Chapter-7

Summary and Conclusions

The present study has made an attempt to study the relationship between stock market development and the pattern of resource mobilisation by Indian corporate sector over the period 1991-2012. The present chapter summarises the important findings and conclusions. These conclusions and suggestions should provide relevant information to the concerned parties.

An efficient capital market is an essential prerequisite for the economic development of a country. A capital market is a network of financial institutions that brings together the suppliers and users of funds. It provides a platform for the corporate houses to mobilize the funds and thereby plays a dominant role in the capital formation. A vibrant capital market, where the financial assets are efficiently priced based on risk and return attributes provide correct signals to the economy for investment decisions in the real sector.

At the time of independence in 1947, India inherited one of the world’s poorest economies where the manufacturing sector accounted for only one tenth of the national product. India emphasized a socialist pattern featured by culture of licensing, protectionism, nationalization of banks and all kinds of state control. The government had a complete dominance on the functioning of the financial markets. The pricing and quantity of new public offerings controlled by the Controller of Capital Issues, interest rates administered by the Reserve Bank of India (RBI), entry barriers throughout the financial sector and parking of insurance funds and pension funds to Government bonds and bank deposits were some of the noticeable features of the financial sector. Thus, serious flaws existed in the structure of capital market in India.
Prior to 1991 reforms, the largest Indian stock exchange was the then members owned Bombay Stock Exchange, which traded only for two hours with an open outcry system. The settlement process was physical delivery based posing significant risk to the participants in the stock market. In 1991 the only institutional investor with significant participation in the market was the government-owned Unit Trust of India (UTI) with total assets of Rs.357,370 million (nearly US$ 14.5 billion) representing over 90 percent of total mutual fund assets in India. Harshad Mehta scam, the first of the several stock market scandals stimulated the urgency of a strong regulator and the significant market reforms.

International and Indian capital market has witnessed a plethora of significant changes since 1991. India, facing a crisis in the foreign currency reserves, started the process of liberalization of the economy. The Indian economy was opened up for foreign capital flows, realizing that the public sector resources were inadequate to meet India’s developmental needs. The last two decades, have witnessed substantial regulatory, structural, institutional and operational changes in the securities market of India. These changes have been brought forth with the objective of improving market efficiency, enhancing transparency and bringing the Indian market up to the international standards.

The repeal of The Capital Issues (Control) Act, creation of a strong independent market regulator, Securities Exchange Board of India (SEBI), establishment of electronic exchange National Stock Exchange, enactment of The Depositories Act, 1996 which ensured free transferability of securities with greater speed and higher degree of accuracy are some of the structural reforms initiated by the government. In 1996, the NSE established the National Securities Clearing Corporation Limited (NSCC) as a wholly owned subsidiary in an effort to manage the counter-party risk at the time of settlement. Another milestone in the history of Indian Capital Markets was the
introduction of derivatives trading which has propelled the market to new levels of sophistication and maturity.

With the announcement of these reform measures, the capital market achieved a new level of maturity. It is quite obvious to assume that these reforms must have attracted the corporate houses to the capital market for their fund requirements. This prompted us to study the changing pattern of resource mobilisation by the Indian corporate sector as a result of stock market reforms. The following section revisits the objectives and the research methodology of the study followed by the major findings.

7.1 Objectives Revisited

The basic objective of the study is to examine the relationship between stock market reforms and the pattern of resource mobilisation of Indian corporate sector. Under the guideline of this primary objective, the specific objectives set in the study are:

1. To assess stock market growth in terms of market size, liquidity and volatility.
2. To evaluate the pattern of resource mobilisation in Indian corporate sector.
3. To analyse the relationship between stock market reforms and corporate financing pattern in India.
4. To examine impact of corporate characteristics such as industry, sector, size and age on the aforesaid relationship.

