often led to narrow, discretionary measures aimed at addressing short-term needs. Without attention to the underlying economic, social, cultural and spatial causes of poverty and inequality, the post-2015 development agenda will not help level the playing field or achieve lasting inclusive progress. Potential policy instruments to address structural factors and produce greater equality of outcomes include:

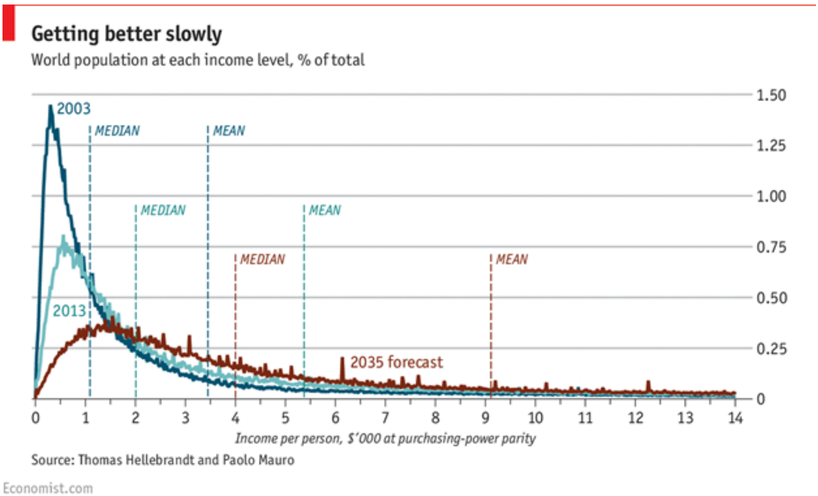
- Macroeconomic policies to ensure that sufficient, productive and decent employment is created to absorb new entrants into the labour force, provide jobs for the unemployed and reduce vulnerable forms of employment (in which women and young people are concentrated);
- Legislative reform and its implementation to address discriminatory and exclusionary practices as well as recourse mechanisms for disadvantaged groups and individuals to claim their rights; Income and social policies (e.g. registration/protection of informal work, effective compliance with legislation on minimum wage and anti-discrimination, state support for smallholder agriculture, etc.) to ensure that labour is properly compensated in a largely globalized economy where its bargaining power has been reduced through in formalization and liberalization;
- Widely accessible and good quality basic services for investing in people, their growth and capabilities, education, health, food, housing and social security;
- Social protection programmes to protect not only against sharp declines in income due to contingencies (illness, old age, disasters, market risks, etc.) but also persistently low incomes and their structural causes. (Note: The decision on whether to target social protection programmes narrowly to the poor or provide broad based assistance will depend largely on the country or sub-national context.

The former may be a practical stepping stone towards ensuring that all have access to at least minimum set of social welfare measures);

- Access to information and knowledge to overcome barriers to political and social participation and to accessing services and proactive policies and sustained social communication to influence social norms that perpetuate discrimination and exclusion;
- Widely accessible and good quality infrastructure, domestic technology and care services to support the (re)production of

labour and to reduce the unpaid care work disproportionately undertaken by women and girls.

- Wealth/income redistribution through land reform, gender- and child-responsive budgeting, adequate corporate taxation and progressive income taxation, pro-poor fiscal and trade policies, and development assistance to finance widely accessible social provisions.



The chart shows the estimated global per-capita income distribution at three years: 2003, 2013 and 2035. From 2003 to 2013, global income inequality fell. There were fewer people bunched at extreme levels of poverty. The Gini coefficient of global inequality fell from 69 in 2003 to 65 in 2013. And median income rose from about $1,000 to $2,000 in just ten years.

DEBT CRISIS

India's debt problem appears to have become less acute. But as a recent Mark to Market column by MobisPhilipose pointed out, the concentration of debt in stressed sectors such as steel, power, and infrastructure remain worryingly high. A year ago, nearly one in three companies had a net debt exceeding their market capitalization. Less than one in five belong to that category today but they account for a whopping 57% of the total debt of all firms for which data was available. Corporate debt levels in India are among the higher side in Asia, and bank balance sheets among the most strained.

India's external debt figures are also worrying. According to the annual report of the Reserve Bank of India (RBI), India's external debt-to-GDP (gross domestic product) ratio rose 1.3 percentage points to 23.3% in the year ending March 2014 over the previous year. Short-term debt (by residual maturity) as a proportion of overall debt was 40%, as of March. It is likely that the level of external debt has gone up in the current fiscal year owing to an overseas borrowing binge by companies. Many of these firms, particularly in the power and utilities sector may not have hedged their positions adequately, posing systemic risks, a recent report by the Bank of International Settlements warned.

Both India's domestic and external debt vulnerabilities are concentrated in a handful of large conglomerates in the power, materials, and infra sectors which expanded at breakneck speed during the boom years. It does not appear to be a coincidence that many of these firms are politically connected, and that the bulk of the bad debt burden has been shouldered by state-owned banks, which have been vulnerable to manipulation by New Delhi. But cronyism is only one reason for the bad debt problem. Regulatory forbearance in the immediate aftermath of the great financial crash in 2008 is also to blame, since such forbearance merely postponed the day of reckoning for indebted firms and hid the true leverage levels.

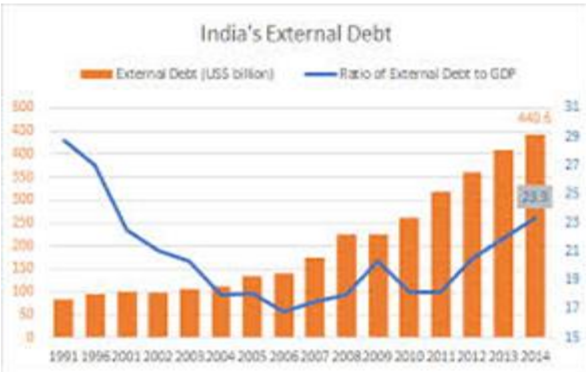
Even now, it is very difficult to take the reported debt numbers at face value given that banks still have a lot of leeway to postpone recognition of bad debt. An examination of United Bank of India's balance sheet by analysts at Barclays Capital showed that there were no signs of stress before the sudden spike in bad assets of the bank earlier this year.

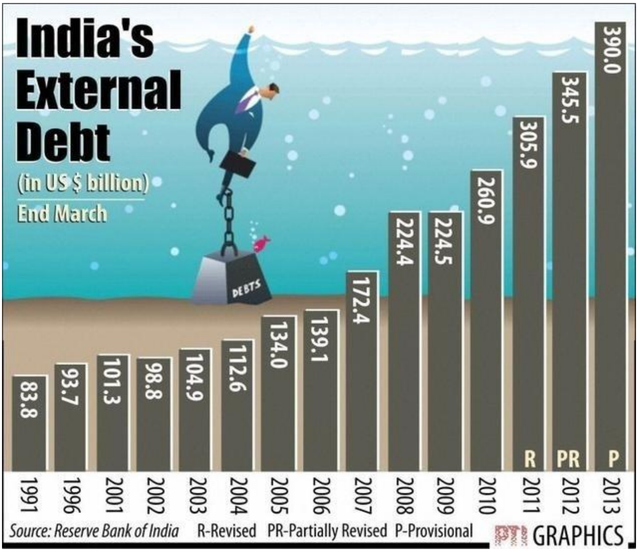
There are three key takeaways from India’s debt crisis. First, the governance and management of banks in India need urgent overhaul. Banks must follow more transparent accounting standards, and RBI must take a closer look at their lending mechanisms.

State-owned banks need special attention, and they must be insulated from political pressures. The Nayak committee recommendations on reforming state-owned banks should be taken up without further ado.

Second , rules for promoters have been far too soft for far too long, and that needs to change. RBI has already tightened norms for willful defaulters, and according to a recent Business Standard report, the capital markets watchdog, Securities and Exchanges Board of India might join force to make it difficult for such defaulters to access the capital markets.

Third, it is resist the temptation for any kind of bailouts, whether it is through special packages for stressed sectors or through state owned asset reconstruction companies. It does not take long for private debt problems to turn into public debt problems, and must avoid that trap. The deterioration in asset quality of state owned banks means that the heavy burden of refinancing them has already fallen on the taxpayer’s shoulders. It will be unfair to burden the taxpayer further.





CORPORATE INDIA'S LOOMING DEBT CRISIS

India's big businesses, under financial stress on account of the economic slowdown, have been out shopping for loans to meet their capital requirements. In the past four years, especially so, according to a recent report on the BSE's top 500 firms by India Ratings & Research, this had burdened their balance sheets to a point that any further leverage would impact their credit profiles.

The report expects the next year-and-a-half to be very challenging for Indian companies, faced with high interest rates and slow capital rotation. While their debtors have delayed payments, their average outstanding period stretching from 47 days in 2009 to 51 days now (on the excuse of weak demand for goods), their input suppliers have become more exacting by reducing their average credit span from 60 days then to 50 days now. Trade channels paying later and suppliers wanting money sooner has forced businesses to take extra loans for day-to-day operations. "With revenue—shown on the books as 'earned'—yet to be realised from debtors, the earnings and revenue chase of corporate to impress [stock] markets has pushed them deeper into credit trouble," says Deep Mukherjee.

The total balance-sheet debt of the surveyed firms has risen by 193 per cent since 2008, with interest expenses up a staggering 226 per cent in the same period. This injures their ability to service the debt. Those that took cheap loans from overseas are in currency trouble, since a weak rupee means an enlarged debt burden. According to a Crisil report, Indian firms owe foreign lenders over $200 billion, half of it unheeded against currency risk. “Many large companies might end up in Intensive Care,” says Mukherjee. Small and Medium Enterprises have been sick even earlier. To compound their woes, they have to fend for themselves. India’s macroeconomic scenario is so poor that businesses, big or small, cannot count on any help from policymakers. There is no fiscal space for the Government to do anything, and a series of slowdown related problems has kept the RBI’s monetary policy from acting in their favour. The last thing businesses can afford is a downward revision of their credit ratings, which would make it harder for them to get bank loans on reasonable terms. They could sell assets to raise cash, which would make stockmarkets nervous. But this, says Mukherjee, may be the only way out if India Inc is to avert a debt crisis.

