MONEY AND CAPITAL MARKETS

Paper – VI Business Environment
MBA (Evening) 3rd Year

COVERAGE

- Overview of the Financial system of an economy
- Some instruments of Financial Markets
- Meaning of Market Efficiency
- Primary and Secondary Markets
  - Functions & Role [SHORT NOTE IN INDIAN CONTEXT]
- Introduction to Foreign Exchange
  - Buying / Selling Rate
  - Spot / Forward Markets and Hedging
- Write up on SEBI

MAIN REFERENCES

1. Financial Instruments and Markets – Structure, Growth and Innovations
   Second Edition
   By L.M. Bhole

2. Indian Economy – Problems of development and planning
   Silver Jubilee (1999) Edition
   By A.N. Agarwal. Publisher – Wishwa Publisher

Topic Area (w.r.t A.N. Agarwal)	Chapter
1. Financial Systems – Role in Indian Context	35
2. Money & Money Markets	36
3. Reserve Bank and Monitory Policy	37
4. Balance of Payment : Problems and Policies	46
5. Foreign Trade : Trends and Problems	47

OTHER BOOKS FOR REFERENCE

Indian Economy
By Mishra & Puri

Indian Economy
By Dutt & Sundaram

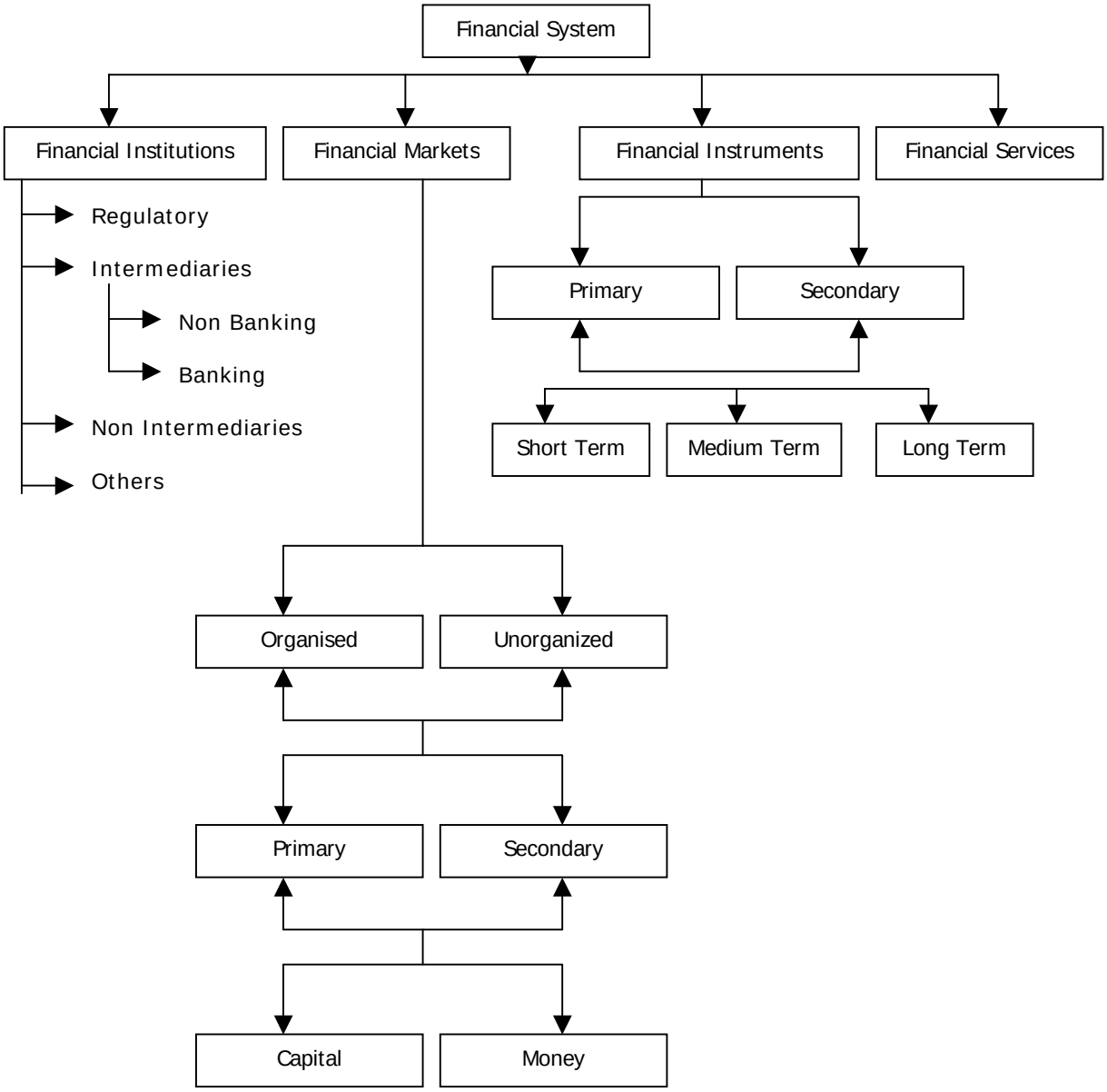
NOTE:

