An efficient capital market is perfect if the above-mentioned conditions are fully satisfied. A capital market which is otherwise reasonably efficient will have imperfections, to the extent it does not satisfy the conditions for the perfect capital market. There are three significant imperfections that may be found in most capital markets in different degrees:

- *Tax asymmetries* Most economies have varieties of taxes and tax incentives which cause tax asymmetries. Tax asymmetries make security transactions more beneficial to some. A number of financial transactions may create additional wealth for some because of tax differences.
- *Information asymmetries* Most financial information is published and is publicly available. But, sometimes, certain persons may have superior information than others. These persons may earn abnormal returns for some time. In certain economies, the quality of the disclosure of information is low. All information is not easily and timely available and it involves cost. Certain kinds of information provide signals to the market participants. In an efficient capital market, all information is speedily incorporated in the prices.
- *Transaction costs* Transaction costs do not affect the prices. But they can cause one transaction to be more profitable than the other. Transaction costs of two similar financial transactions may be different. Thus, investors would prefer one transaction over the other. Similarly, transaction costs of two persons to a transaction may be different.

In practice, capital markets have imperfections. Efficient markets may not be perfect. For developing frameworks for analysing financial decisions, a good starting point is to assume that capital markets are perfect. Once a framework is obtained, the practical implications of market imperfections can be analyzed.

CHECK YOUR CONCEPTS

1. Briefly explain two important functions of capital markets.
2. What is meant by 'randomness of share prices'?
3. Define capital market efficiency.
4. What are three forms of capital market efficiency? Explain briefly.
5. What is meant by perfect capital markets? What are their attributes?

CAPITAL MARKETS IN INDIA[5]

Capital market facilitates the free trading (buying and selling) in all securities. It has two mutually supporting and indivisible segments: the **primary market** and the **secondary market**. In the primary market the companies issue new securities to raise funds. Hence it is also referred to as the **new issues market**. The secondary market deals with the second-hand securities; *viz.*, securities that have already been issued by companies that are listed in a stock exchange. Since the securities are listed and traded in the stock exchange, the secondary market is also called the **stock market.** In the primary market, companies interact directly with investors while in the secondary market investors interact with themselves. In both cases, the capital market intermediaries (the investment or merchant bankers, stock brokers etc.) play an important role. The secondary market, based on all-available information, determines the price and risk of the issued securities. It provides useful signals to both listed companies and investors to act in the primary markets.

The secondary market may also include the **over-the-counter** (OTC) **market** and the **derivatives market**. In the stock market, the share prices are determined by the demand and supply forces. On the other hand, in the OTC market, prices are negotiated between the buyer and the seller. The derivatives market deals in futures and options. In the derivatives markets, securities or portfolios of securities (for example, a market index) are traded for future delivery. In case of options, the future delivery is conditional as the option buyer has a right to exercise or not to exercise the option.

PRIMARY CAPITAL MARKET IN INDIA

Primary capital market is a conduit for the sale of new securities. Listed (existing or new) companies may make the public issues of shares. The **initial public offerings** (IPOs) are the public issues of securities by new companies for the first time. In the IPOs or public offerings, made by the established companies, securities are sold to the public—all individuals and institutional investors.

Private corporate sector did not show much enthusiasm to offer shares to the public till 1980, because of the following factors:

- Small size of the operations and narrow capital base
- Availability of loan capital on easy terms from the term-lending institutions
- Fear of losing control over the company
- Highly regulated environment

5. The discussion of Indian capital markets in this chapter draws a lot of data and information from National Stock Exchange, *Indian Securities Market: A Review,* Mumbai: National Stock Exchange Volume X, 2007. Other references, which provide useful historical perspective on Indian capital markets, include M.R. Mayya, *Indian Stock Markets* (talk delivered in Hong Kong, 12 April, 1990), and *Indian Stock Markets: Prospects, Problems and Prescriptions* (talk delivered at IIM, Ahmedabad).