INDIA’S DEBT CRISIS: WHERE DEBT IS, AND WHERE IT IS GOING

While the world was watching the wrangling between Democrats and Republicans over raising the U.S. debt ceiling, India has been going through its own debt crisis, which has brought major pressure upon the country’s various regions. Experts note that the problem within India is close to those which have affected other emerging economies within the world, namely from having an overheated economic situation which expanded very quickly just at the time economies in the rest of the world slowed down or stagnated.

According to a recent Guardian article, the rupee has currently slipped to an all-time low, a factor which can put the entire Indian economy in peril of collapse. And because the Indian government has made concessions to the situation in a piecemeal manner, a complete crash seems too many quite inevitable. People are worried as well as critical, which much of the criticism lying with those close to the issue not realizing the historical value of other countries who have gone through the same sort of crisis, namely China and long before Japan. Signs of worldwide economic slowdowns were ignored while India continued to build and build. Lately, with output growth decelerating and private investment falling for at least 10 consecutive quarters, industrial production and inflation have passed each other to go opposite directions with work going down while across-the-board prices have risen.

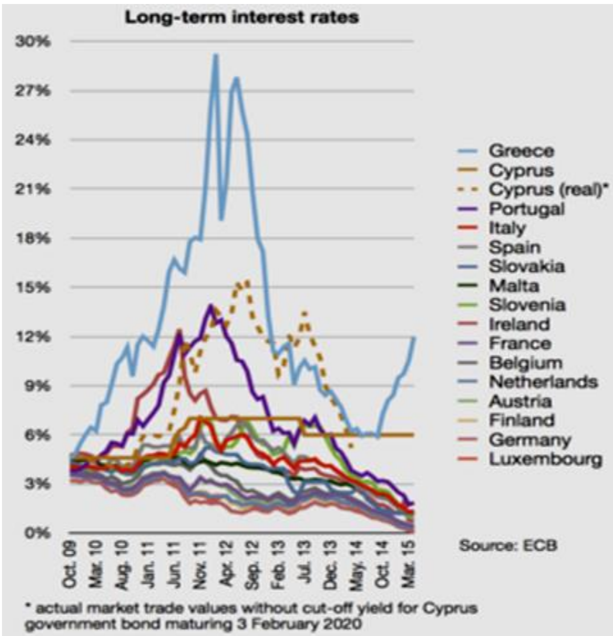
Partial blame for this scenario lands on the shoulders of not just Indian exports falling off, but imports increasing to unsustainable levels. Imports, in fact, that is nonessential to the country, such as gold, which has been financed by short-term capital that in large part has left the country, leaving India with items it can't pay for. Experts point to an Indian economic boom that was ask new from the start in which its economy was debt driven but financed with short-term capital. A sort of catch as catch can attitude drove the Indian economy, the investors of which have now abandoned the country to its own issues.

A second and even more alarming consequence of the so-called boom was it benefitted few and not the masses. Social issues and improvements were not made among the Indian classes end mass. Only the very wealthy and powerful capitalized on the economic boom. Nutrition, health, sanitation and education seemed do not correlate with the new-found wealth within India. Of course, some wiser individuals did see the looming crisis, but as often is the case within rising economies, those who issued warnings were ignored in lieu of continued delight and joy over a country that had finally made the mark along with other great economic powers. But the problem, however seems to lie with how India didn't fend for its own.

In short, it allowed investors to come in with their cash, establish themselves with their interests and companies, and pay off those who in turn, paid no attention to the country's internal ailments such as production slowdowns. This made for political instability in some cases as well as economic instability. In other cases, a good amount of Indians blame Ben Bernanke and the U.S. Federal Reserve for India's woes.

As Bernanke continually threatened to stop the U.S. Government's bond-buy program, to do so directly affected the Indian economy simply because the influx of U.S. dollars would therefore come to an end. To do this would have pressured the wealthiest in India last, while the working poor would be the first to come under such a toll. Granted, this has been a hard lesson for India, and one it will soon not forget. India might possibly rebound, but as of now, the gloom and doom seems continues to increase across the board, from those who prospered and others who never was part of the good times the country previously enjoyed.

EUROPEAN DEBT CRISIS



Long-term interest rates (secondary market yields of government bonds with maturities of close to ten years) of all euro zone countries except Estonia, Latvia and Lithuania. A yield being more than 4% points higher compared to the lowest comparable yield among the Euro zone states, i.e. yields above 6% in September 2011, and indicates that financial institutions have serious doubts about credit-worthiness of the state.

The European debt crisis (often also referred to as the Euro zone crisis or the European sovereign debt crisis) is a multi-year debt crisis that has taken place in several Euro zone member states since the end of 2009. These states were unable to repay or refinance their government debt or to bail-out over-indebted banks under their national supervision without the assistance of third parties like the EFSF, the ECB, or the IMF.

The European debt crisis erupted in the wake of the Great Recession around late 2009, and was characterized by an environment of overly high government structural deficits and accelerating debt levels. The states getting adversely hit by the crisis, faced a strong rise of interest rate spreads for government bonds, as a result of investor concerns about their future debt sustainability, to the extent that four Euro zone states needed to be rescued by sovereign bailout programs, delivered jointly by the International Monetary Fund and European Commission - with additional support at the technical level by the European Central Bank. Together these three international organisations representing the bailout creditors became nicknamed "the Troika".

In 1992, members of the European Union signed the Maastricht Treaty, under which they pledged to limit their deficit spending and debt levels. However, in the early 2000s, some EU member states were failing to stay within the confines of the Maastricht criteria and turned to securitizing future government revenues to reduce their debts and/or deficits, sidestepping best practice and ignoring international standards. This allowed the sovereigns to mask their deficit and debt levels through a combination of techniques, including inconsistent accounting, off-balance-sheet transactions, and the use of complex currency and credit derivatives structures. From late 2009 on, after Greece's new elected government stopped masking its true indebtness and budget deficit, fears of sovereign defaults in certain European states developed in the public. This led to a wave of downgrading the government debts of these states.

In several countries, private debts arising from a property bubble were transferred to sovereign debt as a result of banking system bailouts and government responses to slowing economies post-bubble. In Greece, high public sector wage and pension commitments were connected to the debt increase. The structure of the Euro zone as a currency union (i.e., one currency) without fiscal union (e.g., different tax and public pension rules) contributed to the crisis and harmed the ability of European leaders to respond.

European banks own a significant amount of sovereign debt, such that concerns regarding the solvency of banking systems or sovereigns are negatively reinforcing. Concerns intensified in thereafter, leading European nations to implement a series of financial support measures such as the European Financial Stability Facility (EFSF) and European Stability Mechanism (ESM).

When the relatively fragile banking sector, as a negative repercussion of the Great Recession had suffered big capital losses, most states in Europe had to bailout several of their worst hit banks with some supporting recapitalization loans, because of the strong linkage between their survival and the financial stability of the economy. As of January 2009, a group of 10 central and eastern European banks had already asked for a bailout. At the time, the European Commission released a forecast of a 1.8% decline in EU economic output for 2009, making the outlook for the banks even worse. The many public funded bank recapitalizations were one of the main reasons behind the sharply deteriorated debt-to-GDP ratios experienced by several European governments in the wake of the Great Recession, but cannot solely be blamed for having caused eruption of the subsequently experienced sovereign debt-crisis - which only erupted in a limited number of European states. The main root causes for the four sovereign debt crisis erupting in Europe, were reportedly a mix of: Weak actual and potential growth; competitive weakness; liquidation of banks and sovereigns; large pre-existing debt-to-GDP ratios; and considerable liability stocks (government, private, and non-private sector.

During the course of 2010–12, it became evident four out of eighteen Euro zone states (Greece, Ireland, Portugal and Cyprus), in the face of some persistent negative growth prospects and accelerating government debt stocks, had difficulty or inability to repay or refinance their government debt, without the assistance of bailout support from the Troika. The transfer of bailout funds were performed in tranches through multiple years, conditional of the governments at the same time implementing a package of fiscal consolidation, structural reforms, privatization of public assets and setting up funds for further bank recapitalization and resolution. Spain was strictly speaking not hit by a sovereign debt-crisis in 2012, as their received financial support package from the European Stability Mechanism was earmarked only to fund a bank recapitalization fund without containing any financial support for the government itself.

As of July 2014, Ireland and Portugal had completed and exited their bailout programmes successfully, meaning a combination of improved structural deficits and return of economic growth, had ensured a regain of complete market access to accommodate their future refinancing needs at the end of their programme periods. In regards of Greece and Cyprus, they both accomplished a partly regain of market access in 2014, and are scheduled to have their bailout programme periods ended in March 2016.

As well as the political measures and bailout programmes being implemented to combat the Eurozone crisis, the European Central Bank (ECB) has also done its part by loweringinterest rates and providing cheap loans of more than one trillion euro to maintain money flows between European banks. On 6 September 2012, the ECB also calmed financial markets by announcing free unlimited support for all Euro zone countries involved in a sovereign state bailout/precautionary programme from EFSF/ESM, through some yield lowering Outright Monetary Transactions (OMT). The crisis had significant adverse economic effects and labor market effects for the worst hit countries, with unemployment rates in Greece and Spain hitting 27%, and was overall blamed for causing subdued economic growth - not only for the entire Euro zone - but for the entire European Union. As such, it can be argued also to have had major political impact on the ruling governments in 8 out of 18 Euro zone countries, contributing to power shifts in Greece, Ireland, Italy, Portugal, Spain, Slovenia, Slovakia, and the Netherlands.