Hypotheses

As regards the first objective of the study the following hypotheses have been formulated:

1. To examine the first objective, the study will test the following null hypotheses:
   1.1 Ho: The market capitalisation as a percentage of GDP has not increased over the period of the study.
1.2 Ho: The liquidity of Indian stock market as measured by value traded ratio and turnover ratio has not increased.

1.3 Ho: The volatility in Indian stock market has not increased over the study period.

2. To examine the second objective, the study will test the following null hypotheses:

2.1 Ho: The External finance is not more important as a source of finance for Indian firms.

2.2 Ho: The proportion of capital market has not declined as a source of finance over the study period.

2.3 Ho: The importance of equity finance has not declined over the study period.

2.4 Ho: The proportion of external debt in total finance has not declined over the study period.

2.5 Ho: An inverse relationship does not exist between contribution of external debt and external equity in the financing requirements of the Indian corporate sector.

3. To examine the third objective, the study will test the following null hypothesis:

Ho: There is no relationship between the stock market development and the financing pattern of the Indian corporate sector.

4. To examine the fourth objective, the study will test the following null hypotheses:

4.1 Ho: Financing pattern of companies across industries and sectors do not vary significantly.

4.2 Ho: Equity financing is not more important for large companies than small companies.

4.3 Ho: Debt financing is not more important for new companies than old companies.
7.2 Research Methodology Revisited

The data for the study is obtained from secondary sources from data base maintained by Centre for Monitoring Indian Economy (Prowess). A sample of 208 companies from BSE 500 index listed on Indian stock exchanges is considered. To avoid factors such as temporal stability and business cycle influencing our study, a longer time frame of study of 22 years period i.e.1990-91 to 2011-12 has been used. Economy data has been collected from the annual reports of SEBI and RBI and their websites.

Three measures of stock market development viz. Market size, liquidity and volatility have been considered. As a measure of stock market size, Market Capitalization Ratio (MCR) is used. For market liquidity, two measures are used: (1) Value traded ratio, and (2) Turnover ratio. Volatility of an asset price is standard deviation of the asset return over a particular period of time.

The financial ratios, a widely accepted tool of financial analysis, have been relied for the purpose of the study to analyse the pattern of financial structure of sample firms in post liberalisation scenario. For this purpose, following ratios are used.

Ratio 1 ($R_1$) = External Finance as a percentage of Total Finance.
Ratio 2 ($R_2$) = Funds from Capital Market as a percentage of Total Finance.
Ratio 3 ($R_3$) = Equity Finance as a percentage of Total Finance.
Ratio 4 ($R_4$) = External debt as a percentage of Total Finance.
Ratio 5 ($R_5$) = External debt as a percentage of External Finance.

To study the trend of financial structure over a period of time, the mean and median values along with standard deviation are computed for each year for each company. Relationship between stock market development and corporate resource mobilisation pattern of Indian companies has been established using Multiple Correlation Analysis, Multiple Regression Analysis and appropriate statistical tests (t-test, F-test etc.) for hypothesis testing. The post hoc test Levene Stataistics Test (LST) is also applied to find the relationship among more than two variables.
7.3 Major Findings

1. **Stock Market Size**

   The MCR increased from 13.59% in the year 1991 to 37.18% in 1997 mainly due to reforms initiated by the government. *The Capital Issues (Control) Act was repealed* in May 1992 which improved the retail participation. Markets further deepened when in September, 1992 the FIIs were allowed to invest in the markets. During 1998-2007, when second set of reforms were on, the average market capitalization ratio remained at around 47%. Although the ratio was quite high in the last three years of this period but averaged lower due to sluggishness during the period of 2001-2003. Post Global financial Crisis, the ratio was quite high showing the active participation and interest of the FII. The Market Capitalisation Ratio averaged at 83.5% for this period of 2008-12. The mean value of the ratio during the study period is 51.72%. The ratio has been improving over the different sub periods. This shows that the size of Indian stock market increased continuously over the period under study.

