CHAPTER 2

THE MARKET SCENARIO

The Emergent Foreign Exchange Market And The Capital Market In India.

Capital market and foreign exchange market are two important segments of the financial market of any country. In India the two markets have come through significant stages of reformation since 1991 in a phased manner. From being nearly closed and administered domestic markets, they are currently (2006) emerging as globally relevant and integrated markets. Financial market reforms in India have enabled a greater integration of various segments of the market, reducing arbitrage opportunities, achieving higher level of freedom and efficiency in market operation with changing roles of the regulators like SEBI and RBI and increasing efficacy of monetary policy in the economy. The growing integration between capital market and foreign exchange market segments is perceptible in the co-movement and convergence of financial prices, within and among various segments. In this chapter we shall look at the evolution and emergence of the two markets.
2.1 The Foreign Exchange Market

2.1.1 Evolution Of Foreign Exchange Market In India

The Indian foreign exchange market owes its origin to the important step that RBI took in 1978 allowing banks to undertake intra-day trading in foreign exchange. As a consequence, banks in turn had to maintain “square” or “near square” position at the close of business each day. The exchange rate of rupee was officially determined by the RBI in terms of a weighted basket of currencies. This continued until 1992 after which the foreign exchange market and its functioning were subject to gradual and selective decontrol step by step. The foreign exchange market in India is in the final stages of its evolutionary process as a developed one. It has evolved through a gradual transitory process both in terms of the choice of the exchange rate regime and the market structure.

2.1.2 Reforms in the Foreign Exchange Rate Regime

Over the past six decades since independence the foreign exchange regime has transited from a gold standardized par value system of the IMF during the 1950 to 1960 to a currency –peg during the 1970s and 1980s before eventually culminating into a market based exchange rate regime since 1993.

During the period 1975-1992, the exchange rate of rupee was officially determined by the RBI in terms of a weighted basket of currencies of
India’s major trading partners and there were significant restrictions on the current account transactions. The major shift in the system, i.e., from a pegged currency to a dynamic market-oriented system started evolving during the 1980s by which the exchange rate management acquired an important place in the framework of macroeconomic policies for the external sector. The exchange rate was actively used as a policy instrument to attain sustainable current account deficit (balance) ensuring price competitiveness of exports. However, by late eighties and early nineties, it was recognized that the rates were misaligned, and non-competitive thus weakening the external sector and widening the current account deficits, thereby leading to a foreign exchange crisis in the country. This necessitated the corrective steps leading to the economic reforms.

The major milestones since the initiation of the Economic reform process are identified as below:

i. The first corrective step: Devaluation of the rupee by RBI through two sharp downward adjustments in July 1991 (1st and 3rd) which was the first major step in the overall structural and stabilization programme to reform the external sector (Rangarajan 1991). This was with a view to placing it at an appropriate level in line with the inflation differential to maintain the competitiveness of exports.

ii. Introduction of the dual exchange rate system in March 1992, known as the Liberalised Exchange Rate Management System (LERMS). In this
system 40% of the current receipts were required to be surrendered to RBI at the official market rate. The LERMS acted as a system of transition from the pegged to a market augmented exchange rate.

iii. On 1\textsuperscript{st} March 1993, RBI unified the dual exchange rates and the exchange rate of rupee was made market determined. The objective of the foreign exchange management has been to ensure that the external value of the rupee is realistic and credible as evidenced by a sustainable current account deficit and a manageable foreign exchange situation (RBI 1993). Therefore the exchange rate policy was being guided by the need to reduce excess volatility, prevent the emergence of destabilizing speculative activities, help maintain adequate level of reserves and develop an orderly foreign exchange market.

iv. On 20\textsuperscript{th} August 1994 India accepted obligations under Article VIII of the Articles of Agreement of the International Monetary Fund and adopted the current account convertibility. While on the issue of Capital Account convertibility, India took a stance of calibrated continuous process involving careful monitoring of important macroeconomic and other finance sector variables.

v. In 1997, the Tarapore Committee on Capital Account Convertibility (CAC), constituted by the Reserve Bank, had indicated the preconditions for Capital Account Convertibility. The three crucial preconditions were fiscal
consolidation, a mandated inflation target and, strengthening of the financial system. The Tarapore Committee had also recommended changes in the legislative framework governing foreign exchange transactions.

vi. Accordingly, The Foreign Exchange Regulation Act (FERA) which formed the statutory basis for exchange control in India since 1973 was repealed and replaced by the new Foreign Exchange Management Act (FEMA) with effect from 1st June 2000. FEMA provided a de jure status to the shift in the policies with regard to the external sector reforms that began in 1990-91. Further and more importantly, this diluted the rigorous enforcement provisions which were the hallmark of the erstwhile legislation. The implementation of FEMA, has also been put into effect, a proactive approach in the development of a proper money market, government securities and foreign exchange markets as well.