SOUTH EAST ASIAN CRISIS

On the 2nd of July 1997, Asia was hit by one of the most devastating financial crises it has ever seen. Of all financial crises that have taken place, this was one of the most distressing in that it was totally unexpected. The origins of the crisis lie, and what events started the cycle that eventuated with this disaster. In order to trace the events that led to the eventual collapse of the Asian economies, one must venture across the ocean to the United States.

The issue of liberalisation first gained attention in the US during the Regan Administration. However, it was during the Clinton era that liberalisation became a top priority. Whereas previous governments had pushed for the liberalisation of Japan, one of Clinton’s main foreign policy objectives was the liberalisation of the Asian economies. This process was pushed forth in Asia with such vehemence because the region held a lot of investment opportunities for American Banks, Brokerages, and other financial sector businesses.

Unfortunately, Asia's economies were not structurally ready to deal with the influx of capital that was headed their way. They had weak banking and legal systems that were unable, or unwilling, to regulate the flow of foreign capital in the country.

The Americans eventually persuaded Korea to relax its capital flow regulations by giving it the option of joining the Organisation for Economic Co-operation and Development. Even then, Korea was concerned that its financial institutions may not be able to deal with an influx of foreign capital. One fatal mistake that Korea, as well as other Southeast Asian countries made was that they opened their capital markets in the wrong way. They did not allow long term investments in Korean companies, but rather, only short-term investment that could be removed easily.

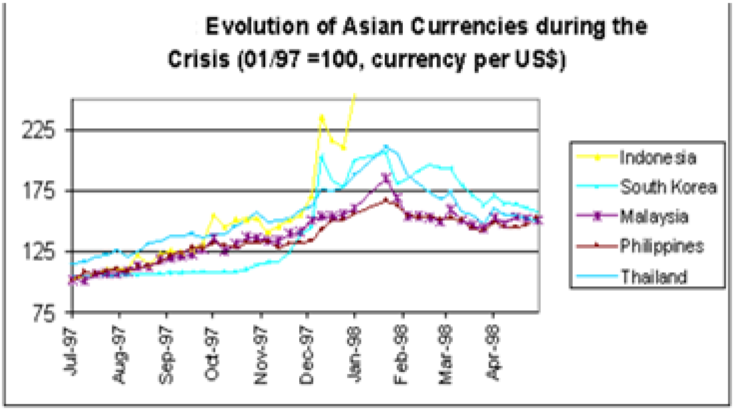
One example of the sort of quick investments that were being made in Asia can be seen in the Japanese. In Japan the interest rates were very low, so investors would borrow at 2 percent and then convert their currency into Thai baht. Due to the interest rate differential, they were able to make a lot of money off simple currency conversion. Other Asian economies were quick to follow suit, and soon there was a movement of huge amounts of capital into the region. In just one year, more than $93 billion was invested in five Asian countries. One must, however, concede that Southeast Asia became very receptive to the changes being imposed on them by the United States. Eventually, foreign investment came to be seen as a miracle cure for underdevelopment. It was seen as a quick fix that could, in a short period of time, bring countries to the same level of development as the West.

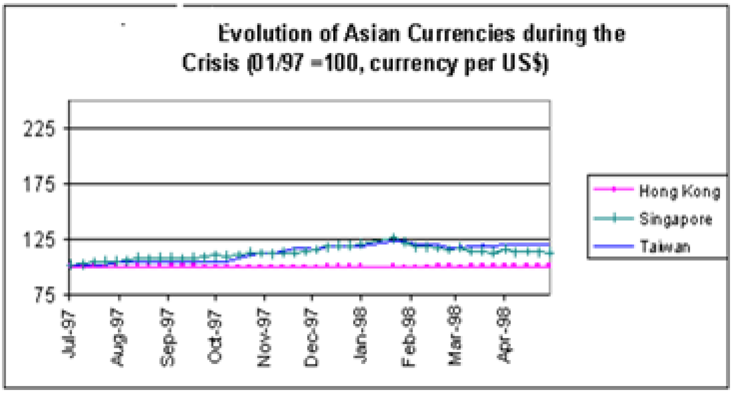
The trouble started in 1995, when the United States inflated the dollar, and hence also inflated the Thai baht and other Asian currencies that were pegged to the dollar. This caused their exports to become expensive compared to Chinese exports. The Thai deficit rose to such an extent that all their foreign currency reserves started to drain in order to pay it. This is the first time that investors got to see the weakness in the Thai financial market. It is not possible to place the entire blame for the crisis on the United States. As was mentioned before, Asian countries were more than happy to accept the capital coming their way. It is important to evaluate the different internal weaknesses in these economies that led to the eventual crisis.

THE EVOLUTION OF ASIAN CURRENCIES DURING THE FINANCIAL CRISIS

The Asian financial crisis started with the devaluation of Thailand's Bath, which took place on July 2, 1997, a 15 to 20 percent devaluation that occurred two months after this currency started to suffer from a massive speculative attack and a little more than a month after the bankruptcy of Thailand's largest finance company, *Finance One*.

This first devaluation of the Thai Baht was soon followed by that of the Philippine Peso, the Malaysian Ringgit, and the Indonesian Rupiah and, to a lesser extent, the Singaporean Dollar. This series of devaluations marked the beginning of the Asian financial crisis. This first sub-period of the currency crisis took place between July and October of 1997. The figures present the monthly evolution of the currencies of the eight South-East Asian countries studied here for the period July 1997 (rebased to 100 in all the graphs) to May 1, 1998. Included are the Hong Kong (H.K. Dollar), Indonesia (Rupiah), Malaysia (Ringgit), the Philippines (Peso), Singapore (SG Dollar), South Korea (Won), Taiwan (New Dollar) and Thailand (Baht).





A second sub-period of the currency crisis can be identified starting in early November, 1997 after the collapse of Hong Kong's stock market (with a 40 percent loss in October). This sent shock waves that were felt not only in Asia, but also in the stock markets of Latin America (most notably Brazil, Argentina and Mexico).

In addition to these stock markets, were those of the developed countries (e.g. the U.S. experienced its largest point loss ever in October 27, 1997, which amounted to a 7 percent loss). These financial and asset price crises also set the stage for this second sub-period of large currency depreciations. This time, not only the currencies of Thailand, the Philippines, Malaysia, Indonesia and Singapore were affected, but those of South Korea and Taiwan also suffered. In fact, the sharp depreciation of Korea's Won beginning in early November added a new and more troublesome dimension to the crisis given the significance of Korea as the eighth largest economy in the world; the magnitude of the depreciation of its currency which took place in less than two months; and the Korean Central Bank's success in maintaining the peg ever since the Thai's first devaluation (i.e. the "nominal anchor" of the largest of the Asian Tigers was suddenly lost). In addition, the other important component of this second sub-period: the complete collapse of the Indonesian Rupiah that started at about the same time.

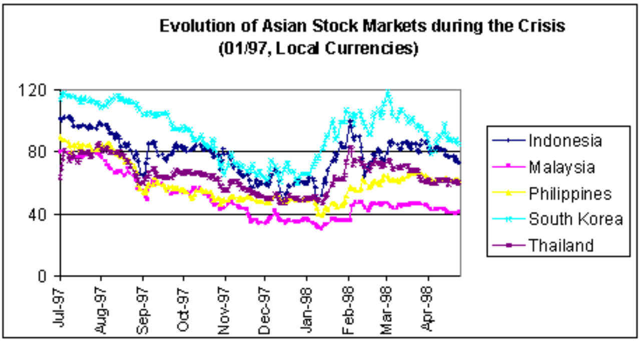
Finally, starting in January of 1998, the currencies of all of these countries regained part of what they had lost since the crises started. It is also important to note that at a great cost Hong Kong was able to maintain its peg after the crisis first erupted. This required that interest rates be raised to fend-off these currencies from repeated speculative attacks.

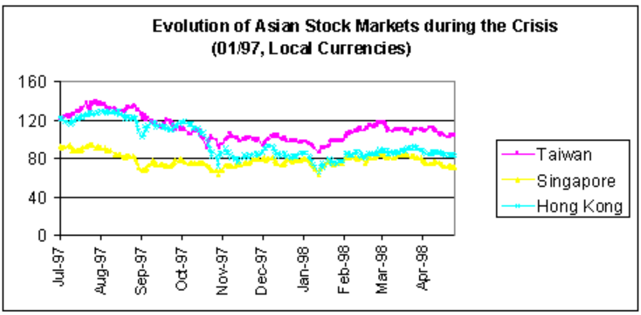
THE EVOLUTION OF ASIAN STOCK MARKETS DURING THE SOUTH EAST ASIAN FINANCIAL CRISIS-IMPLICATIONS

It is necessary to study the evolution of the stock markets and the inflow of money that went to the Asian economies in order to understand the financial crisis of 1997- 1998. Net equity investments in the economies of South Korea, Indonesia, Malaysia, Thailand, and the Philippines amounted to US$ 12.2 billion in 1994, US$ 15.5 billion in 1995, US$19.1 billion in 1996, and US$ –4.5 billion in 1997 according to the Institute of International Finance in 1998. The reversal for 1997 came as a result of the financial crisis that started in Thailand, which added pressure to the currency markets of the countries. Net equity investments and new private loans financed most of the increasing current account deficits that the SE-Asian economies, as well as most of the developing world, experienced during the 1990s.

The ability of most of the developing world to import capital through securities markets was enhanced by the exponential growth in the U.S. mutual fund industry, and the low interest rates available in the U.S. and Japan during the past decade. The following figures shows the behavior of the Asian stock market indices during the crisis.

The monthly evolution of national stock price indices (expressed in US dollars) for these same eight countries and during the same period of time. The stock market indices are those provided by Morgan Stanley International Capital (MSCI). The figures below show the behavior of the same Asian stock market indices from July 1997 to April 1998 but expressed in local currency. However, the magnitude of the decline on the local stock market prices is not as pronounced when expressed in local currency.





The finding of a close relationship between exchange rate depreciations and stock returns during a crisis is consistent with Bailey, Chan and Chung (2001).

