The present chapter reviews the studies conducted on the performance of IPOs in the short term as well as the long run. This chapter is divided into two sections. The first section covers review of existing literature on IPOs market of other countries and second section incorporates existing literature on Indian IPOs market.

SECTION I

Review of Literature on Different Countries IPOs Market

Stoll and Curley (1970) focusing on 205 small offers found that in the short run, the stocks in the sample showed remarkable price appreciation and in the long run, investors in small firms did not fare so well.

McDonald and Fisher (1972) studied the price behaviour of 142 CSIROs during 1969. They examined prices from the offering date through the first week and found that on an average 28.50% of returns were generated during the period. They also examined prices over the first month from the offering date and found an average return of 34.60% per cent.

Logue (1973) examined the pricing behaviour of 250 CSIROs during 1965-69. He examined only the price change from the offering date to the first day of trading on which the prices were published and found a price rise of 30% per cent.

Ibbotson (1975) studied the risk and performance (measured by risk-adjustment returns) on newly issued common stocks which were offered to the public for the first time during the period from 1960 to 1969. The objectives of the study were to measure the initial returns from the offer date to the date when a public market was first established and to examine the aftermarket performance to test for departures from market efficiency. The study concluded that the average initial performance was positive (11.4%), while the distribution of returns was skewed so that the subscriber of a single random new issue offering had equal chance for gain or loss. The results were generally consistent with aftermarket efficiency. Positive initial return along with aftermarket efficiency indicated that new issue offerings were underpriced.

Ritter’s (1984) analysis indicated average underpricing of 26.5% per cent over the period (1977-92) whereas Buser & Chan (1987) examined the two years’
performance of 1078 NASDAQ IPOs in 1981-85 and found positive average initial returns of 6.2 per cent.

Rock (1986) presented a model for the underpricing of initial public offerings. The argument depended upon the existence of a group of investors whose information was superior to that of the firm as well as that of all other investors. If the new shares were priced at their expected value, these privileged investors crowd out the others when good issues were offered and them withdrawn from the market when bad issues were offered. The offering firm must price the shares at a discount in order to guarantee that the uninformed investors purchase the issue.

Dawson (1987) investigated both the short run and the long run performance of IPOs in Hong Kong, Singapore and Malaysia during the period from 1978 to 1983. While the Malaysian IPOs showed the most extreme underpricing of 166.6 per cent, the average underpricing in Hong-Kong and Singapore was 13.8 per cent and 39.4 per cent respectively. It also found that the one year market adjusted returns for initial public offerings in Hong Kong were down 9.3 per cent, and those in Singapore were down 2.7 per cent. However, neither decline was statistically significant. In contrast, there was a positive, statistically overperformance in Malaysia of 18.2 per cent. The author pointed out that the Malaysian index he used was not a market wide one, but an industrial one.

Jog and Riding (1987) examined underpricing of Canadian IPOs by analysing 100 IPOs during the 1971-83 periods. The results showed that the average degree of underpricing ranged from 9 per cent to 11.5 per cent.

Miller and Reilly (1987) found an average excess return of 9.9 per cent during the first day of trading with the sample size of 510 IPOs during 1982 to 1983. In another study Muscarlla and Vetsuypens (1987) found that the average initial return of the 14 self-underwritten issues was 12.69 per cent. In contrast, when the issuing firms did not serve as the lead manager of their own offerings, the securities were underpriced by only 3 per cent. Chalk and Peavy (1987) in a study of 649 IPOs during the 1975-1982 period, found an average return of 21.7 per cent during the first day of trading.

Uhlir (1988) found an underperformance of 7.4 per cent after one year for German issues 1977-1987. Finn & Higham’s (1988) examined 93 Australian IPOs for
1966-1978. They found that buying at the end of the listing month and holding to the end of the first year earned 6.52 per cent below the indices, but that this loss was not quite statistically significant. Simon (1988) found that IPOs offered from 1926 to 1933 listed on regional exchanges showed substantial underperformance over 60 months.