vii. In April 2001, Clearing Corporation of India Ltd. (CCIL), a centralised clearing and settlement organisation was established to facilitate efficient management of the vast size of daily foreign exchange trading and settlement of debt. The CCIL acts as a central counterparty (CCP) to all transactions and guarantees settlement of trades executed through its rules and regulations eliminating counterparty risks in adherence to international best practices.

viii. It has also launched a Foreign Exchange Trading Platform to facilitate US Dollar/Rupee deals by banks in India. The platform offers both Order
Matching and Negotiation modes for dealing by offering Straight-Through Processing capabilities free of cost to its members, thereby helping to mitigate risks in the Indian financial markets. The National Payments Council and Board for Payment and Settlement Systems established within the RBI Act as overseers in this respect.

2.1.3 Changing role of RBI

The financial landscape of the country and the world at large has been changing and the calling for a dynamic role of the central bank. The delicate balancing of monetary and the foreign exchange policies has become much more complex than it has been in previous decades. RBI has to constantly engage itself in the balancing act between the imperatives of domestic economic, financial and monetary concerns and the surmounting international environment. The rapid changes that technological and financial innovations have brought to financial markets are also forces at work that have to be taken into account on a real time basis to ensure monetary and financial stability.

Over the one and a half decades of reforming the financial architecture of the country moving from a plan-based and regulated structure to a market-based system, the RBI’s role has also undergone significant changes. Though the central bank continues to have regulatory and developmental roles, the nature of such role has changed. As a regulator of financial markets, the primary concern of the central bank is financial stability and maintenance of
orderly conditions in the markets. RBI has been undertaking a continuous rebalancing of the priority between growth and price stability, sequenced into the process of deregulation of interest rates, and the progressive liberalisation of the exchange rate regime, including the institution of a market oriented exchange rate policy. Towards this end, it strives to create a congenial regulatory environment to support orderly market development by putting in place appropriate systems, procedures, standards and codes, risk management systems and accounting standards on par with global standards.

In the aftermath of a balance of payments crisis in 1991, stabilization was undertaken simultaneously with structural reforms over wide areas of the Indian economy. This dramatic change in context, fundamentally altered the manner in which a policy began to be formulated. Faced with the reality of the multiple goals, price stability received greater emphasis

- Thus the overall objective has had to be approached in a flexible and time variant manner with a continuous rebalancing of priority between growth and price stability, depending on the underlying macroeconomic and financial conditions.

- In the early 1990s to a brief period it was of broad monetary policy rules or ‘monetary targeting with feedback’. From the second half of the 1990s, the Reserve Bank of India (RBI) switched to a multiple indicator approach in which high frequency and low frequency indicators are tracked and the information used to draw policy perspectives.
• In 1994 interest rate deregulation was initiated, making a carefully calibrated transition from an administered interest rate regime to one of market determined interest rates over a period of time, while minimizing disruption and preserving financial stability. This approach also provided market participants adequate time to adjust to the new regime.

• The exchange rate policy in recent years has been guided by the broad principles of careful monitoring and management of exchange rates with flexibility, without a fixed target or a pre-announced target or a band, while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way. In this situation, the Reserve Bank of India indulges in making sales and purchases of foreign currency in order to even-out lumpy demand and supply in the relatively thin foreign exchange market. However, such intervention is not governed by a predetermined target or band around the exchange.

• The exchange rate policy as of now is sub-serving the monetary policy. Global developments are expected to have an increasing role in determining the conduct of monetary and exchange rate policies in India. In an environment of global convergence, retaining independence of monetary policy may become increasingly difficult, calling for hard choices in terms of goals and instruments enabling the market to smoothen jerky movements.

Going forward, there will be a continuous need to adapt the strategy of liquidity management as well as exchange rate management for effective
monetary management and short-term interest rate smoothening. This issue becomes even more relevant under a freer regime of capital flows. Global developments are expected to have an increasing role in determining the conduct of monetary and exchange rate policies in our countries.

Of late, the Reserve Bank has delegated exchange control procedures to banks and authorised dealers to such an extent that there is hardly any need to approach the Reserve Bank for any approval. The impact of these reforms are being reflected in the vibrancy in activity in various segments of the foreign exchange market with substantive increase in the daily turnover.

2.1.4 Market Structure and Design

The foreign exchange market in India is made up of Authorised Dealers (generally banks), some intermediaries with limited authorisation and end users viz., individuals, corporate, institutional investors and the regulator viz. Reserve Bank of India. Market making banks (generally foreign banks and new private sector banks) account for a significant percentage of the overall turnover. Authorised Dealers (ADs) are the leading agencies in the transmission of the liberalisation measures in the context of foreign exchange market as well as widening and deepening of such markets.