These authors demonstrate, using intraday data, that the severe downturn of the Mexican stock market in December 1994 and early 1995 can be associated with the Peso devaluation that took place during this same period. In the case of the five Asian countries whose currencies experienced the sharpest depreciations during the Asian crisis (Indonesia, Malaysia, Philippines, South Korea, and Thailand) the average correlation between weekly stock market returns and currency changes (where currency is defined as the number of units of foreign currency per 1 U.S. dollar) between the first week of July 1997 and the first week of May 1998 is –0.63 and is significant at the 1percent level.

The explanation for this strong association is that currency devaluations have traditionally been accompanied by declining stock markets in the developing world because they have usually taken place in the middle of a financial crisis and uncertainty about the future course of economic policies and outcomes. For instance, the negative impact of devaluing currencies on S.E.-Asian banks and companies that had borrowed heavily on international markets most probably surpassed the potential export gains. But an "orderly" devaluation such as that of Britain in 1992 did not have negative effects on the London stock market since it helped the British economy recover from a three-year recession via an export-boom.

CONCLUSION

The global economy affects everyone in the world supporters of globalization hasten to emphasize the cultural, ethical and political aspects of globalization. From these we must learn historical globalization and build relatively a new humanistic universalism. India might possibly rebound, but as of now, the gloom and doom seems continues to increase across the board, from those who prospered and others who never was part of the good times the country previously enjoyed.

REVIEW QUESTIONS

1. What is globalization?
2. In what ways has globalization been going on since the dawn of modern civilizations?
3. What are the benefits of globalization for the average person?
4. What are the drawbacks of globalization for the average person?
5. Should citizens make efforts to encourage their compatriots to purchase goods made in their own countries?
6. In the final analysis, will globalization lead to more peace or more war? Explain.
7. In what ways, if any, should globalization be stifled?
8. Explain the income inequality at the global level.
9. Describe the various inequalities undergone in the global economy.
10. Discuss the inequality in the post-2015.
11. Explain the debt crisis from 1990 to 2015.
12. What are the causes of debt crisis?
13. Discuss corporate India's looming debt crisis.
14. Where debt is and where it is going in India?
15. Explain the evolution of South East Asian crisis.
16. How to overcome the South East Asian crisis?
17. Write the implications of South East Asian crisis.

UNIT V - (L)

CAPITAL CONTROLS

Objectives

- To explain the basic principles of capital controls and the Chile model.
- To provide a detail insight into the tax transaction and need of economic order.

CAPITAL CONTROLS

The consensus among economists has been that capital controls like tariffs on goods are obviously detrimental to economic efficiency because they prevent productive resources from being used where they are most needed. As a result, capital controls gradually had been phased out in developed countries during the 1970s and 1980s, and by the 1990s there was substantial pressure on less developed countries to remove their restrictions, too (*New York Times*, 1999).

Any measure taken by the Government, central bank or other regulatory body is to limit the flow of foreign capital in and out of the domestic economy. This includes taxes, tariffs, outright legislation and volume restrictions, as well as market-based forces. Capital controls can affect many asset classes such as equities, bonds and foreign exchange trades. Tight capital controls are most often found in developing economies, where the capital reserves are lower and more susceptible to volatility.

Capital controls are the subject of much debate; some feel that they inherently limit economic progress and efficiency while others see them as prudent, adding a measure of safety to the economy. Most of the largest economies have a liberal policy of capital control, having phased out stricter rules from the past. But most of these same economies have basic stopgap measures in place to prevent against a mass exodus of capital (outflows) during a time of crisis or a massive speculative assault on the currency. Global factors, like globalization and the integration of financial markets, have contributed to an overall easing of capital controls. Opening up an economy to foreign capital generally allows for companies to have easier access to capital, and can raise overall demand for domestic stocks.

HISTORY OF CAPITAL CONTROLS

Over the last century, economists have regularly expressed concerns about international capital flows. For example, in the 1920's Ragnar Nurkse wrote about "destabilizing capital flows" and in the 1970's Charles Kindleberger described the role of capital in driving "manias, panics and crashes".

When the world's leading economies met at Bretton Woods after World War II to formulate rules governing the international financial system, John Maynard Keynes and other delegates debated the role for capital controls. The resulting compromise required that members of the International Monetary Fund (or IMF, one of the newly created International Monetary Institutions) allow capital to be freely exchanged and convertible across countries for the purpose of all current account transactions, but they could enact capital controls for financial account transactions. Most countries had capital controls in place at this time.

Over the following years, however, many developed countries gradually removed their capital controls, so that by the 1980s, most had few controls in place. By the early and mid-1990s, many emerging markets and developing countries also began to lift their capital controls. The impact initially appeared to be positive—capital flowed into countries with liberalized capital accounts, investment and growth increased, and asset prices rose. In fact, support for lifting capital controls was so widespread that in

1996/97 leading policymakers discussed amending the rules agreed to at Bretton Woods to extend the IMF's jurisdiction to include capital movements and make capital account liberalization a purpose of the IMF. In mid-1997, however, a series of financial crises started in Asia and spread across the world, appearing to disproportionately affect emerging markets that had recently liberalized their capital accounts. This series of crises sparked a reassessment of the desirability of capital controls, especially for emerging markets and developing economies.

In a sharp sea change, many leading policymakers and economists began to support the use of capital controls for emerging markets in some circumstances, especially taxes on capital inflows. Much of this support was based on the belief that controls on capital inflows could reduce a country's vulnerability to financial crises. From 2002 to 2015, several emerging markets (such as Colombia, Russia and Venezuela) also implemented new controls on capital inflows, largely to reduce the appreciations of their currencies. Over the same period, however, several large emerging markets (such as India and China) moved in the opposite direction and lifted many of their existing controls.

OBJECTIVES OF CAPITAL CONTROLS

Many arguments have been advanced in the economic literature to justify the use of capital controls. Among these, second-best arguments identify situations in which capital account restrictions improve economic welfare by compensating for financial market imperfections, including those resulting from informational asymmetries. Proposals to address these imperfections range from improved disclosure and stronger prudential standards to the imposition of controls on international capital flows.

Policy implementation arguments hold that capital controls may help to reconcile conflicting policy objectives when the exchange rate is fixed or heavily managed. These arguments include preserving monetary policy autonomy to direct monetary policy toward domestic objectives and reducing pressures on the exchange rate. An additional, related, motivation for capital controls has been to protect monetary and financial stability in the face of persistent capital flows, particularly when there are concerns about the inflationary consequences of large inflows, or inadequate assessment of risks by banks or the corporate sector in the context of a heavily managed exchange rate that, by providing an implicit exchange rate guarantee, encourages a buildup of unhedged foreign currency positions. Finally, capital controls have also been used to support policies of financial repression to provide cheap financing for government budgets and priority sectors. Other political economy arguments are outside the scope of this review.

TYPES OF CAPITAL CONTROLS

Controls on cross-border capital flows encompass a wide range of diversified, and often country specific, measures. These restrictions on and impediments to capital movements have in general taken two broad forms:

(1) "Administrative" or direct controls and

(2) "market-based" or indirect controls.

In many cases, capital controls to deal with episodes of heavy capital flows have been applied in tandem with other policy measures, rather than in isolation.

Administrative or direct controls usually involve either outright prohibitions on, or an (often discretionary) approval procedure for, cross-border capital transactions. Market-based or indirect controls, on the other hand, attempt to discourage particular capital movements by making them more costly.

Such controls may take various forms, including explicit or implicit taxation of cross-border financial flows and dual or multiple exchange rate systems. Market-based controls may affect the price, or both the price and the volume, of a given transaction.

BENEFITS AND COSTS OF CAPITAL CONTROLS

The free movement of capital across borders can have widespread benefits. Capital inflows can provide financing for high-return investment, thereby raising growth rates. Capital inflows—especially in the form of direct investment—often bring improved technology, management techniques, and access to international networks, all of which further raise productivity and growth. Capital outflows can allow domestic citizens and companies to earn higher returns and better diversify risk, thereby reducing volatility in consumption and income. Capital inflows and outflows can increase market discipline, thereby leading to a more efficient allocation of resources and higher productivity growth. Implementing capital controls can reduce a country's ability to receive these multifaceted benefits.

On the other hand, the free movement of capital across borders can also have costs. Countries reliant on foreign financing will be more vulnerable to "sudden stops" in capital inflows, which can cause financial crises and/or major currency depreciations. Large volumes of capital inflows can cause currencies to appreciate, undermining export competitiveness and causing the "Dutch Disease". The free movement of capital can also complicate a country's ability to pursue an independent monetary policy, especially when combined with a fixed exchange rate. Finally, capital inflows may be invested inefficiently due to a number of market distortions, thereby leading to overinvestment and bubbles that create additional challenges. Capital controls could potentially reduce these costs from the free movement of capital.

PURPOSE OF CAPITAL CONTROLS

A capital control is any policy designed to limit or redirect capital account transactions. This broad definition suggests that it will be difficult to generalize about capital controls because they can take many forms and may be applied for various purposes (Bakker, 1996). Controls may take the form of taxes, price or quantity controls, or outright prohibitions on international trade in assets.

ADVANTAGES

- In certain circumstances capital controls are effective in reaching the intended aim.
- Controls may help to support a weak financial system.
- Controls on Inflows seem to make monetary policy more independent, alter composition, reduce real exchange rate pressures.
- Controls on Outflows seem to be effective in reducing capital outflows, making monetary policy more independent.

DISADVANTAGES

- Disability of international capital flows.
- Capital controls might reduce a country's ability to receive multifaceted benefits. (technology, access to international networks)
- High administrative costs of imposing capital controls.
- Possible prevention of adaptation to changing international circumstances.
- Necessary adjustments in policies in the context of financial globalization might be postponed.
- Negative market perceptions: it may be more difficult and more costly for countries with capital controls to access foreign funds.
- No discretionary policy.