The decade of 80s, however, witnessed a sea change in the funds mobilization efforts of companies through public issues of equity and debt, encouraged by the deregulation of capital markets and other economic reforms. As a result, the annual funds mobilization in the new issues market, which was only to the tune of about ₹700 million in 60s and ₹900 million in '70s, increased substantially during the 80s.[6] The funds raised through the public issues of corporate securities by the non-government companies amounted to ₹43,120 million in 1990–91 which increased to a phenomenal level of ₹264,170 million in 1994–95. Thereafter, it started decreasing. Again there was spurt in the funds mobilization through public issues in the period from 2004–05 to 2007–08; funds of ₹323,820 million were raised in 2006–07. The funds mobilized in 1990–91 were 3.3 per cent of gross domestic savings (GDS) and 10.5 per cent in 1994–95 and much higher in 2006–07. In 2012-13, the corporate sector riased ₹340300 million. The private placement amounted to 49.3 per cent of total resourced raised; while public issues contributed to 1.2 per cent.

Financial Instruments

Equity and debt are the two basic instruments of raising capital from the primary markets. Equity was more important source of capital until 1995–96. The share of equity in funds mobilization through public issues was 72 per cent in 1995–96, which declined to 15 per cent in 1998–99. After showing an increase in 1999–2000 and 2000–01, the share of equity has dropped to about 17 per cent (Table 19.2) in 2002-03 and picked up substantially afterwards. Debt and equity contributed almost equally in 2012–13.

Table 19.2: Resources Mobilized through Debt and Equity *(in per cent)*

Year	*Equity*	*Debt (%)*
1995-96	72.39	27.61
1998-99	15.34	84.66
1999-00	58.41	41.59
2000-01	52.79	47.21
2001-02	16.88	83.12
2002-03	18.00	82.00
2003-04	80.47	19.53
2006-07	100.00	00.00
2011-12	55.23	44.77
2012-13	52.00	48.00

Source: NSE, Indian Securities Markets Review, 2008, Prime Annual Report

Companies, in practice, offer a number of variations of equity and debt securities. They include:

- ***Ordinary shares*** Ordinary (equity) shares represent the ownership position in a company. The holders of the equity shares are the owners of the company, and they provide permanent capital. They have voting rights and receive dividends at the discretion of the board of directors.
- ***Preference shares*** The holders of the preference shares have a preference over the equity in the event of the liquidation of the company. The preference dividend rate is fixed and known and is payable before paying dividend on the ordinary share capital. Companies in India can issue redeemable preference shares; but they can't issue irredeemable preference shares. A preference share may also provide for the accumulation of dividend. It is called a cumulative preference share. Companies in India now hardly issue preference shares.
- ***Debentures*** Debentures represent long-term debt given by the holders of debentures to the company. Debentures maybe secured or unsecured. Secured debentures are also known as **bonds**. The rate of interest on debentures is specified and interest charges are treated deductible expenses in the hands of the company. Straight debentures, without a conversion feature, are called **non-convertible debentures** (NCDs). Debentures may be issued without an interest rate. They are called **zero-interest debentures**. Such debentures are issued at a price much lower than their face value. Hence they are also called **deep-discount debentures/bonds**.
- ***Convertible debentures*** A debenture may be issued with the feature of being convertible into equity shares after a specified period of time at a given price. Thus a convertible debenture (CDs) will have features of a debenture as well as equity.
- ***Warrants*** A company may issue equity shares or debentures attached with warrants. Warrants entitle an investor to buy equity shares after a specified time period at a given price.
- ***Cumulative convertible preference shares (CCPS)*** CCPS is an instrument giving regular returns, at say, 10 per cent, during the gestation period from three years to five years and equity benefits thereafter. In India, the Government introduced CCPS in 1984. However, it has failed to catch the investors' interest mainly because the rate of return was considered too low in the initial years and the provision for conversion into equity was also unattractive, if the company failed to perform well.
- ***Derivative securities*** Securities with options to buy or sell are called derivative securities. CDs, CCPSs and warrants are examples of **derivative securities**.

6. National Stock Exchange, *Indian Securities Market: A Review*, Mumbai: National Stock Exchange, 2007.

- ***Borrowings from financial institutions*** In India, besides issuing debentures, companies raise debt capital through borrowings from the financial institutions and banks. Banks are the important source of working capital for companies.

The offerings of securities maybe made only to the existing shareholders. When the securities are offered only to the company's existing shareholders, it is called a **rights issue**. Table 19.3 gives data of resource mobilization from public issues, IPOs. It is clear from Table 19.3 that public issues were preferred routes of mobilizing capital than the rights issues in 2005-06, but the situation reversed in 2006-07, and public issues because insignificant in 2012-13.