November 1994 became an important landmark in the design of foreign exchange market in India. RBI introduced some measures based on the recommendations of the Sodhani committee. These had far reaching effects with respect to market development and liberalization.
Accordingly;

- Considerable powers were delegated to Authorised Dealers by RBI to release foreign exchange for a variety of purposes.

- Banks have been accorded significant initiative and freedom to operate in the market. They were allowed freedom to fix their trading limits, permitted to borrow and invest funds in the overseas markets up to specified limits, accorded freedom to determine interest rates on FCNR deposits within ceilings and allowed to use derivative products for asset-liability management purposes.

- There have been significant changes in the policy framework for non-resident Indian (NRI) deposits held by the Indian banking system, which constitute a major portion of external debt for India. The interest rate on the deposits were rationalized and linked to international benchmark LIBOR. Remittance abroad by Resident individuals was liberalised to USD 25,000 p.a.

- In order to make the remittances hassle free, remittance facility based on a declaration resident individuals were allowed in early 2004 to remit upto USD 25,000 per annum for any permitted purpose both under current and capital account or combination of both. Resident individuals were also permitted to acquire property overseas and open accounts with banks outside India.
• Foreign Institutional Investors (FIIs) registered with SEBI and Non-resident Indians became eligible to purchase shares and convertible debentures under the Portfolio Investment Scheme subject to certain limits.

• An Indian corporate were allowed to raise foreign currency resources abroad through the issue of American Depository Receipts (ADRs) or Global Depository Receipts (GDRs) subject to certain conditions. Two-way fungibility of ADRs/GDRs was operationalised to bring about alignment in the prices of Indian stocks in the domestic vis-à vis international markets.

• Corporate were given flexibility to book forward cover based on past turnover and allowed to use a variety of instruments like interest rates and currency swaps, caps/collars and forward rate agreements in the international foreign market.

Effective February 1, 2004 Indian companies are free to invest upto their net worth outside India without any ceiling, under the automatic route.

• To encourage Indian companies to access External Commercial Borrowings (ECB) for undertaking real investment activity in India and for overseas direct investment in JVs and Wholly Owned Subsidiaries (WOS). The maximum amount of ECB that can be accessed under the Automatic Route is enhanced to US$ 500 million (from US$ 50 million previously) per financial year. The thrust of the new policy is to encourage investment in the real sector including infrastructure, while restricting debt flows for purposes other than those adding to the country’s capital stock.
• A number of initiatives have been taken towards entailing convenience to end users both individual and the corporate in terms of, simplification of procedures, reduction in transaction costs, accessibility and transparency of the system under a liberalized system.

• A number of steps have also been taken to liberalise the capital account covering foreign direct investment, portfolio investment, outward investment including direct investment as well as depository receipt and convertible bonds, opening of Indian corporate offices abroad and the like.

• Additional instruments in the Foreign Exchange Market were also introduced

  o Rupee-foreign currency swap market for hedging longer term exposure has developed substantially in the last few years.

  o Additional hedging instruments, such as, foreign currency-rupee options have been introduced

  o Authorised dealers are permitted to use innovative products like cross currency options, interest rate and currency swaps, caps/collars and Forward Rate Agreements (FRAs) in the international foreign exchange market.
A key area of emphasis in the development of financial markets in India is the provision of the appropriate technological infrastructure for trading, clearing, payment and settlement.

Since the late 1990s, the establishment of a modern, robust payments and settlement system consistent with internationally best practices was one of the major objectives set by RBI with respect to the development of the foreign exchange market in India. A three-pronged strategy of consolidation, development and integration was being pursued in this regard. Consolidation revolves around strengthening the existing payment system by providing the latest levels of technology. The developmental dimensions include

- real time gross settlement,
- centralised funds management, securities settlement and structured financial messaging.

Other key elements in the technological content of market development are

- electronic clearing (introduced in 1994),
- electronic funds transfer (1996),
- quick funds transfers with centralized settlement in Mumbai (2003),
- Negotiated dealing system (NDS), screen based order matching system (2002) for electronic reporting of trades and online dissemination system and submission of bids for primary
issuance of government securities. Oversight over the payments and settlement system is vested in a National Payments Council, and Board for Payment and Settlement Systems established within the RBI.

- A centralized clearing mechanism through Clearing Corporation of India Ltd. (CCIL), promoted by banks, financial institutions and primary dealers for clearing and settlement of trades in foreign exchange, government securities and other debt instruments, commenced operations in April 2001. The CCIL acts as a central counterparty (CCP) to all transactions and guarantees settlement of trades executed through its rules and regulations eliminating counterparty risks in adherence to international best practices. Oversight over the payments and settlement system is vested in a National Payments Council, and Board for Payment and Settlement Systems established within the RBI.

