Chapter 8

Findings, Summary and Conclusions
8.1 Findings of the Study:

Taking a sample of 2,934 IPOs that went public during the period 1992 to 2011, study documents an average raw underpricing (which is not adjusted for market movement) of 60.21 percent when computed from the offering price to the closing price on the listing day. Such economically and statistically significant underpricing persists when computed from the offering price to the opening, high, and low price on the listing day and also when adjusted for market movement using various market indices. When the study period is split into two to further analyze the trend in underpricing, study finds that IPOs that went public during sub-period I ranging from 1992-2000, are underpriced more than their counterparts belonging to sub-period II which starts from 2001 and ends with 2011. However, both these sub-samples belonging to the two sub-periods are significantly underpriced at 1 percent level, even though the underpricing of IPOs belonging to sub-period II is economically less significant. Underpricing for the sub-sample of ‘delayed listing’ belonging to sub-period II, however, is not found to be significant at 5 percent level when computed using opening price and low price and adjusted for BSE 100 market return. Also, underpricing for the sub-sample of ‘infrequently traded IPOs’ is found to be significant using different prices on the listing day and when adjusted for various market indices. Further, we also find that book-built IPOs in India are less underpriced when compared to fixed-priced IPOs, while, both raw and market-adjusted measures of underpricing using opening, high, and closing prices on the listing day are found to be significant at 1 percent level, both these measures of underpricing (raw and market-adjusted) using low price on the listing day are found to be significant only at 5 percent level. Study does not find major difference in underpricing of public sector and private sector IPOs using various measures of underpricing. Overall, these findings on the listing day performance of IPOs for the whole sample and for majority of the cross-sectional groups lead us to reject the first hypothesis that IPOs are not underpriced based on the listing day performance. Next, when underpricing is computed for the sample of 162 FPOs for the study period of 1992-2011, both the measures – close-to-offer and offer-to-close – exhibit significant underpricing at 1 percent level. Such underpricing of FPOs persists when it is not adjusted for market movement and also when it is adjusted for market movement using BSE 100 and BSE Sensex. These findings lead us to reject the third hypothesis of our study that there is no significant underpricing of FPOs. Evaluating the long-run performance of IPOs in India, we find that IPOs that went public during the period 1992-2011 yield positive return to the investors who purchase these...
IPO shares at the closing price on the listing day. Using CAAR measure, study reports positive returns which are significant at 1 percent level, for one-year, three-year, and five-year intervals. However, cross-sectional analysis reveals that IPOs that went public during sub-period II, i.e., during the period 2001-2011, significantly underperform for all the three time intervals. When long run performance are analysed on the basis of issue method, we find that fixed-priced issues overperform, while book-built issues underperform up to five years from listing, both significant at 1 percent level. On comparison, we find that IPOs belonging to sub-period II, which consists of 365 book-built and 99 fixed-priced IPOs, underperform less severely as against book-built issue sample, which consists of 365 issues belonging to sub-period II and only 2 belonging to sub-period I, for three-year and five-year intervals post-listing. Further analysis reveals that fixed-priced issues belonging to sub-period II underperform up to one and a half year (375 days post-listing) and then onwards the negative return turns into positive. This positive return continues into the long run future up to five years and beyond. Such reversal of long run performance of fixed-priced IPOs belonging to sub-period II is responsible for the sub-period II IPO sample (which includes both fixed-priced and book-built IPOs) to underperform less severely compared to the long run performance of book-built IPOs’ sample, especially for year three and year five post-listing. In the case of IPOs from PSUs, we find that even though they underperform one-year post-listing, the underperformance is not significant even at 10 percent level, however, their performance is significant and positive three-year and five-year post-listing. The long run performance of IPOs from the private sector is very much in line with the long run performance of the IPOs for the whole sample. Overall, the findings on long run post-listing performance of IPOs in the aftermarket for the whole sample and for various cross-sectional groups lead us to reject the second hypothesis which states that investors cannot earn abnormal returns from IPOs in the post-listing period performance.