1. Students are advised that this handout is meant as a guide and as a short introduction to the main topic. It should not be confused with course material.

2. Students should treat the handout as indicative outline as to how to approach the topic under consideration. They are expected to build up their answers taking into consideration the reference material – given above and in the course – along with class notes, newspaper & magazines etc. Answers by the students should reflect an understanding of the theory and it's implications in the current economic scenario incorporating recent changes, if any.

OVERVIEW OF THE FINANCIAL SYSTEMS

The Financial System of any country consists of specialized and non specialized financial institutions, and of organised and non organised financial markets, of financial instruments and services which facilitate transfer of funds



Financial Institutions: are business organisations that act as mobilisers and depositors of savings and purveyours of credit and finance. They also provide various financial services to the community.

a) Intermediaries: Act as a link between the savers and the investors. They lend money, as well as they mobilize savings. Their liabilities are towards the ultimate savers whereas their assets are from investors or borrowers. E.g. All banking institutions

b) Non Intermediaries: Engage in the loan of credit, but their resources are not directly obtainable from the savers. In Indian context most of the non-intermediaries have been set up because of governmental effort to provide assistance to specific sectors and for specific purposes. E.g. IFCI, IDBI, NABARD etc.

c) Banking Institutions: A banking institution can be distinguished from other financial institutions based on the feature that they participate in the economy's payment mechanism i.e. they provide transaction service and their deposit liabilities constitute a major part of a country's money supply; and that they can – individually as well as on the whole – can create deposits, which is money. E.g. State Bank of India

d) Non Banking Institutions: Although non banking institutions have many things in common with the banking institutions, the main feature of non banking institutions is that they cannot create credit. They can only provide loan out of their resources put at their disposal by savers or other stakeholders. E.g. Unit Trust of India (UTI), LIC

Financial Markets: Financial markets are the centres or arrangements that provide facilities for buying and selling financial claims and services.

a) Primary Markets: The primary market – also known as direct market – deal in new financial claims or securities and as such are also known as new issues markets. Primary markets mobilize savings and supply fresh or additional capital to business units.

b) Secondary Markets: Deal in securities already issued or existing or outstanding. The secondary markets contribute indirectly to the supply of capital by rendering liquid the securities issued by the primary markets.

[WRITE A NOTE ON THE ROLE & FEATURES OF THE PRIMARY & SECONDARY MARKETS IN INDIA]

c) Money Markets: Money markets is a market in which transaction in short term financial assets take place. Short-term financial assets are those assets that can be readily converted into cash and / or have a maturity period of less than one year.

d) Capital Markets: Capital markets deal with financial assets which have a maturity period of more than one year.

Note: There is no essential difference between the money and capital markets. They perform the same function of transferring resources to the producers.

Financial Instruments: Financial instruments can be described as the wares in which the financial system of the country deals in. There are various types of financial instruments and they differ from each other in respect of their investment characteristics. Financial instruments can be very broadly divided into:

a) Financial Assets: Financial assets represents a claim to the payment of a sum of money sometime in the future (repayment of principal) and or a periodic (regular or not so regular) payment in form of interest or dividend.

b) Financial Securities: can be classified into primary (direct) and secondary (indirect) securities. The primary securities are issued by the ultimate investors directly to the ultimate savers as ordinary shares and debentures, while the secondary securities are issued by the financial intermediaries to the ultimate savers as bank deposits, units, insurance policies and son on.

INSTRUMENTS OF FINANCIAL MARKET

Call Money: Call money market is that part of the national market here the day to day surplus funds, mostly of the banks, are traded in. The loan made in this market is of a short-term nature – their maturity varying between one day to a fortnight. As these loans are repayable on demand and at the option of either the lender or the borrower, they are highly liquid – their liquidity exceeded only by cash.