PRICE vs. QUANTITY CONTROLS

Capital controls also may be distinguished by whether they limit asset transactions through price mechanisms (taxes) or by quantity controls (quotas or outright prohibitions). Price controls may take the form of special taxes on returns to international investment (like the U.S. interest equalization tax of the 1960s), taxes on certain types of transactions, or a mandatory reserve requirement that functions as a tax. One type of price mechanism to discourage short-term capital flows is the "Tobin" tax. Proposed by Nobel laureate James Tobin in 1972, the Tobin tax would charge participants a small percentage of all foreign exchange transactions (ul Haq, Kaul and Grunberg, 1996; Kasa, 1999). Advocates of such a tax hope that it would diminish foreign exchange market volatility by curtailing the incentive to switch positions over short horizons in the foreign exchange market.

There are many problems with a Tobin tax, however the tax might reduce liquidity in foreign exchange markets or be evaded easily through derivative instruments. It is uncertain who would collect the tax or for what purposes the revenue would be used. And, most impressively, a Tobin tax would have to be enacted by widespread international agreement to be successful.

A *mandatory reserve requirement* is a price-based capital control that commonly has been implemented to reduce capital inflows. Such a requirement typically obligates foreign parties who wish to deposit money in a domestic bank account—or us another form of inflow—to deposit some percentage of the inflow with the central bank for a minimum period. For example, from 1991 to 1998, Chile required foreign investors to leave a fraction of short-term bank deposits with the central bank, earning no interest. As the deposits earn no interest and allow the central bank to buy foreign money market instruments, the reserve requirement effectively functions as a tax on short-term capital inflows (Edwards, 1998b). Quantity restrictions on capital flows may include rules mandating ceilings or requiring special authorization for new or existing borrowing from foreign residents. There may be administrative controls on cross-border capital movements in which a government agency must approve transactions for certain types of assets. Certain types of investment might be restricted altogether as in Korea, where the government has, until recently, restricted long-term foreign investment (Eichengreen, et al. 1999). Forbidding or requiring special permission for repatriation of profits by foreign enterprises operating domestically may restrict capital outflows. Capital controls may be more subtle: Domestic regulations on the portfolio choice of institutional investors also may be used as a type of capital control, as they have been in Italy and in South Korea in the past (Bakker, 1996; Park and Song, 1996).

CONTROLS ON INFLOWS vs. OUTFLOWS

Capital controls on some long-term (more than a year) inflows—direct investment and equity—often are imposed for different reasons than those on short-term inflows—bank deposits and money market instruments. While the recent trend has been to limit short-term capital flows because of their allegedly greater volatility and potential to destabilize the economy, bans on long-term capital flows often reflect political sensitivity to foreign ownership of domestic assets.

For example, Article 27 of the Mexican constitution limits foreign investment in Mexican real estate and natural resources. Controls on capital inflows and outflows provide some slack for monetary policy discretion under fixed exchange rates, but in opposite directions.

Controls on capital inflows, which allow for higher interest rates, have been used to try to prevent an expansion of the money supply and the accompanying inflation, as were those of Germany in 1972-7 (Marston, 1995) or Chile during the 1990s. In contrast, controls on capital outflows permit lower interest rates and higher money growth than otherwise would be possible (Marston, 1995).

Why should the international community care about capital controls?

- Need for international requirements in the course of increasing financial integration.
- Unforeseen currency appreciation in many developing countries as a consequence of capital flight into wealthy countries.

- However, full control over capital flows implies full control over its trade balance, and hence the real exchange rate affecting trade flows.
- Yet periods of transformation are potentially dangerous, as countries search individually for solutions to problems of unemployment and insecurity that require collective action.

In what circumstances can capital controls be considered as useful and legitimate?

- Therefore exist a need for a new international financial architecture that promotes national policy autonomy while certain national strategies should be brought into line with beneficial co-ordination.
- Literature findings suppose that it is optimal to impose a countercyclical Pigouvian tax on debt inflows in a boom to reduce the risk and heaviness.
- Interestingly, the optimal tax would apply basically on the inflows (short-term or foreign currency debt) that are the least likely to charge economic growth.
- Obviously, capital controls are not a silver bullet. They are effective if they are used with moderation.

DIFFERENT INSTRUMENTS OF CAPITAL CONTROLS

Administrative

- Threshold investment requirements
- Approval procedure required for cross-border transactions
- Quantitative limits and/or quotas on investment
- Outright prohibition of repatriation or non-convertible currency

Transaction-based

- Non-interest bearing reserve requirements
- Taxes on portfolio flows (e.g. Tobin Tax)
- Discriminatory and disparate taxes on income resulting from foreign assets

- Credit rating requirements for borrowing abroad
- Time requirements, including stipulations that incoming funds have to stay in the country a certain amount of time
- Multiple exchange rate systems
- Increased and discriminatory reporting requirements

CHILE MODEL

Controls on international capital flows have no place in a world without policy distortions and market failures. Chile's long experience with capital controls—of both the administrative and the quantitative sort—has caught the interest of both policy makers and academics in a world of highly volatile capital flows, especially since Mexico's crisis in 1994-95. An increasing number of recent studies has provided an empirical evaluation of the macroeconomic effects of Chile's quantitative restriction on capital inflows—the unremunerated reserve requirement imposed by the Central Bank of Chile on selective (mostly short-term or financial) capital inflows during 1991-1998.

BACKGROUND ON THE CHILEAN CAPITAL CONTROLS

Chile, as well as many other emerging markets, experienced a surge of capital inflows between 1988 and 1991. Largely in response, the Chilean government enacted a series of capital account restrictions in 1991. The encaje is a Spanish word, it means financial reserve , or unremunerated reserve requirement (URR), was a key component of these restrictions. It required that a fraction of certain types of capital inflows must be deposited at the central bank in a non-interest bearing account for a fixed term. The encaje was initially set at a rate of 20% and only applied to fixed-income securities and foreign loans, excluding trade credits (as long as the shipment occurred within 6 months). The tax did not initially include portfolio flows or FDI.

The holding period at the central bank was initially equal to the loan's maturity, with a minimum of 90 days and maximum of 1 year. Investors were also given the option of either making the deposit at the central bank, as described above, or paying an up-front fee equivalent to the interest cost of the URR.

The primary goal of the encaje was to moderate the appreciation of the Chilean peso in order to maintain competitive export prices. A secondary goal was to regulate short-term capital inflows, especially from banks and institutional investors, and therefore moderate the buildup of speculative short-term liabilities. A final goal was to increase the ability of the central bank to effectively use monetary policy by creating a wedge between domestic and foreign interest rates.

This concern was particularly important because the government sought to reduce inflation, which was becoming increasingly difficult as any attempt to reduce demand by raising interest rates was often overwhelmed by the expansionary effect of capital inflows. Reflecting this combination of goals, the capital controls initially covered only short-term borrowing and debt, and only later were expanded to cover equities and other types of portfolio flows. A primary focus of the encaje were not initially to reduce Chile's vulnerability to contagion or global financial turmoil — a central motivation for other countries considering these controls.

During the 7-year period after the encaje was enacted, it was continually modified. These changes were aimed mainly at closing loopholes frequently discovered by investors and borrowers, although occasionally were designed to adapt to changes in the economic environment.

CHILE’S ENCAJE: 1991-98

During the late 1980s and early 1990s, international capital began to return to Chile as a result of slow growth and low interest rates in the developed world and sound macroeconomic policies, including reduced debt, in Chile (Edwards, 1998). The Chilean authorities feared that these capital inflows would complicate monetary policy decisions—perhaps causing real appreciation of the exchange rate—and they also were wary of the danger of building up short-term debt.

Chile had long restricted capital flows and these limits were updated in the early 1990s to deal with the surge in capital inflows. Direct investment was made subject to a 10-year stay requirement in 1982; this period was reduced to three years in 1991 and to one-year in 1993. Portfolio flows were made subject to the *encaje*—a one-year, mandatory, non-interest paying deposit with the central bank—created in 1991 to regulate capital inflows. The *encaje* was initially 20 percent but was increased to 30 percent in 1992. The penalty for early withdrawal was 3 percent.

The effect of the *encaje* was to tax foreign capital inflows, with short-term flows being taxed much more heavily than long-term flows. For example, consider the choice of an American buying a one-year discount bond with a face value of 10,000 pesos for a price of 9,091 pesos, or a 10-year discount bond with the same face value and a price of 3,855 pesos. Either bond, if held to maturity, would yield a 10 percent per annum return. In the presence of a 30 percent one-year reserve requirement, however, the one-year bond's annual yield would be 7.7 percent and the 10-year bond's annual yield would be 9.7 percent. Hence, the *encaje* acted as a graduated tax on capital inflows.

Researchers disagree about the effectiveness of Chile's capital controls. Valdes and Soto (1996) concluded that they changed the composition but not the magnitude of the inflows. In other words, investors substituted from heavily taxed short-term flows to more lightly taxed long-term inflows. They also found that the controls were ineffective in preventing a real appreciation of the exchange rate. Larraín B., Labán M., and Chumacero (1997) studied the same issue with different methods and found that, although there was considerable substitution in the short run, the controls did change the magnitude of the inflows in the long run.

There is even more disagreement about whether the capital controls were important in keeping Chile insulated from the Asian crisis. Many observers have cited Chile's capital controls in advocating more widespread restrictions on capital controls for other developing countries (Bhagwati, 1998). Edwards (1998a), on the other hand, points out that Chile also had substantial capital controls during the late 1970s and early 1980s, before its major banking crisis that cost Chileans more than 20 percent of GDP during 1982-83. The major difference between then and now is that Chile now has a modern and efficient system of banking regulation.

Others credit the participation of foreign banks in strengthening the Chilean banking system by providing experience and sophistication in assessing risks and making loans. At the time of the crisis, Chile had a high percentage of domestic loans from foreign-owned banks—20 percent, about the same as the United States and far higher than South Korea, Thailand, and Indonesia (5 percent) (*Economist*, 1997). In addition, Edwards (1998a) claims that the *encaje* harmed the domestic financial services industry and the small firms that could not borrow long term on international markets to avoid the tax. If Chile's capital controls helped, it was to buy time for structural reforms and effective financial regulation.