Examining the abnormal returns surrounding the opening of FPO issues by taking an event window of -30 to +30, we document that after the opening of the issues, the CAARs are significantly negative, while before the issue opening they were positive though not significant, for majority of the days. When announcement period abnormal returns are computed for varying event windows, we find that, except for event window of -1 to +1, for other event windows the CAARs are significantly negative. This leads us to reject hypothesis four in our study that investors cannot earn abnormal returns in the period surrounding the opening of FPO issues.
8.2 Conclusion:
In line with the international evidence on IPO underpricing, the present study finds that IPOs in India are also underpriced. Such a finding is consistent with findings of other studies on Indian IPOs. To mention a few, Narasimhan and Ramana (1995), Madhusoodanan and Thiripalraj (1997), Karmakar (2002), Chaturvedi et al (2006), Sehgal and Singh (2007), and Garg et al (2008) all find that IPOs in India are underpriced. In the present study, we report underpricing for the whole sample as well as for various cross-sectional groups. The documented underpricing in the study is for a sample of IPOs that largely belongs to the free pricing era after the abolition of CCI. This shows that even after the abolition of CCI and introduction of free pricing in India, the efficiency of new issue market did not improve. Consistent with Benveniste and Spindt (1989), Ljungqvist et al (2003), and Sherman (2005), who argue that book-building leads to better price discovery and therefore lower underpricing of IPOs, we document that book-built IPOs are underpriced by lesser magnitude. This confirms the findings of Bora et al (2012) that book-built IPOs in India are less underpriced when compared to fixed-priced IPOs. However, study does not find enough evidence to document major difference between the underpricing of public sector and private sector IPOs. As regards long run performance of IPOs, study documents major departure from internationally observed phenomenon. While vast majority of researchers have found long run underperformance of IPOs, we document that IPOs in India, especially belonging to the decade of the 1990s, offer positive return to the investors. However, IPOs belonging to sub-period II ranging from 2001 to 2011 and book-built IPOs, when considered separately, underperform the market indices up to five years post-listing. Consistent with Corwin (2003) who uses close-to-offer return measure, Kim and Park (2006) who use offer-to-close return measure, and Ghosh et al (2000) who use both these measures, we document significant underpricing of FPOs using both the measures. Finally, consistent with Bayless and Chaplinsky (1996), and Clark et al (2004) who have reported negative announcement period abnormal return consistent with the market interpreting the news of issue of shares by insiders with access to better information regarding firms' prospects more negatively, we also document negative cumulative average abnormal returns surrounding the opening of FPO issues for varying event windows.
8.3 Suggestions for Future Study:

As part of the financial liberalisation initiated by the government, several major changes have taken place in the financial market during the last two decades. Therefore, the primary market in India, specifically the IPO market, offers a very good test-bed for empirical studies considering the developments that have taken place in the capital market in India during the last two decades. Some of the potential areas for such future study include the following:

- The concept of IPO grading was introduced by SEBI in India, initially as an optional exercise in 2006, but later was made mandatory for all IPOs with effect from May 1, 2007. Even though there are studies about the impact of IPO grading on underpricing (Jacob and Agarwalla (2012), Khurshed et al. (2011), for example), there are no studies available analysing the long-run performance of IPOs on the basis of grading of IPOs. Therefore, future researchers may take up the study of the impact of IPO grading on the long-run performance of IPOs in the aftermarket.

- On August 24, 2009, BSE has launched S&P BSE IPO Index to track the value of companies for up to two years after listing subsequent to successful completion of their IPOs. The base date of the index taken was May 3, 2004 and the base index value set was 1,000 points. On August 21, 2009, the beginning index value was 1,901.67 (BL 25/08/2009). Therefore, for the IPOs that are launched from this date onwards, the listing day and the long-run market performance may be tested against the performance of this IPO index. Also, the return from this index (involving IPO scrips for up to two years from listing) may be compared against the returns from a portfolio involving seasoned securities to test whether IPOs offer better investment opportunities than seasoned securities to the investors.

- Finally, in the present study, abnormal return surrounding FPO issues was computed by taking the FPO issue opening date as the 0th day since the announcement date of FPO issues was not available, especially for the FPO issues of the decade of the 1990s. Future studies may consider the first announcement date of FPO issues, rather than the FPO issue opening date, as the 0th day in computing the announcement period abnormal returns.