Table 19.3: Resource Mobilization from IPOs and Rights Issues

(₹ million)

Issue	*2005-06*		*2006-07*		*2011-12*		*2012-13*	
	Number	*Amount*	*Number*	*Amount*	*Number*	*Amount*	*Number*	*Amount*
IPOs	79	109,360	77	285,040	34	59,000	33	65,000
Public Issues	24	123,580	8	12,930	1	46,000	-	-
Rights Issues	36	40,880	39	37,110	16	24,000	16	89,000

Source: SEBI, cf., NSE, *Indian Securities Market*: *A Review*, Mumbai: NSE, 2013.

Note: Numbers are rounded off.

Private Placement

Instead of a public issue of securities, a company may offer them privately, only to a few investors; that is, less than 50 in number. This is referred to as **private placement** of securities. It maybe noticed that private placement has become the most significant method of mobilizing funds adopted by the Indian companies recently. About 30 per cent of total funds mobilized by the public and private companies in 1990–91 was through private placement, and this increased to 100 per cent in 2006–07 and it was about 49 per cent in 2012–13. The reasons for this development are:

- Private placement of securities is subject to much less compliance than the public issues
- Private placement is cost effective as compared to public issues
- Private placement is time effective as deals can be easily and directly negotiated with a few investors
- Private placement helps to tailoring the issues according to the needs of the companies

The private placement market, however, has several limitations for the efficient functioning of the capital markets. There is little information available about this market and there is little transparency.

Euro Issues

The increasing use of euro issues by the Indian companies also indicates that Indian capital market is integrating with the international capital markets. Companies in India have also started raising funds via **euro issues** in the foreign capital markets. Euro issues include **foreign currency convertible bonds** (FCCBs), **global depository receipts** (GDRs) and **American depository receipts** (ADRs). ADRs and GDRs are like shares and they are traded in the overseas stock exchanges. Indian companies raised significant amount of funds by way of euro issues in 90s. In 2013, the euro issue contributed ₹10,000 million. This has declined from ₹94,000 million in 2010-11 and ₹27,000 million in 2011-12.

Government Securities

Both the central and state governments borrow large sums of money from the primary market by issuing **dated securities** (long-term securities) and **Treasury bills** (T-Bills). T-Bills in India are issued for short duration. The total issue of government securities has increased over years. The central government's mobilization of funds from the primary market was ₹6,685 billion in 2012–13, ₹6,004 billion in 2011–12 and ₹4,795 billion in 2010–11. The state governments' mobilization of funds from the primary market was ₹1,773 billion in 2012–13, ₹1,586 billion in 2011–12 and ₹1,040 billion in 2010–11. A large part of the central government's borrowings goes in financing the fiscal deficit.

The largest holders of the government securities are the commercial banks followed by the Life Insurance Corporation of India (LIC). They are, in fact, captive investors for the government due to various investment restrictions. The Reserve Bank of India (RBI) has created a primary auction market with authorised primary dealers. More auctions have started taking place on market basis. But still the government securities are not issued entirely at market interest rates.

Pricing of New Issues

Until 1992, the Controller of Capital Issues (CCI) used to decide the prices of securities to be offered to the public. CCI does not exist now and it has been replaced by SEBI. Companies in India can freely price share issues, subject to the SEBI guidelines. In the case of the listed companies, the current market price provides a basis for pricing the new issue of securities. Companies generally fix the issue price 10 to 15 per cent below the current market price to account for the effect of the supply pressure. It is relatively difficult to price an IPO. Companies use the services of the merchant or investment bankers, who act as issue managers, to determine the issue price and manage the issue of securities.

A company is required to issue a **prospectus** when it issues shares to the public. The prospectus should disclose full information, including the risk factors in the issue, to the investors to be able to appraise the pricing and form a judgment. New companies should give the justification for the pricing to the prospective investors. Generally, the price of the issue is fixed well before the actual issue. The price is not changed at any stage. This price is generally kept on the lower side so that the issue is fully subscribed and there is no devolvement on undewrites. However, **book building** is an alternative to the fixed-pricing method.