Treasury Bills: A treasury bill is a particular kind of finance bill or a promissory note issued by the government of the country. Treasury Bills are highly liquid as they carry the guarantee of the government and because the central bank of the country is always willing to purchase or discount them. Treasury Bills in India are of the following types – 91 days treasury bill, 182 days treasury bill and 364 days treasury bill[1]. In Indian context, treasury bills have traditionally carried the lowest rates of interest as compared to other instruments. Treasury bills have an impact on the monitory policy because of their unique nature. On one hand purchase of treasury bills by commercial banks lead to a reduction in bank cash and thereby reduces their ability to create credit; on the other hand commercial banks can always replenish the depletion in the cash reserve by getting the treasury bills discounted at the central bank at any desired moment – leading to increase the cash in hand and thereby the money supply.

Commercial Bills: A bill of exchange is used to financing a transaction in goods that take some time to materialize. It shows the liability to make the payment on a fixed date when the goods are purchased on credit. A bill of exchange is treated as a "self liquidating paper". It carries a low degree of risk of loss and is an asset which is "shiftable". Commercial Bills can be classified broadly into two types – Demand Bills and Usance Bill. A demand bill is payable on presentation and the usance bill is payable at a specified later date. Traditional trading instruments like *Hundi* are classified as commercial bill.

Commercial Papers: Commercial papers are short term promissory notes with fixed maturity issued mostly by nationally reputed, credit worthy and highly rated corporations. The commercial papers market is comparatively small in India and the issue of commercial papers is regulated by RBI guidelines.

Certificate of Deposit: Certificate of Deposits (CD) represents bank deposit accounts, which are transferable from one party to another. They are marketable or negotiable short-term instruments in bearer form. CD's are virtually risk-less in terms of default of payment of interest and principal. CD's were introduced in India in 1989. As per the RBI rules issued in 1990, the minimum denomination of CDs was Rs. 10 Lakhs; and the minimum size of issue of CDs to a single depositor was 50 Lakhs. It is estimated that the commercial banks in India have a potential of issuing CD's worth Rs 7500 crores but this potential has been underutilized as India lacks an active secondary market for trading in CD's.

Government Securities or 'Gilt' Securities: The supply of government securities stems from the issue of government's marketable debt. These securities can be issued by the Central government, state government, semi-governmental agencies and authorities like City Corporation, local municipalities' etc., and other government agencies such as IDBI, IFCI etc. The government securities are unique, in the sense that it is held by the central bank of the country on behalf of the government body. As such, the government securities play an important role in the monitory policy regimen of the central bank – specially in the case of open market operations and statutory liquidity ratio. Being a government issued financial instrument with the guarantee of both income and capital government securities are also called gilt edged securities. The rate of interest payable on the government securities has been deliberately kept lower, in order to minimize future debt servicing. Central and state government securities are generally issued in three forms: (a) Inscribed stock or Stock Certificates (SC) (b) Promissory notes (PN) and (c) Bearer Bonds.

Ordinary Shares: Ordinary shares are ownership securities which have certain advantages in favor of the issuing companies and investors depending on the their attitude of risk taking. Ordinary shares allow the general public to invest in the company of his choice (by buying their stocks) and participate in the earnings and wealth of the company without limit. On the other hand ordinary shares allow the companies to raise capital quickly (by issuing new stocks) and help avoid interest payment burdens as dividend payments are not mandatory. Ordinary shares, in India, generally have a face value of Rs 10.

Preference Shares: A preference share is an instrument similar to the ordinary share but carries a fixed rate of return (dividend). The holders of the preference shares are entitled to income after the claim of the creditors of the company has been met, but before ordinary shareholders receive any income. Because of this clause of mandatory dividend, various types of preference shares are found in the market. (1) Convertible Shares are preference shares that can be converted into ordinary shares on terms and condition fixed at the time of issue. (2) Cumulative Shares are preference shares on which the dividend has to be paid. For example if the dividend is skipped in any period for some reason, it has to be paid subsequently. (3) Redeemable Shares mature in a fixed period of time and for all practical

purpose are regarded as debt securities or debentures. (4) Participating Shares earn a higher dividend than normal preference shares if the company earns a good profit. Although in theory, preference shares offer a perfect certainty of income but studies[2] have shown that in practice, holding preference shares carried almost the same risk as holding common shares.

Debentures or Bonds: Unlike the preference and common shares, debenture (or bond) is a creditorship security with a fixed rate of return, fixed maturity period, perfect income security and low capital uncertainty.