Similarly, in another study, Aggarwal and Rivoli (1990) examined the long run performance of their sample of 1598 IPOs offered from 1977 to 1987 by IPO firms. They found that investors purchasing IPOs at the end of the first day of trading and holding them to the 250th trading day (roughly one calendar year earned a negative cumulative average abnormal return of 213.75 per cent. They argued that the IPOs’ long run underperformance may be due to fads or speculative bubbles in the early aftermarket stage.

Keasey and Short (1992) investigated the level of underpricing of IPOs in the UK, during 1984-1988. The level of underpricing of IPOs was 14 per cent. Aggarwal, Leal and Hernandez (1993) examined the performance of IPOs in both the short run and the long run based on sample of 62 Brazilian IPOs during from 1980 to 1990, 36 Chilean IPOs from 1982 to 1990 and 44 Mexican IPOs from 1987 to 1990. Results indicated that initial one-day returns were found to be 78.5 per cent, 16.3 per cent and 2.8 per cent for Brazil, Chile and Mexico respectively. Levis (1993) reported average first day return of 14.3 per cent for 712 UK IPOs during the period of 1980-88.

Loughran (1993) examined the returns from 3,556 IPOs during 1967-1987 and found an average six year total return of 17.29 per cent compared with 76.23 per cent for the NASDAQ index during an identical period. Strong underperformance was also found in comparison with the firms of similar size on both the New York Stock Exchange and on NASDAQ.

Keloharju (1993) reported that 80 Finnish IPOs issued between 1984 and 1989 posted an average 8.7 per cent initial day excess returns over the Finnish market.
index. He found that a strategy of investing in IPOs on the first trading day and holding them for 36 months from the IPO date would have left with only 79 per cent than for each dollar invested in the Helsinki Stock Exchange (HSE) value-weighted index. Sufar (1993) found a loss of 10.9 per cent over 12 months in the secondary market. However, contrary to the findings of Sufar (1993), Mohamed et al. (1994) examined the long-term performance of 65 IPOs over the 1975-1990 periods. Their findings suggested that in the long run of 3 years Malaysian IPOs neither outperformed for nor underperformed in the market.

Ibbotson et al. (1994) found a positive initial day returns of 15.3 per cent in the US. Kunz and Aggarwal (1994) examined the IPOs at Swiss stock market by using sample of 42 IPOs from 1993 to 1989. The results indicated an average initial return of 35.8 per cent. Kazatzis and Levis (1994) investigated IPOs in Greece by using a sample of 79 firms going public from 1987 to 1991. The results showed that Greek IPOs were on an average underpriced by 48.5 per cent.

Kim et al. (1994) examined Korean IPOs of 169 firms during the period of 1985-89. The results revealed that the Korean IPOs outperformed seasoned firms with similar characteristics. Much of the over performance took place during the first month and the long run performance of Korean IPOs was not statistically different from that of seasoned firms. in addition, the deregulation, taking place in 1988, reduced, the initial underpricing but it had no impact on the long run IPO performance.

Loughran, Ritter and Rydqvist (1994) gave a summary of the equally weighted average initial return on IPOs in a number of countries around the world in the form of a very illustrative table, which makes an easy comparison of the whole scenario. This Table, which has been updated till February 10, 2010, has been reproduced. They cited contrasts in regulatory environments, contractual arrangement, and firm characteristics as causes of varying degree of IPO underperformance across countries. They anticipated underperformance in Asian countries to diminish during the 1990s as compared to the 1980s due to mitigation of regulatory constraints.
## Table 2.1