Book Building and Price Discovery

In the case of a normal public issue, the price is fixed and known in advance. At the close of subscription, the company knows the number of shares applied for. **Book building** is an alternative to the traditional fixed-price method of security issue. In book building the issue price is not fixed. Book building is a process of offering securities at various bid prices from investors. There is a *price band* with the *floor price* (lower price) and the *ceiling price* (higher price). The demand for the security is assessed and the price is discovered based on bids made by investors. **Price discovery**, therefore, depends on the demand for the shares at different prices. In book building, the issuing company indicates the floor price but not the ceiling price. Book building involves the following steps:

- The company plans an IPO via the book building route.
- It appoints an issue manager (usually a merchant banker) as book-runner.
- It issues a draft prospectus containing all required disclosure.
- The draft prospectus is filed with SEBI.
- The issue manager (book-runner) appoints syndicate members and other registered intermediaries to garner subscription.
- Price discovery begins through the bidding process.
- At the close of bidding, book-runner and the company decide upon the allocation and allotments.

Bids should be submitted electronically through the syndicate members. The bids should remain open for at least five days and the demand should be displayed at the end of every day. The issue manager can then determine the issue price in consultation with the issuing company. The book building enables faster issue of securities at lesser cost and trading can commence quite early, viz., within 15 days from the closure of the issue.

The price under book building is the price that the market can bear, and it is usually higher than the price under the fixed-pricing method. It is believed that the book-building route of pricing is in favour of issuers, and that this method has made IPOs less attractive and risky for the ordinary investors.[7]

CHECK YOUR CONCEPTS

1. What is a primary market? Why primary market was not active in India until '80s?
2. Name the financial instruments that are used in India?
3. What is private placement? What are the reasons for the development of the private placement in India?
4. Explain the process of book building and price discovery.

SECONDARY MARKETS IN INDIA

Secondary capital markets deal in the second-hand issued securities. Stock exchanges are secondary markets where buyers and sellers trade in already issued securities. A stock exchange provides the following useful economic functions:

- Help in determining **fair prices** based on demand and supply forces and all-available information
- Providing easy **marketability** and **liquidity** for investors
- Facilitation in **capital allocations** in primary markets through price signalling
- Enabling investors to **adjusting portfolios** of securities

India has one of the oldest stock markets in Asia, viz., the *Bombay Stock Exchange* (***BSE***). BSE was established in 1875. Later on, many more stock exchanges were established in other Indian cities like Ahmedabad, Calcutta, Madras, Kanpur etc. Until the 80s, there were eight stock exchanges in India; the number has now increased to 23. However, in terms of business activities, the two most prominent all-India stock exchanges are the Bombay Stock Exchange (BSE) and the National Stock Exchange (**NSE**). NSE was set up in June 1994. It started the **screen-based trading** in India which has been now adopted by BSE and other stock exchanges as well.

7. Gupta, L.C., "Asymmetric Information, Book Building and Investor Protection", *NSENEWS*, February 2002.

The relatively high level of issued capital required for a company to be eligible to be listed in a stock exchange, prompted the Government of India to grant recognition to the **Over-the-Counter Exchange of India** (OTCEI), which was promoted by Unit Trust of India, Industrial Credit and Investment Corporation of India Ltd. and others. OTCEI is also a screen-based market.

The Securities Contracts (Regulation) Act 1956 was the first all-India legislation regulating the stock exchanges in the country. Now the **Security Exchange Board of India** (SEBI) regulates the operations of the primary and secondary markets in India.

Securities and Exchange Board of India (SEBI)

The establishment of the Securities and Exchange Board of India (SEBI), on the lines of the Securities and Investment Board of the UK, is a major development in the Indian capital market. SEBI, which was established on the 12 April 1988, is required to take a holistic view of the Indian securities markets. SEBI is required to regulate and promote the securities market by:

- Providing fair dealings in the issues of securities and ensuring a market place where funds can be raised at a relatively low cost;
- Providing a degree of protection to the investors and safeguard their rights and interests so that there is a steady flow of savings into the market;
- Regulating and developing a code of conduct and fair practices by intermediaries in the capital market like brokers and merchant banks with a view to making them competitive and professional.

Developments in Stock Market[8]

There has been impressive growth in the number of shareholders, number of listed companies, market capitalization and stock turnover in India over last many years. The number of shareholders is estimated to be about 40 million; twenty years ago it was estimated to be one million. Thus India, after USA, has the second largest population of shareholders.