MEANING OF MARKET EFFICIENCY

The meaning of efficiency in the financial markets is on the non-wastefulness of factor use and the allocation of factors to the most socially productive purpose. A financial market is said to be efficient if it fulfills the following concepts of efficiency:

1. Information Arbitrage Efficiency: Can be defined as the degree of gains possible by the use of commonly available information. If one can make large gains by using commonly available information, financial markets are said to be inefficient.

2. Fundamental Valuation Efficiency: When the market price of a security is equal to its intrinsic value (or investment value) the market is said to be efficient. The intrinsic value of an asset is the present value of the future stream of cash flows associated with investment in that asset.

3. Full Insurance Efficiency: Full insurance efficiency indicates the extent of hedging possible against future contingencies. The greater the possibility of hedging and reducing risk, the higher is the market efficiency.

4. Functional or Operational Efficiency: The market which minimizes administrative and transaction costs, and which provides maximum convenience (or minimum inconvenience) to borrowers and lenders while performing the function of transmission of resources, and yet provide a fair return to financial intermediaries for their service, is said to be operationally efficient.

5. Allocational Efficiency: When financial markets channelize resources into those investment projects and other uses where marginal efficiency of capital adjusted for risk difference is highest, markets have said to have achieved allocational efficiency.

FOREIGN EXCHANGE MARKET

Foreign exchange market is the market in which national monitory units or claims are exchanged for foreign monitory units.

According to Foreign Exchange Regulations Act (FERA), 1973, foreign exchange means foreign currency and it includes (a) all deposits, credits, balance payable (including drafts, traveller cheques, letter of Credit and Bills of Exchange) in any foreign currency and (b) and instrument payable either, in parts or in full, in foreign currency.

Foreign exchange markets are cleared at a conversion price i.e. the exchange rate. Although the exchange rate is apparently determined by the supply and demand for foreign exchange; the complex forces of exports and imports (of goods, capital, services etc.) lie behind the whole process of exchange rate determination. In this context two definitions are important - Devaluation and depreciation. Devaluation means a deliberate reduction in the value of domestic currency with respect to the foreign currency. In other words it is a deliberate policy decision made by the government of the country in consultation with the central bank. Depreciation , on the other hand, refers to the fall in the value of the domestic currency, which is caused by the demand for foreign currency exceeding its supply in the market. This fall takes place, on its own, due to market forces of supply and demand of the foreign currency.

In the foreign exchange market, the various foreign currencies are purchased and sold either on the "spot" basis or "forward" basis. When foreign exchange is bought and sold for immediate delivery - it is a spot transaction and the exchange rate at which such a transaction takes place is know as the Spot Rate. In the case of "Forward Exchange", the transaction takes place today at an agreed future rate, known as the Forward Rate.

Role of RBI in Foreign Exchange Market: The RBI has the authority to enter into foreign exchange transaction both on its own account and on behalf of the government. It determines the foreign exchange regime, and it supervises, monitors and controls the foreign exchange market with a view to create an active exchange market. RBI establishes the day's buying and selling rate of the Rupee in terms of Dollar ($). In order to maintain the ruling exchange rate of the rupee, RBI is obliged to buy and sell foreign currency without limit at fixed rate.

A VERY SMALL NOTE ON SEBI

The Government of India set up the Securities and Exchange Board of India (SEBI) in April 1988 to control and regulate the stock exchanges in India and to promote orderly and healthy growth of the securities market. SEBI endeavors to create an environment to facilitate mobilization of adequate resources through the securities market and to provide investor protection. It also works for improvement in stock exchange infrastructure and procedures. It is entrusted with the task of supervision of merchant banking activities of mutual finds, and of ensuring transparency of transactions relating to shares by financial institutions. It is empowered to take over management of companies through acquisition of shares on the stock exchange. Any person or body proposing to engage in the business of merchant banking needs authorization from SEBI. All new mutual funds except those established by statute would require the approval of the SEBI and the existing mutual funds will have to get registered with SEBI within prescribed time limit. SEBI would prescribe accounting and disclosure requirements of mutual funds.

SEBI issues public interest advertisements in the press to enlighten investors on the basic features of various instruments and minimum precautions they should take before choosing an investment; and to create an awareness among investors about their rights and about remedies if problem arises. The investors can complain to SEBI if they face problems relating their investments in industrial securities and financial assets.