- The Foreign Exchange Dealers Association of India (FEDAI) as a self-regulatory organisation formed by authorised dealers plays a constructive role in market development in India. The FEDAI is all set to enhance its catalytic role in market development over the years ahead.
The role of technology and technology enabled services in facilitating a globally integrated market for foreign currency transaction and swift movement of funds can not be overemphasized. Technology has really changed the way business is carried out and foreign exchange market appears to be a significant beneficiary. It has enabled enhancing the length and breadth of this seamless market permeating through its micro and macro structure.

2.1.6 Market Profile

Foreign exchange markets generally have some unique characteristics on account of their large trading volume, the extreme liquidity, large number of traders, geographical dispersion and seamless coverage, long trading hours (24 hrs) etc. It is an Over The Counter (OTC) market, there is no single unified foreign exchange market. The Indian Foreign Exchange Market is predominantly a transaction based one with the existence of underlying foreign exchange exposure generally being an essential ingredient. Similarly, regulations in most cases require end users to repatriate and surrender foreign exchange in the Indian foreign exchange market. All foreign exchange transactions of Government of India are routed through the market except for aid transactions.

These reforms are being reflected in vibrancy in activity in various segments of the foreign exchange market especially in terms of turnover and the level of foreign currency assets held.
There has been a large inflow of funds towards the country in recent years. This is reflected by the large accumulation of foreign exchange reserves. An analysis of the sources of reserve accretion indicates the buoyancy in services exports. The extent of liberalisation in this respect is indicated in the level of daily turnover in the Indian foreign exchange market. This has more than doubled compared to 2001 and even recorded a growth rate of 38% during the recent period (April 2005 to April 2006). There is growing importance of foreign exchange as an asset class and the facilitating market infrastructure with internet trading platforms also is a boon to the emerging market.
Some quick facts are cited below to give an idea of the business speed and market size.

Source: Chart drawn based on data from RBI Handbook on statistics on Indian economy

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2.1.7 Resurgent India

The reform measures in the foreign exchange market have resulted in significant deepening of the market in terms of both instruments and variety of players. From a state of financial repression\(^1\) in the early 1990s, India has traversed through the structural changes over the decade and half long reformation process into a state of comfort by 2006. It has emerged and has been, probated by the world at large as ‘a resilient economy’. The foreign exchange regime in India has transited from a gold standardized par value system of the IMF during the 1950s and the 1960s to a currency – peg during

\(^{1}\) McKinnon and Shaw
the 1970s and the 1980s before eventually culminating into a market based exchange rate regime since 1993.

The major shift in the system i.e. from a pegged currency to a dynamic market oriented one started during the 1980s by which time the exchange rate management acquired an important place in the framework of macroeconomic policies for the external sector. The exchange rate was an actively used policy instrument to attain sustainable current account deficit (balance) ensuring price competitiveness of exports. However by late eighties and early nineties, it was recognized that the rates were misaligned, and non competitive, thus weakening the external sector and widening the current account deficits thereby leading to a foreign exchange crisis in the country.

It is expected that the Reserve Bank will continue to adopt an approach characterized by gradualism in respect of future liberalization of foreign exchange markets. Still more, foreign exchange markets have to be further aligned and harmonised with the external sector reforms and development of financial markets as part of the overall reform. Therefore, an increasingly liberalising foreign exchange regulatory regime calibrated by appropriate prudential norms for foreign currency transactions will be better than a pure free play which will be an essential ingredient of the continuing integration process.
2.2 The Indian Capital Market

The Indian capital market like any other capital market is a combination of the debt market and the equity market and comprises of primary and secondary market. For the purpose of the study the focus is placed on the equity market as we refer to the capital market.

2.2.1 Moving towards a globally Integrated market

Through a gradual but continuous process of deregulation and the increasing integration of the financial markets to the global economy, Indian equity market is evolving as a mature and near perfect one in its architecture. The relative price stability along with reduced medium and long term inflation expectations; the installation of an institutional framework and policy reform promoting relatively efficient price discovery, demutualised/corporatised exchanges providing on-line trading system and settlement in two days, along with investor caring regulatory system and reporting and disclosure practices approaching international best practice, have given rise to a capital market of global recognition making it a market of preference by investors across the globe.

As a result of the significant reforms in the capital market, it has become a market of international parlance providing a trading platform which is automatic, electronic, anonymous, order-driven, nation-wide and
screen-based. Shouting and gesticulations have yielded place to punching and clicking. Speed and efficiency are the hallmark of the current system. Across the system, multitudes of market participants trade with one another anonymously and simultaneously. On any trading day, more than 10,000 terminals come alive, in 400 towns and cities and information is flashed on real time basis. Equal opportunity is provided for all concerned to access the information. Transparency is ensured in respect of dissemination of information, price and quantum of the order.