**Equally Weighted Average Initial Returns for 45 Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Source</th>
<th>Sample</th>
<th>Period</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>Eigenhuijsen &amp; van der Valk</td>
<td>20</td>
<td>1992-1994</td>
<td>4.4%</td>
</tr>
<tr>
<td>Australia</td>
<td>Lee, Talyor &amp; Walter, Woo, Pham, Ritter</td>
<td>1,103</td>
<td>1976-2006</td>
<td>19.8%</td>
</tr>
<tr>
<td>Austria</td>
<td>Aussenegg</td>
<td>96</td>
<td>1971-2006</td>
<td>6.5%</td>
</tr>
<tr>
<td>Belgium</td>
<td>Rogiers, Manigart &amp; Ooghe, Manigart DuMortier, Ritter</td>
<td>114</td>
<td>1984-2006</td>
<td>13.5%</td>
</tr>
<tr>
<td>Brazil</td>
<td>Aggarwal, Leal &amp; Hernandez, Saito</td>
<td>180</td>
<td>1979-2006</td>
<td>48.7%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>Nikolov</td>
<td>9</td>
<td>2004-2007</td>
<td>36.5%</td>
</tr>
<tr>
<td>Canada</td>
<td>Jog &amp; Riding, Jog &amp; Srivastava, Kryaowski, Lazrak &amp; Rakita, Ritter</td>
<td>635</td>
<td>1971-2006</td>
<td>7.1%</td>
</tr>
<tr>
<td>Chile</td>
<td>Aggarwal, Leal &amp; Hernandez, Celiis &amp; Maturana; Ritter</td>
<td>65</td>
<td>1982-2006</td>
<td>8.4%</td>
</tr>
<tr>
<td>China</td>
<td>Chen, Choi, and Jiang (A Shares)</td>
<td>1,394</td>
<td>1990-2005</td>
<td>164.5%</td>
</tr>
<tr>
<td>Cyprus</td>
<td>Gounopoulos, Nounis, and Stylianides</td>
<td>51</td>
<td>1999-2002</td>
<td>23.7%</td>
</tr>
<tr>
<td>Denmark</td>
<td>Jakobsen &amp; Sorensen, Ritter</td>
<td>145</td>
<td>1984-2006</td>
<td>8.1%</td>
</tr>
<tr>
<td>Finland</td>
<td>Keloharju</td>
<td>162</td>
<td>1971-2006</td>
<td>17.2%</td>
</tr>
<tr>
<td>Germany</td>
<td>Ljungqvist, Rocholl, Ritter, Vismara</td>
<td>700</td>
<td>1978-2008</td>
<td>25.3%</td>
</tr>
<tr>
<td>Greece</td>
<td>Nounis, Kazantzis &amp; Thomas</td>
<td>372</td>
<td>1976-2007</td>
<td>50.9%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>McGuinness, Zhao &amp; Wu, Ljungqvist &amp; Yu, Fung,Gul, and Radhakrishnan, Ritter</td>
<td>1,008</td>
<td>1980-2006</td>
<td>15.9%</td>
</tr>
<tr>
<td>India</td>
<td>Marisetty, and Subrahmanyanam</td>
<td>2,811</td>
<td>1990-2007</td>
<td>92.7%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>Hanafi, Danny, Suherman</td>
<td>339</td>
<td>1989-2008</td>
<td>21.5%</td>
</tr>
<tr>
<td>Iran</td>
<td>Bagherzadeh</td>
<td>279</td>
<td>1991-2004</td>
<td>22.4%</td>
</tr>
<tr>
<td>Ireland</td>
<td>Ritter</td>
<td>31</td>
<td>1999-2006</td>
<td>23.7%</td>
</tr>
<tr>
<td>Israel</td>
<td>Kandel, Sarig &amp; Wohl, Amihud &amp; Hauser, Ritter</td>
<td>348</td>
<td>1990-2006</td>
<td>13.8%</td>
</tr>
<tr>
<td>Italy</td>
<td>Arosio, Giudici &amp; Paleari, Cassia, Paleari&amp;Redondi, Vismara</td>
<td>268</td>
<td>1985-2008</td>
<td>16.4%</td>
</tr>
<tr>
<td>Japan</td>
<td>Fukuda, Dawson &amp; Hiraki, Habner &amp; Hiraki, Pettway &amp; Kaneko, Hamao, Packer &amp; Ritter; Kaneko &amp; Pettway; Ritter; Tokyo IPO.com</td>
<td>2,628</td>
<td>1970-2008</td>
<td>40.1%</td>
</tr>
</tbody>
</table>
Table 2.1 shows the cross-sectional variation in underpricing, ranging from a low of 4.2 per cent in Russia to a high of 164.5 per cent in China. As can be observed from table very high underpricing exists in China, India, Brazil, Thailand, Greece, Japan, etc. and comparatively lesser underpricing has been documented in countries like Austria, Germany, Australia, U.S. and Tunisia. They contended that the differences in underpricing might result from differences in institutional
arrangements. In short, the international studies reviewed above consistently find short-term underpricing.