CAPITAL CONTROLS IN CHILE DURING THE 1990s

Trends of Capital Controls worldwide and in Chile

While controls on inflows and outflows can be equivalent under steady-state conditions (as argued by Laban and Larraín, 1997), they are very different under non-stationary conditions and, in particular, in a crisis situation. Indeed, controls on inflows (like Chile's 1991-98 reserve requirement) are imposed ex-ante in a preventive way, while controls on outflows are typically imposed as ex-post measures to stem capital outflows (like Chile's 1982 and Malaysia' 1997 controls). As a change in the rules of the game that amounts at least to a temporary expropriation, controls on outflows are much more costly to foreign investors and to the countries that impose them. In addition, the international evidence suggests that controls on outflows are easier to evade than those on inflows. Finally, controls on inflows are pro-cyclical (they are imposed when the world supply of capital increases), while controls on outflows are anti-cyclical. Chile is no exception to this world experience, with a long history of controls on capital account flows and transactions that started in the 1930s and continued through the mid 1970s.

Controls were gradually liberalized in the late 1970s and early 1980s, but were tightened again in the aftermath of the Latin American debt crisis of the 1980s. The resumption of voluntary capital flows to emerging markets coincided in time with new capital inflows starting coming to Chile in 1988. After a growing tide of inflows during 1988-1990, the Cell Broadcast Channel imposed new quantitative restrictions in the form of an unremunerated reserve requirement on selective inflows in 1991 (that lasted through September 1998), and began liberalizing old administrative controls on outflows.

TOBIN TAX AND EXCHANGE RATE STABILITY

Recent turbulence in world financial markets has rekindled interest in the so-called Tobin tax on international financial transactions as a way to discourage speculative currency trading and reduce exchange rate volatility. A two-tier structure might be more effective than a pure transaction tax.The primary aim of the Tobin tax, first proposed in 1972 by Professor James Tobin during his Janeway Lectures at Princeton University, is to reduce exchange rate volatility.

A uniform international tax payable on all spot transactions involving the conversion of one currency into another, in both domestic security markets and foreign exchange markets, the Tobin tax would, in theory, discourage speculation by making currency trading more costly.

The volume of destabilizing short-term capital flows would decrease, leading to greater exchange rate stability. The proposed tax is said to possess a number of advantages. It would reduce "noise" from market trading while allowing traders to react to changes in economic fundamentals and policy, and would therefore be superior to protective measures such as capital controls. Because it would require the international coordination of macroeconomic policies and could be used as a policy instrument by such organizations as the IMF and the World Bank, it would enhance not only market efficiency but also global financial stability.

As a pure transaction tax, however, the Tobin tax would not be effective. Because of problems in the way it is structured, the proposed tax would impair the operations of the international financial markets and create liquidity problems without deterring speculation. An alternative solution might be a two-tier structure consisting of a low tax rate for normal transactions and an exchange surcharge on profits from very short-term transactions deemed to be speculative attacks on currencies. Under this scheme, an exchange rate would be allowed to move freely within a band, but overshooting the band would result in a tax on the discrepancy between the market exchange rate and the closest margin of the band. Exchange rates would thus be kept within a target range through taxation rather than central bank intervention or the depletion of international reserves.

POLICY DILEMMAS

The main problems limiting the effectiveness of the Tobin tax lie in four crucial areas: establishing the tax base, identifying taxable transactions, setting the tax rate, and distributing tax revenues.

The tax base: To limit financial market distortions, the base for any tax on international financial transactions would have to be as broad as possible. No category of market participants would be excluded, and the nationality of traders would be irrelevant. The tax would apply to transactions by financial institutions, governments and international organizations, producers of goods and services, commercial enterprises, and private households.

However, even leaving aside exemptions for market interventions by central banks and for transactions between governments and international organizations, there are strong economic and political arguments for exempting certain types of trades from the tax--for example, those made by market makers and those that increase market liquidity.

Indeed, a case can be made to exempt all financial intermediaries from the tax on the grounds that their trading is usually stabilizing (through liquidity trading) rather than speculative.

Taxable transactions: Applying the Tobin tax only to spot transactions involving foreign currencies is likely to be inadequate because it would be possible to avoid the tax by trading in financial derivatives. The substitutability of financial instruments thus poses a severe problem for the scheme. The markets have developed cash substitutes that would escape the tax; new short-term instruments, similar to banker's acceptances and commercial paper, could be used to evade a cash-based tax, as could foreign exchange market funds and repurchase agreements (made against collateral and not settled on central bank accounts). Moreover, financial derivatives (for example, forward transactions, futures, and financial swaps) permit the transformation of "long trading" into "short trading" with important repercussions on spot markets. The volume of such transactions has grown rapidly over the past few years and now accounts for a significant share of all foreign exchange transactions.

The tax rate: It can be argued that a tax on foreign exchange transactions should ideally operate with a zero rate (or, equivalently, a zero base) when the exchange rate for the currencies in a given transaction is in equilibrium and that the tax rate should increase in accordance with the deviation from equilibrium. This would mean a variable tax, however, and Tobin's proposal calls for a uniform tax rate. Moreover, a low, fixed-rate Tobin tax at, say, 1 percent on round-trip transactions (sale and repurchase of foreign currencies) is unlikely to deter investors who expect a short-term devaluation of 3 percent during periods of speculation. A tax rate high enough to deter speculation would seriously hamper efficient financial intermediation.

The distribution of revenue: Revenues generated by the Tobin tax would depend on a number of factors, including the tax base, the tax rate, and the volume of exempt trading.

The tax is likely to provoke a significant behavioral response by market participants that is difficult, if not impossible, to assess, although it is likely that a higher tax rate would result in a lower taxable base. Nonetheless, because of the sheer size of foreign exchange markets, revenues from the Tobin tax could be considerable. Net turnover in the world's foreign exchange markets (spot, forward, and derivative contracts) is estimated at $1.23 trillion a day.

A static revenue estimate (that is, an estimate that does not take into account behavioural reactions to the tax) for a 1 percent tax on total net turnover in all of the world's spot and derivative markets would amount to $13 billion a day, or about $3,250 billion annually (assuming 250 business days per year). But, even if foreign exchange markets were to shrink by 99 percent in response to the new tax, it would still raise sizable revenues of $32 billion. Alternatively, a tax rate of 2 basis points (0.02 percent) on $1.23 trillion could raise $64 billion annually. Such a small tax is likely to trigger only an insignificant behavioral response, and the static revenue estimate is more realistic for such a low tax rate.

Other policy options

Despite these problems, there are few alternatives to the Tobin tax that could serve as stabilizing devices in the financial markets.

Foreign asset: A tax on the domestic stock of foreign assets - as opposed to one on flows - has been used by some countries (for example, Germany and Switzerland) in the past. Such a tax would increase the opportunity costs of holding foreign assets, causing investors to shift to domestic assets. It is questionable, however, whether a tax on the stock of foreign assets can deter short-term speculation - it is more likely to have a longer-term structural impact. Moreover, discriminatory taxation of foreign and domestic assets may not be wholly consistent with the Liberalization of Capital Markets Code of the Organization for Economic Cooperation and Development or with the spirit of the World Trade Organization.

Capital flows: Another possibility would be to levy taxes on capital outflows or inflows. The United States, for example, taxed outflows during the 1960s (the interest rate equalization tax); more recently, Israel imposed a tax on inflows. But such taxes have regularly been abandoned, perhaps because of their structural impact and ineffectiveness in fighting speculation. They have also failed to resolve underlying structural problems on a more permanent basis and been difficult to reconcile with the freedom of capital movements.

Capital gains: Another alternative to the Tobin tax would be a sliding-scale capital gains tax that would be higher for short-term capital gains. However, such a tax would presumably have to be embedded in national income tax legislation; it is difficult to see how it could be coordinated at the international level. Experience with national withholding taxes on interest income demonstrates that financial markets that benefit from low or no taxes on the incomes or capital gains of foreigners have little incentive to cooperate at an international level.

A sliding-scale capital gains tax would also pose severe administrative problems because the tax rate would have to vary according to the term structure, as well as the source, of capital gains. Furthermore, in a world of integrated information and telecommunication networks, it is difficult to pin down where capital gains originate.

TWO-TIER TOBIN TAX

Achieving exchange rate stability through taxation would require high and/or varying tax rates, which would seriously obstruct the workings of international financial markets. In contrast, a small charge on international financial transactions would not create distortions but would also fail to inhibit speculative behavior in foreign exchange markets. A possible compromise would be a two-tier structure: a minimal-rate transaction tax and an exchange surcharge that, as an anti-speculation device, would be triggered only during periods of exchange rate turbulence and on the basis of well-established quantitative criteria. The minimal-rate transaction tax would function on a continuing basis and raise substantial, stable revenues without necessarily impairing the normal liquidity function of world financial markets. It would also serve as a monitoring and controlling device for the exchange surcharge, which would be administered jointly with the transaction tax. The exchange surcharge, which would be dormant so long as foreign exchange markets were operating normally, would not be used to raise revenue; it would function as an automatic circuit-breaker whenever speculative attacks against currencies occurred (if they occurred at all under this regime). The two taxes would thus be fully integrated, with the former constituting the operational and computational vehicle for the latter.