Table 19.4 contains selected indicators of the stock market operations.

The state of the secondary market is described in Indian Securities Market-A Review, NSE, 2013 (page 19):

> The exchanges in the country offer screen-based trading system. There were 10,128 trading members registered with SEBI at the end of March 2013 (Table 19.4). The market capitalization has grown over the period, indicating that more companies are using the trading platform of the stock exchange. The market capitalization on BSE (taken as a proxy for India) was around ₹63,878 billion (US $ 1,174 billion) at the end of March 2013. Market capitalization ratio is defined as the market capitalization of stocks divided by the GDP. It is used as a measure that denotes the importance of equity markets relative to the GDP. It is of economic significance since the market is positively correlated with the ability to mobilize capital and diversify risk. The all-India' market capitalization ratio decreased to 63.7 per cent in FY 2013 from 69.3 per cent in FY 2012.
>
> The trading volumes on the stock exchanges had picked up from FY 2003 onwards. It stood at ₹9,689 billion (US$ 203 billion) in FY 2003, and witnessed a year-on-year increase of 67.3 per cent in FY 2004, standing at 116,209 billion (US $ 374 billion). The upsurge continued for the next few years, and in FY 2007, the turnover showed an increase of 21.4 per cent, reaching ₹29,015 billion (US$ 666 billion) from ₹23,901 billion (US$ 536 billion) in FY 2006. Significant increase of 76.8 per cent was witnessed in trading volumes in FY 2008 followed by a fall of 24.9 per cent in FY 2009, Trading volume, again peaked at ₹55,168 billion (US$ 1,222 billion) in FY 2010. Since last three years, the turnover in all India cash market has plunged continuously. In FY 2011, the cash maiket witnessed a fall of 15.1 per cent to ₹46,850 billion (US$ 1,049 billion) in FY 2011, while in FY 2012, it dropped by 25.6 per cent to ₹34,844 billion. The downward trend continued in FY 2013 and fell 6.5 percent to ₹32,571 billion.

NSE's S&P CNX Nifty and BSE's Sensex are two widely used stock exchange indices. Table 19.4 shows trends in two indices. The indices have generally shown an increasing trend.

Government Securities Market

The private corporate debt market is not well developed in India. The government debt market constitutes about three-fourths of the debt market in India. Commercial banks and financial institutions in India own a large proportion of the government debt securities due to statutory liquidity and other investment requirements.

In the primary market, the amount of the governmnet debt raised was ₹7590 billion in 2011–12 and ₹8,658 billion in 2012–13. On the other hand, the turnover in the secondary market was many times of the amount raised in the primary market. Turnover was ₹73,431 billion in 2011–12 and ₹120,116 bilion in 2012–13.

NSE has developed the wholesale debt market WDM (wholesale debt market) for government securities. The share of the NSE WDM segment has been significant in the total turnover of the government securities. The government debt securities have high level of liquidity. The turnover of the dated securities

8. For a detailed analysis of the stock market developments, refer to NSE, *Indian Securities Markets: A Review*, Mumbai, NSE, Vol. 2, 2013.

Table 19.4: Secondary Market - Selected Indicators

At the End of Financial Year	*Capital Market Segment of Stock Exchanges*								
	No. of Brokers	*Nifty 50*	*Sensex*	*Market Capitalisa-tion <T mn)*	*Market Capitalisa-tion (US $ mn)*	*Market Capitalisa-tion Ratio (per cent)*	*Turnover (? mn)*	*Turnover (US $ mn)*	*Turnover Ratio (per cent)*
2000-01	9,782	1148.20	3,604.4	7,688,630	164,851	54.50	28,809,900	617,708	374.71
2001-02	9,687	1129.55	3,469.4	7,492,480	153,534	36.36	8,958,180	183,569	119.56
2002-03	9,519	978.2	3,048.7	6,319,212	133,036	28.49	9,689,098	203,981	153.33
2003-04	9,368	1771.9	5,590.6	13,187,953	303,940	52.3	16,209,326	373,573	122.91
2004-05	9,128	2035.7	6,492.8	16,984,280	388,212	54.4	16,668,960	381,005	98.14
2005-06	9,335	3402.6	11.280.0	30,221,900	677,469	85.6	23,901,030	535,777	79.09
2006-07	9,443	3821.6	13,072.1	35,488,081	814,134	86.0	29,014.715	665,628	81.76
2007-08	9,487	4734.5	15,644.4	51,497,010	1,288,392	109.3	51,308,160	1,283,667	99.63
2008-09	9,628	3021.0	9,708.5	30,929,738	607,061	54.9	38,520.970	756,054	124.54
2009-10	9,772	5249.1	17,527.8	61,704,205	1,366,952	95.3	55,168,330	1,222,161	89.41
2010-11	10,203	5833.8	19,445.2	68,430,493	1,532,598	87.8	46,850,341	1,049,280	68.46
2011-12	10,268	5295.6	17,404.2	62,191,859	1,215,718	69.3	34,843,820	681,122	56.03
2012-13#	10,128	5682.6	18,835.8	63,878,869	1,174,998	63.7	32,570,860	599,113	50.99
Apr-Sep'13#	9,606	5735.3	19,379.8	63,861,340	1,001,310	63.7	16,587,800	260,087	25.97