2.2.2 Brief Profile in Retrospect

A quick flashback of the history of the Indian equity market would reveal that its genesis can be traced back to 1887. As of today (2006) India has about 10,000 listed companies (about 2% of all registered companies) and 23 registered stock exchanges in various cities with the Stock Exchange, Mumbai (BSE) and the National Stock Exchange (NSE) being the two main stock exchanges. The players include brokers, investors - individuals and institutions both domestic and foreign, mutual funds and other intermediaries with varying significance of roles. Over the past two decades the equity market has grown exponentially as measured in terms of the market capitalization, number of players, resources raised trading volumes etc.
2.2.3 The Transformation of Indian Equity Capital Market Through the Reform Period (1991-2006).

2.2.3.1 Important Policy initiatives and regulatory framework governing the Indian equity market.

With the objective of improving the market efficiency, enhancing transparency, preventing unfair trade and bringing Indian securities markets up to international standards, a package of reforms\(^2\) were introduced in the wake of the liberalization policy of 1991. These reforms consisted of measures to liberalise, regulate and develop the securities market.

i. **Enactment of Securities and Exchange Board (SEBI) Act.** Capital Issues (Control) Act of 1947 was repealed in 1992 and the SEBI (Securities and Exchange Board) Act 1992 was enacted. Enactment of the SEBI Act was the first attempt towards integrated regulation of the securities market. With this

\(^2\) Indian Securities Market A Review –Volume 5, 2002
the government’s control over pricing of capital issues, fixing premium etc., ceased and the market was allowed to allocate resources to competing users.

ii. **Establishment of SEBI.** The Securities and Exchange Board of India (SEBI) was created and designated as the regulator for capital markets. The main responsibilities assigned to SEBI were

- protecting the interests of investors in securities
- promoting the development of the securities market, and
- regulating the securities markets.

SEBI was given concurrent/delegated powers for various provisions under the Companies Act (CA) 1956 and the SC(R) (Securities Contract Regulation) Act relating to the issuance of capital, transfer of securities along with the regulatory jurisdiction over the corporate and all the intermediaries and persons associated with securities market.

iii. **DIP Guidelines (Disclosure and Investor Protection Guidelines),** issued by SEBI bring the substantive body of regulations to ensure that all concerned observe high standards of integrity and fair dealing, fuller disclosure of relevant information to investor and compliance with the requirements with due diligence to ensure investors’ protection.

iv. **Market determined allocation of resources and investor protection.** While in the interest of investors, SEBI issued Disclosure and Investor Protection (DIP) guidelines, Department of Economic Affairs(DEA), Department of Company Affairs (DCA) and SEBI have set up investor
grievance cells and the Exchanges have investor protection funds, settlement guarantee funds, arbitration committees etc for redressal of investor grievance, which may arise out of non-settlement of obligations by a trading member for trades executed on the exchange. DCA has also set up an investor education and protection fund for the promotion of investors’ awareness and protection of interest of investors.

v. **Demutualization and establishment of NSE.** A demutualized Exchange for Equity trading at NSE and screen based trading commenced in November 1994. The benefits of demutualized Exchange with the improvement in the securities market led to a regime-shift towards transparency, anonymity, competition in the brokerage industry, operational efficiency etc. A few exchanges have already initiated demutualization process. Government has offered a variety of tax incentives to facilitate corporatization and demutualization of stock exchanges.

vi. **Screen Based Trading** The outcry system used for floor trading at the stock exchanges was replaced by the information technology enabled screen based order matching system in order to provide efficiency, liquidity and transparency. In 1994 NSE introduced a nation-wide on-line fully-automated Screen Based Trading System (SBTS) where a member can punch into the computer quantities of securities and the prices at which he likes to transact and the transaction is executed as soon as it finds a matching sale or buy order from a counter party. The BSE responded rapidly by moving to a similar technology (BOLT) in March 1995. This was a great step towards
modernizing the Indian market as any other developed market of the world. All Exchanges in India switched from floor trading to anonymous electronic trading. Disappearance of manual trading has made substantive changes in geographical coverage of the exchanges which led to enhanced trading volumes.

vii. **Trading Cycle and settlement** The trading cycle varied from fourteen days to thirty days under the manual system accompanied by settlement time of another fortnight to the minimum. Many parallel deferral products were subsequently banned and the market has moved close to spot/cash market. On 2nd July 2001, all exchanges moved to rolling settlement for the largest stocks in the country and gradually moved T+ 5(December 2001) and to T+3 (April2002) and T+2( 2003 onwards)

viii. **Derivatives** To assist market participants to manage risks better through hedging, speculation and arbitrage, SC(R)A was amended in 1995 to lift the ban on options in securities. The SC(R)A was amended further in December 1999 to expand the definition of securities to include derivatives so that the whole regulatory framework governing trading of securities could apply to trading of derivatives also. A three-decade old ban on forward trading, better known as *BADLA*, which had lost its relevance and was hindering introduction of derivatives trading, was withdrawn. Derivative trading took off in June 2000 on two exchanges.
ix. **Dematerialization.** To alleviate the problems related to physical delivery of securities, the Depositories Act, 1996 was passed to provide for the establishment of depositories (NSDL and CDSL) in securities with the objective of ensuring free transferability of securities with speed, accuracy and security by (a) making securities of public limited companies freely transferable subject to certain exceptions; (b) dematerializing the securities in the depository mode; and (c) providing maintenance of ownership records in a book entry form. The stamp duty on transfer of dematerialized securities was subsequently waived.