Lee, Taylor and Walter (1994) analysed both initial underpricing and post listing returns of 266 Australian IPOs during the period of 1976-1989. The results showed that the Australian IPOs significantly over performed the market initially by 11.8 per cent, but underperformed market movements in the three years period subsequent to listing by (-)51 per cent. They also suggested a curvilinear relationship between initial returns and subsequent returns. Lqungqvist (1995) found underpricing to be 78 per cent in German market by using a sample of 145 IPOs and a third-anniversary average cumulative abnormal return of -54 per cent.

Yong, Othman (1994) recorded the level of underpricing of IPOs in Malaysia with the help of 158 IPOs over the period from January 1990 to December 1993. This study documented an average first day return of 59.253 per cent (57.379 per cent adjusted return) an average substantially lower than the earlier studies on the KLSE. The average oversubscription ratio of 28.028 times was also lower than the earlier studies. This study also showed that mean returns tends to decline after the first week and the first month of trading. However significant positive mean returns can again be received after the third month. The returns after one year average 26.323 per cent but significantly less, i.e 4.866 per cent, after adjustment for market movements. Initial observations seemed to indicate that larger the size of the company the lower is the mean return a phenomenon consistent with the size effect but statistically speaking this is not significant. It also found that the larger the oversubscription ratio, larger is the mean initial return. However, the adjusted mean returns after one year showed an opposite result, i.e. the smaller the oversubscription ratio, larger is the adjusted mean return after one year.

Lee, Taylor and Walter (1996) investigated initial and long run returns for Singaporean IPOs during the period of 1973-1993. They reported initial returns of 30 per cent, which were positively related to the level of oversubscription and retained ownership. In the long run, no significant underperformance was detected.

Huang (1997) reported IPO initial returns of over 130 per cent in Poland and 74 per cent in Malaysia. Benveniste and Busaba (1997) compared two mechanisms for selling IPOs, the fixed price method and American book-building method, when investors have correlated information and can observe each other's subscription decisions. In this environment, the fixed price method is a strategy that can create cascading demand. Alternatively, and underwriter building a book aggregates investor information into the offer price. They found that bookbuilding generates higher expected proceeds but exposes the issuer to greater uncertainty, and that it provides the option to sell additional shares that are not underpriced on the margin.

Paudyal et al. (1998) compared the market-adjusted initial premium discount of privatisation initial public offers (PIPOs) with that of a sample of private sector IPOs using data for the period January 1984 to September 1995. The sample comprised 95 IPOs coming to the KLSE main board out of a total population of 173 new issues. Of the 95 IPOs, 18 were privatised companies and 77 were private sector IPOs and the total sample represented 55 per cent of the total initial public offers made during the sample period. The analysis of initial excess returns suggested that, on an average, Malaysian IPOs were underpriced and PIPOs offered significantly higher initial returns than other IPOs.

Krigam, Shaw and Womack (1999) examined the underwriters’ pricing errors and the information content of first day trading activity in IPOs. The sample consisted of 1232 large-capitalization IPOs in the period from 1988 to 1995 of which 244 began trading on the NYSE, 31 on the AMEX and 957 (78 percent) on NASDAQ. They found that first-day winner continue to be winners over the first year and first-day dogs continue to be relative dogs. Exceptions were “extra hot” IPOs, which provide the worst future performance. They also demonstrated that large, supposedly informed, trader “flip” IPOs that perform the worst in future. IPOs with low flipping generated abnormal returns of 1.5 percentage points per month over the first six months.
beginning on the third day. The results showed that flipping was predictable and concluded that underwriters’ pricing errors were intentional.