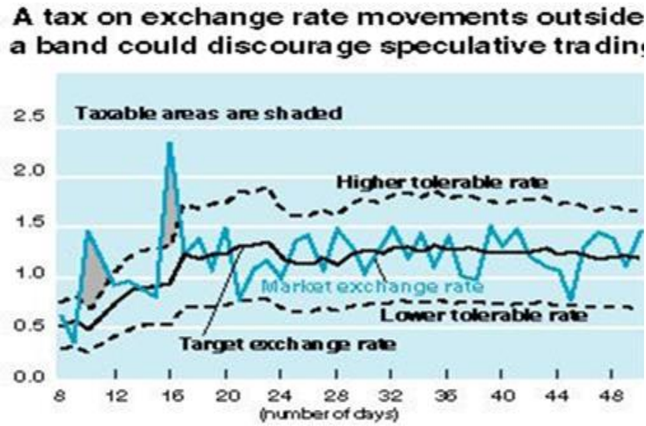
The underlying transaction tax: A minimal nominal charge of, for example, basis points on foreign exchange transactions would raise the cost of capital insignificantly and would probably have no effect on the volume of transactions involving currency conversions. A transaction tax could also be imposed on derivative trades at half the standard rate. This would allow the derivatives markets to continue functioning at low cost while preventing the use of derivatives to evade taxes.

The exchange surcharge: The exchange surcharge would be administered in conjunction with the underlying transaction tax, but its aim and implementation would be different. The aim would be to tax negative externalities associated with excessive volatility. For normal operations, the fixed-rate surcharge would be zero because the tax base is zero, which assures market liquidity and allows efficient trading.

The surcharge would be levied only during periods of speculative trading when the tax base becomes positive. It could be confined to cash transactions or, if necessary, could easily be extended to the derivative market. Ideally, if the exchange surcharge achieves its objective, it would generate no revenues.

The surcharge would be price-sensitive; it would be switched on whenever the trading price for a currency passed a predetermined threshold, which would be determined by a crawling peg (like a moving average) plus a safety margin (defined as a percentage of the target rate). The margins may vary for different currencies but the same rules would apply to all markets and to all institutions operating in the markets. Of course, the shorter time interval for the crawl is the greater scope for short-term fluctuations. The interval should, however, be short enough to avoid "leaning against the wind" - sustaining an effective exchange rate against market trends - so that markets can adjust fully to changes in fundamentals.

Whenever the tax is activated, transaction costs would rise significantly, inducing markets to smooth out large fluctuations to avoid such high costs. Traders would be given the right to reconstruct, however, because transaction costs could not be known in advance. This would make a significant proportion of contracts contingent, and speculative attacks would become more difficult to carry out because traders would automatically withdraw from markets during periods of large fluctuations in prices. Ideally, this should induce markets to behave more smoothly, in their own interests, and the tax would seldom need to be activated.



The idea is illustrated in the chart. An effective exchange rate is simulated over 50 days with a forward-looking moving average as the target exchange rate for each day.

A higher and lower tolerable rate are defined in proportion to the target rate. As long as daily fluctuations remain within the band, no tax is levied. Once the effective rate moves beyond the tolerable range, the difference between the band and the effective rate (shaded area) is taxed at a constant but high rate.

The scheme is very similar to the European Monetary System's mechanism for achieving exchange rate stability through a target rate and an admissible spread or band. However, rather than supporting a weakening currency through high premiums on overnight money deposits or through sales of foreign exchange reserves, with the exchange surcharge, currencies are defended by taxing technically well-defined windfall profits. Unlike the Tobin tax, which would indiscriminately tax all transactions at the "wrong end" and therefore penalize normal liquidity trading, the exchange surcharge would apply only to transactions at the "speculative end" and would not affect normal trading.

Ideally, the two-tier scheme would work on a global scale, as would the tax originally proposed by Tobin, but, initially, it could be implemented unilaterally by one or a few countries.

BENEFITS

The exchange surcharge proposed is intended to be a short-term stabilizing tool of monetary policy, of course; it would not be used to correct structural problems. Its purpose would be to allow smooth adjustment of exchange rates to economic fundamentals, not to restore an ailing economy to health. Nor would the surcharge be able to prevent speculative trading triggered by sudden fears of payment defaults or political crises.

The exchange surcharge would, however, avoid the negative effects of other monetary policy measures that sacrifice valuable international reserves or offer excessively generous interest rates to combat speculative attacks. Instead of depleting public assets, it would generate revenues. It would also eliminate expectations of recurrent bailouts by central banks, reducing moral hazard as well as the incidence of financial crises. Moreover, the surcharge would be likely to stabilize longer-term exchange rate movements, primarily through its impact on investors' expectations.

The goal of the surcharge - exchange rate stability - is, of course, not an end in itself. Stability reduces the scope for price bubbles and false signals, improves the allocation of international resources, and reduces risk premiums--in particular those related to inflation.

It also restores some of the autonomy governments and central banks can lose as a result of heavy speculation and may help prevent harmful political measures taken in attempts to correct misaligned exchange rates.

VIEWS ON TOBIN TAX

For	Against
It brings stability to the international financial markets, preventing the speculative monetary movements	It serves as a short-term monetary policy instrument, that it is not an effective instrument in eliminating the economic instability

With the struggle with instabilities the speculative capital led to, its fortifying the internal resources of the country	It negatively affects the development of financial markets in the developing countries
By reducing the rate of Tobin tax according to the maturity, it encourages longer termed foreign capital	When the short-term capital leaves the country, it increases the budgetary deficits
Obtaining tax income and using this income for regulating international markets	Since Tobin tax, depending on the technical and political differences, cannot be simultaneously applied by all countries, the foreign capital goes toward the tax-free transactions and the countries that ate tax heaven
With preventing the speculative capital movements, providing the stability in exchange rates and interest rates	Since Tobin tax does not satisfy the expectations of governments in case that the lower tax base forms, the fact that the tax incomes below that hoped
That IMF and World Bank provide the resource for the international stability programs and solution of social problems of the world	The thought that the taxes can be applied toward capital movements will deviate the financial markets; direct the investors; and keep the financiers out of the economy and sector or shift them to the regions exempted from tax
Together with the increase of short-term capital transactions, making the foreign investments in the	That makes the variable tax rates, tax accountabilities, and responsibilities on the tax administration complicated and

long period, and depending on this, stimulation of the real sector	that such a tax imposed ohm the capital movements reduces the effectiveness in the market
Subjecting the transactions of multinational companies that have avoided taxation to international tax	In case that with tax, the short-term capital movements decrease, constriction of trading volume; and with increase in the volatility, that exchange rate cannot realize the commercial gains
With Tobin tax, that the governments are rid of the press on the country currency and that they can more easily the economic policies	That the size of additional charge to be put on the transactions is not well calculated and depending ohm its high taxing, its raising the transaction costs and reducing the trading volume; and its negatively affecting the long termed investment

CROSS BORDER TAX

India is the largest democracy and 10th largest economy in the world. With its consistent growth performance and abundant high skilled man power, India provides enormous opportunities for investment, both domestic and foreign. Since the beginning of reforms in 1991, major reform initiative has been taken in the field of investment, trade, financial sector, exchange control simplification of procedure. India provides liberal, attractive and investor friendly investor. The world is looking at India as an attractive destination with strategic incentives and lucrative commercial advantages. As compared to other developed markets, the India is largely under penetrated with a huge potential for growth keeping in consideration government thrust on liberalization on one side and rising income, increasing awareness of financial products, strong equity market growth on the other.

As more and more investment is coming in India the clarity on regulatory and taxation front is much expected. In India taxation system is under the Department of Revenue, Ministry of Finance. Taxability of income is determined by Indian Income Tax Act, 1961. With the countries with which Indian Government have signed Double taxation avoidance agreement in that cases the taxability shall be determined by Indian Income Tax Act, 1961 read with DTAA. As per section 90(2) of the Act an assessee has an option to choose from ACT or DTAA whichever is more beneficial to him.

Foreign companies engaged in business activities in India become liable to Indian Income Tax. According to Sect. 5 (2) Indian Income Tax Act, 1961 ("ITA") nonresident companies are taxable in respect of the income received or deemed to be received, accrued or deemed to have been accrued or arisen in India. This definition covers income accruing or arising or and also deemed to have accrued or arisen to a non-resident whether directly or indirectly, through or from any business connection in India, Sect. 9 ITA. The term "Business Connection" involves a relationship between the business of the assessee and some activity in India which contributes directly or indirectly to the earning of profits and gains by the assessee from his business. This is a very broad definition rendering almost any activity of a nonresident company subject to tax in India. It is however required to be read the Double Taxation Avoidance Agreements (DTAAs) entered into by India with respective countries. The DTAAs aim at restricting the right of a state to levy tax on income received by a nonresident company from business activities pursued in that state.

According to national Indian tax law, the provisions of a DTAA apply if they are beneficial for the foreign company ("assessee"), Sect. 90 (2) ITA.

2015 U.S. CROSS-BORDER TAX CONFERENCE-Overview

The 2015 U.S. Cross-Border Tax Conference is KPMG LLP's premier tax event for clients. Its goal is to share valuable insights into the international tax issues that are so critical to our multinational clients that are operating in today's ever-changing market place. The conference held May 12-14 at the Fontainebleau Miami Beach, offers:

- **In-depth insights and perspectives on global issues.** Relevant to any organization operating in today's global business environment, you will have the opportunity to choose from a range of sessions and workshops covering current topics critical to your business including a focus on international tax, transfer pricing, M&A tax, VAT, and trade and customs.
- **Clear insights from leading tax professionals.** The conference draws leading KPMG tax luminaries and influential corporate tax executives from major organizations around the world. Interact directly with these experienced specialists, who live and breathe the real tax issues and challenges face every day.
- **Opportunities to make a real impact on your tax function.** Bring back new insights and information from the many interactive sessions, workshops, and networking opportunities that will be available and will help to meet the specific tax challenges while enabling tax to inform business decisions, providing greater strategic value to the organization.

TAXATION OF CROSS-BORDER MERGERS AND ACQUISITIONS INDIA

General anti-avoidance rule

Under the Finance Act, 2013, a general anti-avoidance rule (GAAR) came in India with effect from 1 April 2015 (financial year 2015-16). Investments made before 30 August 2010 will be grandfathered. GAAR provisions shall apply only if tax benefit arising to all parties to the arrangement exceeds INR 30 million in relevant financial year. GAAR empowers the Tax Authority to declare an 'arrangement' entered into by an assessee to be an 'impermissible avoidance agreement' (IAA), resulting in denial of the tax benefit under the provisions of the Act or tax treaty.