2. **Stock Market Liquidity**

   The VTR improved from 6.99% (very low which shows very little trading in the market as compared to economy size) in the year 1991 to 9.96% in the year 1997 which shows the positive impact of reforms on the investors’ participation in the market. During the period 1998-2007, the ratio improved to 25.43% despite the substantial increase in the turnover and GDP in absolute terms. During 2000-2001 there were maximum activities in the market and the value traded ratio was 52.57%. Post Global financial Crisis the ratio maintained at around 20% after peaking out at 33% in the year 2008. The reason behind this decline may be the uncertainty in the global financial environment. The FIIs’ have shifted their focus from delivery based trading to derivatives trading which allows them to apply more hedging techniques and a quick entry and exit options. One may notice that the delivery based turnover has reduced in absolute terms in this particular year. The turnover ratio also
declined in the different sub periods. Analysis of the value traded ratio and turnover ratio over the entire period of study reveals that the liquidity over the years has improved but the Indian stock market is less liquid in relation to the growth of the economy than growth of the market size.

3. *Stock Market Volatility*

During the study period, the volatility of the Indian stock market has not shown any significant pattern on a year-to-year basis although it has decreased over the three sub periods. Analysis also shows that stock market cycles in India have not intensified after stock market reforms. A generalized reduction in instability in the post reform period in India has been observed.

The Correlation analysis was done to see whether there is similarity in movement for all the selected indicators over the period. It is found that that size and liquidity of the market are positively related but degree of relationship is very poor. The size of the market and its volatility are negatively correlated to some extent but not significantly.

Thus the stock market (primary and secondary) has grown over time and has increased rapidly in terms of size and liquidity. Volatility of the market has remained almost same with a minor declining trend.

4. *Pattern of Resource Mobilisation by Indian Corporate Sector-Overall*

(a) External finance has remained the dominant source of financing for all the sample firms for all the years. Though there is a decline in its share since 1991 over the different sub periods, on an average basis, external finance accounted for more than 60% of a firm’s total financing for all the samples. Thus Indian corporate sector still relies overwhelmingly on external sources rather than retained profits to finance its assets.

Thus the null hypothesis that external finance is not an important source of finance for the Indian firms has been rejected.
(b) There has been a spurt in the percentage of funds raised through capital markets during the period 1991-95 may be due to abolition of Controller of Capital Issues and the freedom of securities pricing given to the corporates. The capital market has not performed too well as a source of finance in the subsequent time periods and its share declined from 21% in 1991 to 14% in the year 2012.

The proportion of capital market in the total finance increased during the first sub period but the importance of the capital market has declined as a source of finance during the second and third sub periods. It signifies that the contribution of remaining part of the external source i.e. Banks, financial institutions and current liabilities are increasing in recent years.

Thus the null hypothesis is rejected that the importance of capital market is not declining over the study period.

(c) During the study period, equity related instruments contribute for 10% and above of total finance for all the sample firms. The result of Equity market contribution in total finance ratio shows that the contribution of external equity has consistently declined after 1995. Thus, for the first sub period, there is no evidence to reject null hypothesis that the contribution of equity market is not declining in first phase of reforms. However, for the second and third sub-period, the null hypothesis that the contribution of equity market is not declining is rejected.

(d) The external debt to total finance ratio shows a declining trend during the study period. From 37% in 1991, it decreased to 21.5% in 2012. Debt related instruments and borrowings remained an important source initially, but since the liberalization process started in 1991, its importance decreased. The results of t-test show that as value of p at 5% significance level is less than .05, the null hypothesis that the proportion of external debt in total finance is not declining is rejected for all the three sub-periods.
(e) The share of external debt in external finance declined from 47.37% to 41.25% and 37.57% over the three sub periods. Since the proportion of equity related instruments have also declined, it can be concluded that proportion of current liabilities and provisions are increasing. Both equity market contribution and external debt declined during study period and there is positive relation between the two. The results of paired sample t-test also show that for all the sub-periods the proportion of external debt in external finance has decreased. This decrease is statistically significant even at 1% level of significance. Therefore, there is no sufficient evidence to reject the null hypothesis that the proportion of external debt and equity finance is not inversely related.