Khurshed, Mudambi and Goergen (1999) found that long-run performance of IPOs was a function of pre-IPO factors, including managerial decisions and the firm’s performance prior to going public. They related long-run performance to a much richer set of explanatory factors than in the previous literature. Using a number of variables, they provided empirical evidence in support of this proposition. The manner in which a company is run before it is listed on the stock exchange gives a strong signal of how its shares will perform in its first few years of coming to the market. Using a UK data set, they found that the percentage of equity issued and the degree of multi-nationality were key predictors of IPO performance.

Allen and Morkel (1999) conducted a study to analysis the long run performance of initial public offerings (IPOs) on the Thai Stock Exchange with the help of a sample of 150 IPOs listed on the Thai Exchange Main Board between 1985 and 1992. The initial return was found to be 63.49 per cent. The cumulative adjusted return at the end of the three year anniversary was found to be 10.02 per cent. This result contrasted with those of most of the studies of long run IPO performance in developed market. This result, however, appeared sensitive to outlying observation. While there was no significant evidence that the IPOs underperformed in the market in the long run, removal of outliers from cross-sectional analysis suggested that Thai IPOs may underperform the market in the long run.

Hensler, Herrera and Lockwood (2000) examined the performance of initial public offerings (IPOs) in Mexico. They examined all Mexican IPOs during the period from January 1987 to August 1993 using daily stock prices, measuring performance of IPOs relative to the IPC (Indice de Preciosy Cotizaciones) market index. The sample consisted of 68 IPOs, which number, by year, 32, 11, 3, 6, 15, and 1 from 1987 to 1992, respectively. They found that the performance of bank, brokerage, industrial, and service IPOs varied markedly. Bank experienced much larger initial underpricing than non-banks. The initial returns for firms privatised later in the sample period were far below those firms privatised early in the sample.
Naceur (2000) examined the short and long run performance of Tunisian IPOs. The findings of this study can be summarized as follows: (1) significant initial underpricing of 24.5 per cent was found for the sample of 12 IPOs consistent with studies performed in the US and other countries, (2) significant aftermarket returns of 11.04 per cent found confirming underpricing but contrasting with quite all previous studies. Then the underpricing hypothesis was supported and the fad hypothesis rejected.

Aggarwal et al. (2000) examined the relationship between investor demand for IPOs prior to offering and aftermarket performance of IPOs firm during the period from 1993 to 1997 in the Hong Kong stock market. It was found that the IPOs with high investor demand have large positive initial returns but negative long-run excess returns, while the IPOs with low investor demand have negative initial returns but positive longer run excess returns. It demonstrated from the study that investor demand for IPOs was largely driven by investor over-optimistic and over-pessimistic reaction to the information about the IPO prospects prior to offerings.

Kiymaz (2000) examined the initial and aftermarket returns for the Turkish IPOs to provide an emerging market case of international evidence on the performance of IPOs. The sample consisted of 163 firms listed that traded on the Istanbul Stock Exchange during 1990-1996. The result showed that the Turkish IPOs were underpriced on the initial trading day on an average of 13.1 per cent. The initial underpricing was 11.7 per cent for industrial firms, 15 per cent for financial firm and 17.6 per cent for others. In terms of sub-sectors the highest return was obtained in Tourism/Transportation group, while the lowest return was observed in Machinery/Equipment group. With the exception of banking group, all of the sub-sectors experienced statistically significant initial underpricing. The investigation of factors influencing the initial performance showed that size of issuer, rising stock market between the date of issue and first trading day, institutional ownership were significant determinants of underpricing.

Howe et al. (2000) examined the initial performance of 130 Australian mining IPOs issued from 1979 to 1990. The results showed an average underpricing of 107.18 per cent significantly higher than that previously documented for industrial firms. Wong and Uddin (2000) carried out a study to examine the relationship between the
listing lag and the underpricing. They examined a sample of 493 IPOs listed on the Kuala Lumpur Stock Exchange (KLSE) in 1989-98 for this. They found that the gross underpricing was about 96.58 per cent. The real underpricing stood at 56.64 per cent after adjusting for the investors’ cost of fund. Investors earned this high excess returns because of non-market-driven pricing of the offer.