Note
#: Data for Market capitalization is only on BSE SGL turnover excludes turnover on NDS-OM Source: SEBI, BSE, and NSE.

has been higher in the recent years. The primary dealers offer two-way quotes for the active government securities.

Derivatives Market

Derivatives are securities *derived* from other securities (called underlying securities) like equity, debt, or any other type of security. They also include contracts that derive their values from prices or index of prices. In India, the OTC derivatives are not allowed; the legal derivatives must trade on recognised stock exchanges only. Derivatives trading in India started in June 2000, with SEBI approving trading in **index future contracts,** based on BSE's Sensex index and NSE's S&P CNX Nifty index. Immediately after this, approval for trading in options in these two indices and some individual shares followed in July 2001.

Trading in derivatives mostly takes place in NSE, accounting for the large volume share of the contracts and traded value. As indicated in ISMR (2007), Index Futures and Options were first traded on the benchmark index Nifty 50. Nifty 50 constituted 99.64% of the total number of index contracts traded on NSE, with 76.05% of the contract trades in Index Futures and 23.59% in Index Options during the period 2006-07. Thereafter, trading was extended to CNX IT index on 29 August 2003 and Bank Nifty on June 09. The equity derivatives market turnover on the Indian exchanges increased by 20.3 per cent to ₹386,965 billion in 2013 from ₹321,582 billion in 2012. The currency derivatives trading in India started in August 2005 at NSE. The currency derivatives turnover in India was ₹52,475 billion in 2013. The number of contracts and traded value of index futures and index options.

Trading and Settlement

Investors can carry out their operations (buying and selling of securities) through brokers and sub-brokers. A **broker** is an enrolled member of a stock exchange who is authorized to the stock exchange trade. He or she is registered with SEBI. **Sub-brokers** are affiliated to the members (brokers) of the stock exchange and registered with SEBI as sub-brokers. Investors can hold and trade in securities in dematerialized form.

Dematerialization of shares Dematerialization is a process of changing paper certificates of securities into electronic form and recording in computers by a depository. A **depository** holds shares in dematerialized (demat) form, maintains ownership records and also facilitates transfer of ownership. All transactions take place through computers without paper work. An investor may hold shares in physical or demat form, but he or she can trade and settle deals in most shares easily in demat form. In India, there are two depositories—NSDL and CDSL, who compete with each other. Dematerialization of shares in India was introduced in 1998. Within three years, a very high level of dematerialization was achieved. Now almost 100 per cent trades are settled in demat form. The growth of dematerialization in India has been the fastest in emerging capital markets and most developed markets. The following features maybe observed about dematerialization:[9]

- Fall in settlement and other charges
- No stamp duty
- Depository facility has effected changes in the stock market microstructure
- Breadth and depth of investment culture has further got extended to interior areas of the country faster
- Explicit transaction cost has been falling
- Increased growth in turnover

Trading Buying and selling of shares is an agreement between the broker/sub-broker and the client (investor) once he or she has filled in a client registration. The broker charges a fee, which is between 0.50 per cent and 1 per cent of the value of transaction, for executing the transaction in the stock exchanges. Sub-brokers cannot charge commission more than 1 per cent. Stock exchanges have a scheduled pay-in day and pay-out day. The **pay-in day** is the day when the broker makes payment or delivery of securities to the exchange. The **payout** day is the day when the exchange makes payment or delivery of securities to the broker.