APPENDIX – I: INTRODUCTION TO MONEY AND MONEY SUPPLY

Money: Money can be defined as a generally acceptable means of payment or settling debt. It fulfils 3 main functions (I) as a medium of exchange between buyers and sellers (II) as a unit of account and (III) as a store of value or purchasing power enabling income earners to set aside a part of their current income to yield future consumption.

Money Supply: Money Supply of an economy can be termed as the sum of notes and coins, deposits - both time and demand - with financial institutions of the country.

Demand deposits are deposits that are payable by the financial institutions to the depositors on demand e.g. savings account. Time deposit is a deposit which is payable only after completion of a compulsory lock in period sometime in the future for e.g. Fixed Deposits. Encashing time deposits prior to their lock in period results in lower interest payments and penalties, whereas encashing demand deposits do not carry any such penalties.

Money supply in the Indian context is composed of the following:

M-1 : Constitutes of currency notes and coins with the public, demand deposits with the commercial and co-operative banks and "other deposits" with the Reserve Bank of India. M-1 is also called narrow money.

M-2 : M-1 + post office savings bank deposits.

M-3 : M-2 + Time deposits with commercial and co-operative banks. M-3 is also called broad money.

M-4 : M-3 + total deposits with the post office savings organisations.

Factors affecting Money Supply:

a) Deficit Financing: In simplest of terms deficit financing can be described as creation of new money to meet governmental expenses which cannot be met from governmental receipts. New Money can be created either by (I) printing currencies and notes or by (II) borrowing from the Reserve Bank of India or by (III) sale of government securities and treasury bills. Deficit financing impacts directly on the money supply by increasing M-1 and / or by increasing M-3.

b) Increase in Bank Credit: Increase in bank credit to traders and producers in the economy results in an increase in money supply. Increase in bank credit impacts on the money supply by increasing M-3 by increasing the time deposits available with the banks.

c) Increase in Foreign Exchange Reserves: In case the country has excess foreign exchange deficit, money supply gets contracted as because importers pay domestic currency to the banks to get foreign currency to meet their import obligations. When there is an excess of foreign exchange in the country the reverse takes place leading to expansion in the money supply.

Income Elasticity of Money Demand: Income elasticity of money demand may be defined as the proportionate change in the money supply (mainly M-3) due to a proportionate growth on the national income or $(dM/M)/(dY/Y)$. The importance in the income elasticity of money demand lies in the fact that it helps to determine the corresponding growth required in the money supply – to achieve a targeted rate of National Income growth. This is given by the formula

$$\text{Money Supply Growth} = (dM/M)/(dY/Y) \times \text{Targeted National Income Growth} + \text{Estimated Inflation rate}$$

Assuming that the income elasticity of money demand is 2%, estimated rate of inflation is 4% and that the government wants to achieve a growth rate of 6% in the current year; then by the above formula we get

$$\text{Money Supply Growth} = 2 \times 6 + 4 = 16\%$$

Or in other words money supply should grow by 16% to allow the economy to achieve a 6% growth rate. In a world without inflation - given the elasticity of money demand, any increase in the national wealth would lead to a corresponding growth in the demand for money. To keep the money markets in equilibrium money supply would have to match the growth or see an increase in interest rate. In such an economy (without inflation) the money supply growth would be $2 \times 6 = 12\%$. However economies are

hardly without inflation. Due to the presence of 4% inflation rate, a 12% money supply would fail to meet the target rate of growth. To prevent this, the growth in the money supply needs to match the growth in money demand (by growing at 12%) and counter the effects of erosion of value due to inflation by growing at 4% more i.e. the money supply should grow by 16%.

APPENDIX – II: POLICY IMPLICATIONS OF BOP DISEQULIBRIUM

BOP Disequlibrium: A country is said to be suffering from a BOP Disequlibrium when the country's BOP is running in deficit for a long period of time. This means that the spending on imports far exceeds the earnings from exports. This phenomenon allows us to redefine BOP Disequilibrium as follows – " a country is said to be suffering from BOP Disequilibrium when the foreign exchange reserves of a country with the country's central bank (and/or with the IMF) keeps on declining for a long period of time".

Policy implications of BOP disequilibrium: The implications of BOP Disequilibrium have a deep impact on the internal policies of the country and on the functioning of the domestic economy.