5. Pattern of Resource Mobilisation by Indian Corporate Sector-Industry Wise

(a) The proportion of external finance in total finance has been quite significant for all the industries in India.

(b) The funds raised from the Capital market increased during early 1990s and peaked during 1994-95. The contribution of Capital market has declined after 1995. However, for few industry groups like Food and Agro based products construction material industry, Machinery Industry, the declining trend has reversed in 1997-98 after the initiation of second set of reforms. However, in the post global financial crisis period, the contribution of capital market as a source of finance has substantially reduced for all the industries except for food and agro based products industry.

(c) The contribution of Equity market is very much similar to the trend of Capital market. This ratio has miserably reduced in the post financial crisis period after 2007, inferring that the uncertain economic environment restricted the companies from any activity in the capital market. The
significant differences exist industry wise in the level of financing through Equity and Debt.

(d) The main source of finance for all the industries has been Debt market, Banks and Financial Institutions. This segment contributed almost 35% of their finance requirement but this ratio has also been in the declining trend.

6. Financing Pattern of Indian Corporate Sector-Sector Wise

Among the three major sectors of the economy, the contribution of external finance in the total financing is highest in case of non-manufacturing (non-financial) sector which is 64.72%, followed by manufacturing sector at 62.32% and financial services sector at 39.24%. Contribution of capital markets is also maximum in case of non-manufacturing sector at 21.95% of the total finance. In the other two sectors, 17.64% and 15.96% is raised from the capital market. For the better understanding of relationship among the three sectors, the Manufacturing Sector, Non-Manufacturing Sector and Financial Services Sector, the Levene Statistic Test has been used and the following conclusions are drawn:

(a) The pattern of external financing of financial services sector is different from manufacturing and non-manufacturing sectors.

(b) The mean of capital market ratio is significantly different between manufacturing sector and non-manufacturing sector and also between manufacturing and financial services sector.

(c) All the three sectors are significantly different in terms of equity financing.

(d) The pattern of debt financing is almost same among all the sectors and there is no significant difference in the means.

On the basis of the above results, we reject the null hypothesis that the financing pattern of the companies across industries and sectors do not vary significantly.
7. *Pattern of Resource Mobilisation by Indian Corporate Sector-Size Wise*

The following conclusions are drawn on the basis of Levene Statistics test:

(a) The mean of the external finance ratio of medium size and large size companies is significantly different showing that the pattern of external finance for these two types of sample companies is different.

(b) There is no significant difference in the pattern of resources mobilised from capital market and through debt for all three sizes of companies.

(c) There is a significant difference in the pattern of equity financing for the three sizes of companies. Thus, the null hypothesis that equity financing for large size firm is not more important as compare to small firms is rejected.

8. *Pattern of Resource Mobilisation by Indian Corporate Sector-Age Wise*

New companies are showing trend in favour of equity related instruments rather than debt related instruments. Old companies are showing trend in favour of debt as compared to equity. This is contradicting the general fact that new firms are less dependent on equity market. The results of Levene Statistics test show that:

(a) The mean of equity finance is significantly different for all the three type of companies.

(b) The mean of the external debt ratio is not significantly different between old age companies and medium age companies. However, the mean difference of new age companies is significantly different from medium age and old age companies.

Thus, the null hypothesis that debt as a source of finance is not more important for the new companies is rejected.

9. *Relationship between Stock Market development and Pattern of Resource Mobilisation by the Indian Corporate Sector*

(a) Coefficient of Correlation table shows the following results:
i. The external finance ratio, Capital market ratio and debt finance ratio are negatively correlated with the Market capitalization ratio, showing that as size of the market increases, funds raised from these sources decline.

ii. Liquidity and volatility of the stock market is not showing any significant association with the funds raised from capital market. There is no significant association between size, liquidity and volatility of stock market on the contribution of equity market.