Rolling settlement In rolling settlement system, the trading period (T) is one day. With effect from 1 April 2003, the obligations have to be netted and settled on the 2nd working day on a $T + 2$ rolling settlement scheme. For example, the trade done on Monday will be settled on Tuesday. Every day is a settlement day in the rolling settlement scheme. Hence it is necessary that securities are held in demat form.

SEBI introduced rolling settlement cycle of five days for most active securities with effect from 2nd July 2001 and for remaining securities with effect from 31st December 2001. Before this change, trade settlement was inefficient; the trades carried out from Mondays to Fridays were settled by payment of monies and delivery of securities in the following week. Under this system, trades done on a Monday would get settled Thursday next week. The rolling settlement cycle of 5 days was subsequently brought down to three days and finally to two days.

Circuit breaker Extreme volatility in the stock market is not considered healthy. The **circuit breaker** or **price bands** system helps to control the extreme volatility. From 2 July 2001, SEBI moved to a system of index-based circuit breaker system market-wide. The system applies when the market moves in either direction by specified circuit breakers (limits). The three stages of the market movement are 10 per cent, 15 per cent and 20 per cent. Whenever these limits are breached, depending on the extent of breach, the stock exchange authorities will halt the market for the specified period. These circuit breakers bring about a co-ordinated trading halt in all equity and equity derivatives market across the country, and the movement of either BSE Sensex or the NSE S&P CNX Nifty, whichever is breached earlier, triggers the market-wide circuit breakers.[10]

CHECK YOUR CONCEPTS

1. What are the functions of the secondary market?
2. What is meant by dematerialization of shares?
3. What is the concept of rolling settlement?

MERCHANT BANKING: ROLE IN CAPITAL MARKETS

Merchant banks, also called **investment banks**, are the most significant institutions in the financial markets of the developed countries. They help in promoting and sustaining the capital markets, and they provide a variety of financial services to the corporate sector. In Europe, they perform these functions along with the commercial banking functions. Investment banks in the USA perform merchant banking functions, and they are prohibited from carrying on the commercial banking activities.

Merchant banks are needed in developing countries for developing and activating the capital markets. With the deregulation and liberalisation of financial sectors in a number of developing countries, merchant banking activities are assuming a very important role. The scope of merchant banking activities has been expanding in India over the years. The recent changes in the Indian economy and financial markets are expected to provide a further impetus to the faster development of the merchant banking.

9. SEBI, "Dematerialisation: A Silent Revolution in the Indian Capital Market", Working Paper, April 2001; cf., NSE, *Indian Securities Market: A Review*, Mumbai, NSE, 2002, p. 120.
10. NSE, *Indian Securities Markets: A Review*, *op. cit.*, 2002.

KEY CONCEPTS

Capital market efficiency
Circuit breaker
Convertible securities
Cumulative abnormal return (CAR)
Cumulative convertible preference shares (CCPS)
Deep-discount debentures
Derivatives
Derivatives market
Event studies
Hedge funds
Index funds
Information asymmetries
Market capitalization
Market makers
Mutual funds
OTC market
Perfect capital market
Price bands
Primary markets
Random walk hypothesis
Rolling settlement
Secondary markets
Semi-strong form of efficiency
Serial independent
Strong-form of efficiency
Tax asymmetries
Transaction costs
Warrants
Weak form of efficiency
Zero-coupon bonds

STUDENT'S ACTIVITIES

REVIEW QUESTIONS

1. Explain the concept of the capital market efficiency. What are the different forms of the capital market efficiency?
2. What is the difference between the primary market and the secondary market? Briefly describe some significant developments in the stock markets in India.
3. Briefly discuss the procedures for trading and settlement on the stock exchanges in India.
4. What developments have taken place in the capital markets in India? What are their implications for financial managers?
5. Explain the role of merchant banking in capital markets. What is the status of merchant banking in India?
6. What are mutual funds? What are their characteristics? What are the advantages and limitations of mutual funds?
7. What are index funds and hedged funds? Explain their merits and demerits.

PRACTICAL PROJECT

Identify an emerging stock market from Asia. Find information about the stock market from the Internet. Compare the Indian stock market with this market.