An IAA is an arrangement the main purpose of which is to obtain a tax benefit and which:

- creates rights and obligations that are not ordinarily created between persons dealing at arm's length
- results in the misuse or abuse of tax provisions
- lacks commercial substance, or
- is not for a bona fide purpose.

Taxability of indirect share transfers

Where a foreign company transfers shares of a foreign company to another company and the value of the shares is derived substantially from the assets situated in India, then capital gains derived on the transfer are subject to income tax in India. Further, payment for such shares is subject to Indian withholding tax (WHT).

Limited liability partnerships

The Limited Liability Partnerships Act was passed in 2009. Previously, Indian law only permitted partnerships with unlimited liability. The introduction of this law paved the way for setting up limited liability partnerships (LLP) in India. Under this law, an LLP operates as a separate legal entity, able to enter into binding contracts. LLPs are taxed as normal partnerships; that is, the profits earned by an LLP are taxed in its hands and shares of profit are exempt in the hands of the partners. The law is at a nascent stage and progressively evolving.

Direct Taxes Code Bill

A new Direct Taxes Code Bill was introduced in the Parliament in 2010. After reviewing various representations, the government has prepared a revised draft of the Direct Taxes Code, but it is unclear when it will be introduced in the Parliament. This Code is proposed to replace the existing Income Tax Act and Wealth Tax Act, and it aims to simplify existing provisions and procedures.

Value added tax

Based on judicial precedent, state-level value added tax (VAT) should not apply to the sale of a business as a whole on a going concern basis with all its assets and liabilities comprising movable and immovable property, including stock-in-trade and other goods, for a lump-sum consideration (i.e. a separate price is not assigned to each asset or liability).

VAT is a state levy, so the provisions of the laws of the state or states concerned should be examined before completing the transaction. Unlike a slump-sale, in an itemized sale, individual assets are transferred at a specified price for each asset transferred. Since the intention is clearly to sell goods as goods, a VAT liability may apply to the consideration paid for the goods.

There are mainly two rates of VAT: 12.5 percent and 4 percent, although rates vary from state to state. Depending on the nature of the item sold, the transferee may be able to recover VAT paid by the transferor through input credit.

Income tax law

Indian tax law defines 'demerger' as the transfer of one or more undertakings to any resulting company, pursuant to a scheme of arrangement under sections 391 to 394 of the Indian Companies Act, such that as a result of the demerger:

- All the property and liabilities relating to the undertaking being transferred by the demerger company immediately before the demerger becomes the property and liabilities of the resulting company.
- Such property and liabilities is transferred at values appearing in the books of account of the demerged company (for determining the value of the property, any revaluation is ignored).
- In consideration of a demerger, the resultant company issues its shares to the shareholders of the demerged company on a pro rata basis.

- Shareholders holding three-quarters of the shares in the demerged company become shareholders of the resultant company (any shares already held by the resultant company or its nominees are excluded for the purposes of this calculation).
- The transfer of the undertaking is on a going-concern basis.

NEW INTERNATIONAL ECONOMIC ORDER (NIEO)

At the Sixth Special Session of the United Nations General Assembly in 1975, a declaration was made for the establishment of a New International Economic Order (NIEO). It is regarded as "a turning-point in the evolution of the international community."

NIEO is to be based on "equity, sovereign equality, common interest and co-operation among all States, irrespective of their social and economic systems, which shall correct inequalities and redress existing injustices, make it possible to eliminate the widening gap between the developed and the developing countries and ensure steadily accelerating economic and social development and peace and justice for present and future generations."

Though the declaration on the NIEO by the General Assembly (GA) is of recent origin, the idea is not altogether a new one. In fact, a similar resolution was adopted by the GA itself long back in 1952. Again, similar demands were raised from time to time by the UNCTAD since its inception in 1964. A.K. Das Gupta, however, says that what is spectacular about the NIEO Declaration is its timing. The NIEO aims at a development of the global economy as a whole, with the set up of interrelated policies and performance targets of the international community at large.

ORIGIN OF NIEO

The movement for the establishment of the NIEO is caused by the existing deficiencies in the current international economic order and the gross failures of the GATT and the UNCTAD in fulfillment of their vowed objectives.

The present international economic order is found to be a symmetrical in its working. It is biased. It is favouring the rich-advanced countries. There has been over dependence of the South on the North. Rich countries tend to have major control over vital decision making in the matter of international trade, terms of trade, international finance, aids, and technological flows.

As a matter of fact, the basis for the NIEO is constituted by the U.N. Resolution in 1971, in the seventh special session on "Development and International Economic Co-operation" with various reforms in the area of international monetary system transfer of technology and foreign investment, world agriculture and cooperation among the Third World Countries.

The Resolution categorically mentions that "Concessional financial resources to developing countries need to be increased substantially and their flow made predictable, continuous and increasingly assured so as to facilitate the implementation by developing countries of long-term programmes for economic and social development." It emphasises global interdependence. It seeks radical changes in allied social, economic, political and institutional aspects of international relations.

New developing sovereign countries of the South have insisted on the NIEO. It has been further supported by the non-aligned nations which vehemently criticised the politicalisation of development and trade issues by the developed nations. The developing nations are now asserting their right to participate in the decision making processes of the international institutions like the IMF, World Bank, GATT, UNCTAD, etc. The origin of North-South dialogue for a new economic order may be traced back to over 30 years ago, at the Afro-Asian Conference at Bandung held in 1955. However, the formal idea of the NIEO was put forward in the Algiers Conference of non-aligned countries in 1973. In 1975, a declaration for the establishment of NIEO was adopted along with a programme of action in the Sixth Special Session of the UNCTAD.

THE NORTH-SOUTH CONVERSATION

In 1977, there was a negotiation between the North and South at the Paris talks. The developed countries agreed to provide an additional U.S. 1 billion towards the Aid Fund for the development of the poor nations. In December 1977 the Willy Brandt Commission was set up with a view to review the issues of international economic development. The WB Commission's Report (1980) stresses the need for North-South co-operation. Beside establishment of a common development fund, its recommendations include strengthening the structure of development lending a code of conduct for the multinational co-operation as well as the need for intergovernmental co-operation in monetary and fiscal areas along with the trade policies. It also proposed for the increasing participation of developing nations in the decision-making processes at international level.

As Mehboob-ul-Haque observes, the demand for NIEO is to be viewed as a part of historical process rather than a set of specific proposals. It is important facets are the emergence of non-aligned movement, the politicization of the development issue and the increased assertiveness of the Third World countries. The NIEO led to a serious thinking on the part of the developed countries (DC) to solve the problems of trade of LDCs. There has been a move towards programmed actions in two directions: (i) Commodity Agreements, with a view to stabilize prices of exportable of LDCs; and (ii) Compensatory Financing through IMF's liberal loans to LDCs having deficits due to fluctuations in prices.

NEED FOR A NIEO

- In essence, the NIEO aims at social justice among the trading countries of the world. It seeks restructuring of existing institutions and forming new organisations to regulate the flow of trade, technology, capital funds in the common interest of the world's global economy and due benefits in favour of the LDCs. It has the spirit of a 'world without borders.'
- It suggests more equitable allocation of world's resources through increased flow of aid from the rich nations to the poor countries.

- It seeks to overcome world mass misery and alarming disparities between the living conditions of the rich and poor in the world as large.
- Its aim is to provide poor nations increased participation and have their say in the decision-making processes in international affairs.
- Among other objectives, the NIEO envisages the establishment of a new international currency the implementation of SDR aid linkage, the increased stabilization of international floating exchange system and the use of IMF funds as interest subsidy on loans to the poorest developing countries.
- The crucial aim of the NIEO is to promote economic development among the poor countries through self- help and South-South co-operation.
- The NIEO intends to deal with the major problems of the South, such as balance of payments disequilibrium, debt crisis, exchange scarcity etc.

PROGRAMME OF ACTION FOR THE NIEO

- In essence, the UNCTAD resolutions provide a source of programme of action for the international economic order.
- The NIEO is not in favour of the existing system of free market orientation. It is biased in the less developed countries through interventionist approach.
- Its action programme narrates the need for a more rapid economic development of the poor countries and their increasing share in the world's trade at favourable terms of trade.
- Its line of action is to adopt discriminatory approach in trade favouring the LDCs.
- It also insists on de-politicalisation in the flow of official as well as private direct investment from the rich to the poor countries.

- It contains that aid has to be of multi-lateral form with a view to facilitate structural adjustments in the less developed countries.
- It also stresses the need for restructuring the international monetary system.
- There has been always a great opposition from the rich countries. They have vested interests which do not allow for the healthy outcome and actions in various negotiations and their implementation. Again, the poor countries have weak bargaining power in negotiations. Further, there is very weak trade link between LDCs and the socialist blocs.
- So far, however, no result-oriented action programme has been undertaken. Nevertheless, the zeal for an NIEO should be continued in the interest of the global welfare.

CONCLUSION

Recently, a number of opinion leaders, including some prominent economists, have suggested that developing countries should reconsider capital controls. The NIEO aims at a development of the global economy as a whole, with the setup of interrelated policies and performance targets of the international community at large.

REVIEW QUESTIONS

1. Do capital controls deflect capital flow?
2. Explain the objectives of capital controls.
3. Why should the international community care about capital controls?
4. In what circumstances can capital controls be considered as useful and legitimate?
5. Discuss Price vs. Capital controls
6. Explain the advantages and disadvantages of capital controls.
7. Explain the history of Chile model.
8. Discuss Capital Controls in Chile during the 1990.
9. Discuss Tobin tax with exchange rate stability.

10. Name the policies involved in Tobin tax.
11. Discuss two tiers Tobin Tax.
12. Explain the various views of Tobin Tax.
13. Explain the overview of cross border tax
14. Discuss the taxation of cross border mergers and acquisition in India.
15. Discuss NIEO and its history.
16. Explain the need for a new international order.

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