(b) On the basis of regression analysis, it is found that Market capitalisation ratio is the only significant independent variables, explaining the external finance ratio and capital market ratio. The relationship is negative showing that as the size of the market increases, the dependence of the corporate sector on capital market declines.

Therefore the null hypothesis that there is no relationship between stock market development and pattern of resource mobilisation by corporate sector is rejected.

(c) There is no significant relationship between stock market development and contribution of equity market as a source of finance. $R^2$ explains that only 16% of the variations in the observed values are explained by the independent variables. It can be concluded that equity market as a source of finance for corporate sector is independent of stock market development.

(d) The size of the stock market has shown significant negative impact on the ratio of external debt to total finance. $R^2$ indicates that 68% of the variations in the observed values are explained by the independent variables. The computed $F$ value is also higher than the critical value of $F$ at 5% level. It is significant at 1% level also. Hence regression is significant.
To conclude, there is a little relationship between the development of the stock market and the funds raised by the Indian corporate sector. The stock market reforms and the development of the capital market had hardly any impact on the financing decisions of the India corporates. It may be concluded that the number of other factors like cost of capital, the cost of alternative sources of financing, the availability of funds, action of the foreign institutional investors, the liquidity position in the globe and the sentiments of the retail investors etc. influence the financing activities of the corporate sector.

7.4 Contribution of the Study

The Indian economy is the one of the fastest growing economy among the emerging economies. Its demographic factors and the consumption story has been the major attraction for the large institutional investors. The various initiatives taken by the Indian government to bring the Indian capital markets at par with the international standards has been quite successful in attracting huge foreign institutional investors to India. The study has evaluated the pattern of resource mobilisation of companies as liberalisation proceeded.

The study shall be quite useful for the academicians, policy makers and the finance managers for their financing decisions. The study reveals many important conclusions and their implications that will play a vital role in having better understanding of stock market development and pattern of resource mobilisation by Indian corporate sector.

The present study, besides augmenting the existing empirical literature, has empirically challenged the theoretical belief. For instance, it has established the fact that stock market reforms do not necessarily attract the corporate houses to the stock market to raise the required funds. The study will be found useful from various dimensions and its justification is derived from wider considerations, both academic and practical in terms of national relevance.

The study will also be helpful to regulatory authorities like Securities and Exchange Board of India (SEBI) and other government regulated agencies. In
the economically integrated global world, the investment opportunities have expanded, financing options have widened and above all dependence on capital market has increased. Under these circumstances the empirical findings of this study will be quite useful for lending banks and institutions.

7.5 Suggestions for Future Research

The study has concentrated on relationship between stock market development and financing pattern of Indian corporate sector. A few suggestions and related areas where further investigations required are as follows:

1. Re-specification of financing ratios and inclusion of more ratios from the balance sheet of the companies is always a possibility.

2. The parameters of growth and development of the stock market can always be changed according to the changing importance of the capital market.

3. The study can be conducted on the basis of data of the companies listed on the national stock exchange which is more popular among the investors.

4. The performance of the derivatives market can be considered for the study.

5. The impact of external commercial borrowings and funds raised from ADR’s and GDR’s is hardly incorporated in the study, which can always be considered to improve the reliability of the findings.

6. A comparison on internal basis may be considered.

In the present chapter, an attempt has been made to summarise the observations made during the present study. The major findings of the research are being incorporated. The relevance of study and scope for future work has also been given in the subsequent sections of the chapter. The study shall be quite useful for the academicians, policy makers and the finance managers in taking their financing decisions. The study reveals many important conclusions and their implications that will play a vital role in having better understanding of stock market development and pattern of resource mobilisation by Indian corporate sector.