x. **Risk containment at the clearing corporation.** To effectively address the issue of assessing the credit risk of the counter-party and to guarantee the final settlement of the transaction, NSE introduced the concept of novation, and set up the first clearing corporation, viz. National Securities Clearing Corporation Ltd (NSCCL), which commenced operations in April 1996. Counterparty risk is guaranteed through a fine tuned risk management system and an innovative method of on-line position monitoring and automatic disablement.

xi. **Risk Management.** To prevent market failures and protect investors, the regulator/exchanges have developed a comprehensive risk management system, which is constantly monitored and upgraded by the Exchanges and regulators. It encompasses capital adequacy of members, net-worth criteria, adequate margin requirements (comprising of initial margin, daily market to market margin, and variation margin), limits on exposure and turnover,
indemnity insurance, on-line position monitoring and automatic disablement on crossing the limits, etc. They also administer an efficient market surveillance system to curb excessive volatility and detect and prevent price manipulations. Exchanges have set up trade/settlement guarantee funds for meeting shortages arising out of non-fulfillment/partial fulfillment of funds obligations by the members in a settlement.

xii. Price Discovery through Book Building. In 1999 the book building process was recommended and instituted as a price discovery mechanism. For all public issues since December 2001 a book building mechanism is adopted for determining the price.

xiii. Transaction tax, Brokerage and Transaction Costs. Transaction tax was instituted in October 2004. Brokerage rates have been liberalised and overall transaction costs rationalized.

xiv. Listing, Reporting and Disclosure Requirements. SEBI has tightened the listing requirements and had brought accountability and disclosure norms matching the top grades. Clause 49 of Listing Agreement does ensure that the corporate governance and corporate performance do get reflected and reported. Indian accounting standards are already principle-based and they have been aligned with international standards almost in all aspects, barring one or two. Indian disclosure requirements, both initial and continuing, are on par with global practices.

xv. SEBI is in the process of developing a database about market participants
and investors, called the MAPIN database, to give a Unique Identification Number (UIN) to individuals and entities participating in the capital market. Once the database is built, SEBI will mandate that transactions of concerned participants (primary market, secondary market, etc.) are identified with the UIN.

2.2.3.2 Significant episodes in the Indian Equity market that went to shake and shape its profile.

The equity market has undergone dramatic development as it traversed through the economic reforms period. Because of the reforms, the markets have become transparent and accessible uniformly to everyone in the country, and has facilitated growth and reach to the smallest of the investors. The decision in 1992 to open the Indian Capital markets to institutional investors from abroad and the establishment of the National Stock Exchange have turned out to be two major landmarks in the evolution of Indian equity market.

Over the second half of the nineties, from 1994 to 1996, the markets did get enormous changes to the technology of trading, but the basic structure of the market was unchanged.

Pursuant to the government’s decision to allow Indian companies to tap foreign markets for capital, ADRs and GDRs came into being. In the first half of the nineties there was preference for European markets as they were more lenient on financial disclosure norms. The first such issue was in May
1992 through a GDR by the Reliance Industries (RIL) for $150 million, followed by several Indian companies raising a total of $6.5 billion. In 1994 a record of $3 billion was raised through GDRs after which fund-raising through this route slowed down. And 1997-1998 was particularly low because of the Asian crisis followed by the Pokhran blasts.

In 1999 the new economy (technology based) companies started trading on NASDAQ in the form of ADRS. Flagged off by Infosys on 11th March 1999, a series of Indian companies VSNL, ICICI, GAIL, Satyam Infoway etc joined the race by 2000 to enter the foreign equity market pavilion. The equity prices on NASDAQ started sending signals which could affect the equity prices in the Indian market. The ADRs and GDRs could not sustain their listing price for long.

Bubbles and bursts continued to be a perennial feature of the securities markets, world over. There were many incidents of market misconduct and the equity market went through series of scams and considerable volatility before reaching the levels it has attained in recent times. The CRB mutual fund, a fund licensed and regulated by SEBI, absconded with investors' money in 1997. Harshad Mehta, who had manipulated the market in 1992, was able to manipulate stock prices again in 1998, with the help of the management of the companies and the Bombay Stock Exchange. US64 of UTI reported a large drop in its NAV in 1998, for which the Ministry of Finance put up roughly Rs.1800 crores of public money. Even as in 2001 the so called Reformed and secure equity market was ripped by the Ketan Parekh scam,
making the market lose its value by 15% in a week.