Under Fixed Exchange Rate Regime: To overcome the BOP crisis, the country in question has to support artificially high interest rates to attract foreign capital into the country. Alternatively the country has to adjust its fiscal variables to control the BOP crisis. The one to one correspondence between the BOP deficit and the fiscal deficit makes matter worse for the economy. As the BOP deficit persists, the government is forced to confront the fiscal deficit and bring it under control. However in doing so the government is faced with unpleasant choices. If we assume that the government is unable to increase revenues within the country - as the sources of revenue are already nearing exhaustion – the government is forced to cut its own expenditure. If the government chooses to reduce unproductive expenditure then it has to face the serious consequences of being re-elected to power. On the other hand if the government chooses to curtail productive expenditure – it has to face the consequences of loosing out on revenue earning and thereby enlarging the fiscal deficit in the next financial year. Now as the fiscal deficit is the *de facto* measure of a country's economic health in the international market - it implies that the government will loose credibility in the international market thereby compounding the BOP crisis.

If the government does not want to tamper with the fiscal deficit then the onus of controlling the BOP deficit lies on the central bank of the country. The central bank has to artificially increase the interest rates to attract foreign capital. Keeping the interest rates high, may or may not attract foreign capital, but it certainly discourages domestic investment - as the domestic investors find the high interest rates unattractive. This, in turn, has serious implications for the growth rate, employment, income distribution and stability of the economy.

Under Flexible Exchange Rate Regime: In response to the above problems, economists generally suggest a policy of flexible exchange rate. According to the proponents of the flexible exchange rate policy, the exchange rate would be determined by the market forces and will automatically reach the level at which the demand of foreign exchange equals the supply of foreign exchange. This will allow markets to clear automatically and consequent help bring the BOP equilibrium.

However the simplistic solution may not be always possible. Given that the country opts for flexible exchange rate **two scenario**s' can result – (I) the country is not lucrative enough for foreign investment or (II) the country is lucrative for foreign investment. If the former case results then in spite of allowing flexible exchange rate nothing much would be gained. However if the latter is the case, then the country is faced with a new set of problems. With foreign exchange flowing in to the country the demand for domestic currency will rise – forcing the domestic currency to appreciate vis-à-vis the foreign currencies. Now as soon as the domestic currency appreciates; exports will become expensive and imports will become cheap. This in turn will impact directly on the trade deficit, which will increase. Trade deficit being a component of the BOP would lead to increase on the BOP deficit (unless and until the earnings Balance of Current Account and Balance of Capital Account help offset the increase in the trade deficit) and again the government will be forced with the *hobson's choice* described above.

Sequencing of Policy Rules: Thus we see that BOP Disequilibrium has large-scale impact on the domestic economy. Fixed exchange rate regimes are probably not the answer to the BOP problem. Flexible exchange rate regime do allow some scope for managing the BOP deficit but the question then arises is that "should the economy following fixed exchange rate regime jump into the flexible exchange regime overnight?" To provide a simple answer – it would be better if flexible exchange regime was introduced in a phased manner.

BOP consists of three segments – Balance of Trade (BOT), Balance of Current Account (BOCA) and Balance of Capital Account (BOKA). Let us for the moment assume that domestic currency is made free on all three accounts. In such a case if the country is lucrative for investment – scenario II described above may well result – resulting in growing deficit as trade deficit continues to increase because of demand pressure on the domestic currency.

To combat the growing fiscal deficit the government would first need to find ways and means to get it's own fiscal house in order. Once the deficits are brought under control the government would need to encourage domestic financial markets and develop them to become competitive *a la* foreign financial markets. This becomes necessary because in a fixed exchange regime having huge deficits, interest rates are deliberately kept low so as to facilitate government borrowings. The interest rates being low, the domestic financial market does not get a scope of growth (or to become competitive) as the return on investments are already secure because of government policies. Once the domestic financial markets become mature enough to handle market forces, the government should start liberalising the exchange rate in a phased manner – providing time for the economy and the domestic market to adjust to partly flexible exchange rates. Once the government is sure of its market's capability of handling flexible exchange rates and free rates of interest; then an only then the government should consider opening up the BOKA. This process is termed as "sequencing of policy rules" and in short, the steps can be summed up as follows:

1. Fiscal Reforms – to get the fiscal house in order.
2. Financial Market Reforms – Develop the financial market and deregulate interest rates.
3. Flexible exchange rate on BOCA
4. Flexible exchange rates on BOKA

[1] Some changes may have taken place in the duration of the Treasury bills. Most probably 182-day bills have been dropped in favour of 364 days bill – but please check with a Central Bank or other recent publications.

[2] L.C. Gupta "Preference Shares and Company Finance", IFMR, Madras 1975, page 19