The introduction of screen based trading (SBT) which transferred the trading platform from the exchanges’ floor to the brokers/investors’ terminals, the Depositories Act, 1996 and the subsequent dematerialisation of securities made significant dent in the way securities markets functioned. These also gave rise to unprecedented growth in the number of trades that took place on the exchanges from all over the country and the number of depository accounts that were opened and a fall in the brokerage fees. The introduction of on-line and dematerialized trading has reached the equity market to the otherwise unreached. Millions of people who were once spectators on the side lines of the stock market now became participants. Currently 99% of market capitalization is dematerialized and 99.9% of trades are settled by delivery. Transaction costs in India (fee, impact cost, clearing, settlement, etc.) are near the global best by now. A comparative study of transaction cost among seven countries places India in the third position after the USA and Hong Kong.

Effective September 1992, Foreign Institutional Investors (FIIs) have been permitted to invest in the Indian equity market. FIIs are now an integral part of the Indian equity market and their participation has been steadily increasing since 1993. They are able to invest in huge amounts and their tremendous money power is significant enough to move the market. The ceiling on investment which was 24-30% was raised to 40% and 49%, which is being subject to further revision. By 2000 there were about 550 FIIs operating in the Indian market which was far in excess of the
domestic institutional investors. Indian capital market has also become a preferred destination for global investors. About 40% of the investment to emerging markets is now.

Additionally consequent to economic liberalization the direct investment in India by foreign investors has also been substantively increasing over the years. The growing interest of global institutional investors is testified by the fact that from an initial level of about Rs 4,770 crores in 1994-95 it has grown approximately ten fold to Rs 48,650 crores in 2005-2006.

The evidences about the trades in the market have clearly shown that these changes brought about were on the right track. The volumes in the market are growing slowly and steadily on the equity market. Trading volumes have increased by leaps and bounds, from Rs 17 crores (per day) to above Rs 6,200 crores by 2005. In April 2006 the number of trades was a record high of 3.8 million on a single day. Liquidity has also substantially improved with above 91% of the companies trading for more than 100 days a year. In terms of Market capitalization it has surpassed the GDP thus entering the big league of Securities Exchanges of the world. There is an increasing level of participation of domestic investors whose investments account for 0.2 per cent of GDP from domestic savings. Going by the number of NSDL accounts and the average size of the trade the Indian equity market is featuring as a predominantly retail market. It has also reported the highest delivery ratio among the major exchanges, the lowest transaction costs, a record of the

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3 (NSE Fact Book 2006)
lowest defaults and offer the highest compensation for investor in cases of valid and approved claims.

India is the first country in the world that set up de-mutualised stock exchanges, the first to use satellite communication technology for securities transactions, the first major securities market which has implemented T+2 rolling settlement, the first securities market to start real time on line position monitoring of brokers etc. She is also the first to introduce concepts such as free float indexing, obtaining ISO certification for surveillance, establish huge infrastructure to enhance knowledge and know-how, put in place a trading platform that works on a sub-second response time and with a capacity of four million trades a day. Thus the march of Indian equity markets towards becoming the best and safest in the world for investors continues.

The fore-going sections (2.1 and 2.2) have detailed the market scenario of the two significant segments of the Indian financial market viz. The Foreign Exchange Market and the Equity (capital) Market in India. Both these segments of the market have undergone tremendous changes during the past one and a half decades. The policy initiatives though independently taken and regulated by two distinct regulators, both markets have come of age almost simultaneously and recognized by world economies as significant players in the eyes of domestic as well as global investors. It is now felt important to review how the prices – the most important indicator of any market- have behaved in the two segments.
2.3 The Behaviour of the Rupee Against the Dollar (1991: 2006)

The movement of the Rupee against the dollar during the period July 1991 to June 2006 is depicted in chart 2.3.1 below.

![Exchange Rate Chart](chart2.3.1)

Source: Drawn based on daily exchange rate data compiled from RBI publications

The rupee was subjected to, two successive devaluation as the primary step towards correcting the balance of payment crisis, which the country faced during 1990 – 1991. As a result from a pre-reform level of around Rs 19 to a US $ it came down to Rs 24.5 to a US $. The rupee remained a controlled currency with RBI changing its value in line with a basket of currencies. Dollar- Rupee parity was in the range of 24.47 to 25.89 during the rest of 1991 and 1992. In January 1993 the bi-lateral rate became
Rs.30.88 further crawling down to 32.8 in February 1993 under a liberalized dual exchange rate system (LERMS). Soon with the unification of the exchange rate in March 1993 the exchange rate of rupee was made market determined. The rate fluctuated range- bound around 31.37 -31.96 until August 1995 reflecting a prolonged phase of more or less constant rate. During the period between September 95 to February 96 the rate was between 31.3 to 38.55 reflective of the market expectations and further depreciation was halted by RBI intervention ensuring stability of the market until January 1996. In the month of February1996 another bout of uncertainty led the rupee shoot to 37.95 per US Dollar.

With the timely intervention by RBI and the monetary policy put in place, normalcy was restored and the exchange rate moved in a narrow range of Rupees 35-35.90 per dollar upto June 1996. The Reserve Bank of India intervened in the market to keep the rupee from appreciating against the dollar, but was not able to check the rupee's rise against other currencies. From July 97 onwards the rupee was subject to the maladies of both internal and external happenings like the Asian crisis, the Russian crisis, increase in crude oil prices, the nuclear tests etc which took the rupee on a steady downward slide and has been trading in the range of 35.8 to 42 per dollar by 1999. The gradual depreciation continued as the economy was undergoing a recession until after 2002. From 2002-2003 the hardening of the US interest rates mainly due to the increase in the oil prices led to strengthening of the US dollars, and the Rupee –Dollar parity was affected. The exchange rates appear
to be more market determined than before. With the backing of a fundamentally strong economy on a new growth trajectory the Rupee-dollar parity is expected to be more resilient and less subject to severe volatility.

2.4 The Roller Coaster Ride of the Sensex and Its Scaling New Heights

On the equity market side the prices as measured by the so called market barometer -SENSEX reflected a humpy ride of booms and bursts up to 2001 and started scaling newer heights thereafter. The jerky journey of the SENSEX is depicted in the chart below.

Source: Prepared based on the data on SENSEX collected from BSE’s published sources.
The levels scaled by SENSEX at various time points in its journey during 1991-2006 is tracked along the following Timeline of the Indian stock market history.

- On July 25, 1990 the SENSEX touched the magical four-digit figure for the first time and closed at 1,001 in the wake of a good monsoon and excellent corporate results.

- On January 15, 1992 the SENSEX crossed the 2,000 mark and closed at 2,020 followed by the liberal economic policy initiatives undertaken by the then finance minister and current Prime Minister Dr. Manmohan Singh.

- On February 29, 1992 the SENSEX surged past the 3,000 mark in the wake of the market-friendly budget.

- On March 30, 1992 SENSEX crossed the 4,000 mark and closed at 4,091 on the expectations of a liberal export-import policy. It was during this time that the Harshad Mehta scam hit the markets and SENSEX witnessed unabated selling and rolled it back to 3000+ levels.

- On October 8, 1999, the SENSEX crossed the 5,000 mark as the BJP-led coalition won the majority in the 13th Lok Sabha election.

- On February 11, 2000 the Information technology boom helped the SENSEX to cross the 6,000 mark and hit an all-time high of 6,006.

- On June 21, 2005 the market reacted positively to the news of the settlement between the Ambani brothers which boosted investor sentiments and the scrips of RIL, Reliance Energy, Reliance Capital and IPCL made
huge gains which helped the SENSEX to cross 7000 points for the first time.

- On September 8, 2005, the SENSEX crossed the 8000 level following brisk buying by foreign and domestic funds.

- On November 28, 2005, the SENSEX crossed touched 9,000.32 points during backed by the frantic buying spree by FIIs and well-supported by local operators as well as retail investors.

- On February 6, 2006, the SENSEX crossed 10,000 points during mid-session and finally closed above the 10,000 mark on February 7, 2006.

- On March 21, 2006, the SENSEX touched a lifetime peak of 11,001 points during mid-session at the BSE for the first time. However, it was on March 27, 2006, that the SENSEX first closed at over 11,000 points.

- On April 20, 2006, it touched 12004 points during mid-session at the BSE for the first time. Later, on May 22, 2006, the SENSEX swung negatively a wild 1,100 points during intra-day, leading to suspension of trading for the first time since May 17, 2004. It soon recovered enough and closed 400 points down at the 10,400 levels. This was the largest ever intra-day crash in the history of the SENSEX.
2.3.3 The Moral of the Story

The independent tales of the two variables - Exchange Rate and SENSEX – being so, the study is aimed at discovering the possibility, if any, of linking these two stories?

![SENSEX AND EXCHANGE RATE (1991-2006)](chart)

Source: Based on the data on SENSEX collected from BSE’s published sources and the dollar per rupee derived from the daily exchange rates from RBI publications.

In the context of the emerging new design of the financial architecture of the country, both capital market and foreign exchange market are undergoing radical changes. It is believed that there is great degree of inter-linkages between the various sub-segments while becoming globally integrated markets. What do the market indicators like SENSEX and Exchange Rate reflect? Are there signs of convergence as the markets are progressively liberalizing? Knowing the nature and effects of the relationship between the market indicators have long challenged academics and researchers of equity market and portfolio/ fund managers across developed and emerging markets. The search for the same continues in this study as well.