Aroria, Guidici and Paleari (2001) analysed that in most industrialized countries IPOs seem to underperform both the market and portfolios of comparable firms in the long-run, despite the initial underpricing. In this paper, they collected data for a comprehensive sample of 150 IPOs on the Italian Stock Exchange, issued between 1985 and 1999. They analyzed the long run performance, using the market index as referring benchmark. They found that most recent IPOs do severely underperform the market, while IPOs in the ’80s do not exhibit significant different returns from the other stock. They also found a significant negative correlation between long run relative performance and initial flipping and suggested that some investors possess superior information on IPOs.

Houge, Loughran, Suchanek and Yan (2001) explored the relation between investor uncertainty, divergence of opinion and the performance of initial public offerings (IPOs) with the help of 2,025 IPOs of which the vast majority (86.8%) initially listed on NASDAQ. They examined three opening-day proxies: the percentage opening spread, time of first trade and flipping ratio. After controlling the issue quality, they found that all three variables provide significant explanatory power of IPO returns. Specifically, they associated a wide opening spread, late opening trade and high flipping ratio with poor long-run returns.

Cornelli and Goldreich (2001) investigated that in the bookbuilding procedure; an investment banker solicits bids for shares from institutional investors prior to pricing an equity issue. The banker then priced the issue and allocated shares at his discretion to the investors. They examined the books for 39 international equity issues. They found that the investment banker awarded more shares to bidders who provide information in their bids. Regular investors received favourable allocations, especially when the issue was heavily oversubscribed. The investment banker also favoured revised bids and domestic investors.
Chan et al. (2001) explained that the under-pricing and long-term performance of 570 A-share IPOs and 39 B-share IPOs issued in China. The average under-pricing for A-share IPOs was 178 per cent, while the average under-pricing for B-share IPOs was only 11.6 per cent. Some institutional characteristics in China could explain the under-pricing of A-share IPOs. The under-pricing was positively related to the number of days between the offering and the listing and the number of stock investors in the province from which the IPO date comes. However; it was negatively related to the number of shares being issued. In contrast, none of these characteristics explained the under-pricing of B-share IPOs. In the long-run, there was no stock price underperformance of both A-share and B-share IPOs. Furthermore, the stock price performance was partially related to the operating performance of the company.

Clark (2002) documented overall IPO-aftermarket underperformance during the 1991 to 1997 period. The study found a statistically significant correlation between firm age-at-IPO and post-IPO excess returns. However, when the firms were disaggregated into technology and non-technology panels, the study suggested that the relationship between age and returns is different between the two categories. Among technology enterprises, very young firms outperformed older firms, though the difference in return between the two age groups did not rise to a high level of statistical significance. It noted that the performance of young technology firms may have been a peculiar result, distorted by the dramatically rising market of 1995-2000. The study also offered the alternative idea that the market may have underestimated the unusually strong prospects of this group of young technology IPO’s relative to older technology firms. Non-technology firms, on the other hand, exhibited a positive monotone correlation between firm age and excess holding period returns. A regression confirmed this positive relationship, established at a high degree of statistical significance.

Aggarwal, Prabhala and Puri (2002) analyzed institutional allocation in initial public offerings (IPOs) using a new data set of U.S. offerings between 1997 and 1998. They documented a positive relationship between institutional and day one IPOs returns. This was partly explained by the practice of giving institutions more shares in IPOs with strong premarket demand, consistent with book-building theories.
However, institutional allocation also contained private information about first day IPO returns not reflected in premarket demand and other public information. They supported book-building theories of IPO underpricing but suggested that institutional allocation in underpriced issues was in excess of that explained by book-building alone.

Ritter and Welch (2002) have evidence on IPO activity: why firms go public, why they reward first-day investors with considerable underpricing, and how IPOs perform in the long run. Their perspective was threefold: First, they believed that many IPO phenomena are not stationary. Second, they believed that research into share allocation issues was the most promising area of research in IPOs at the moment. Third, they argued that asymmetric information was not the primary driver of many IPO phenomena. Instead, they believed future progress in the literature will come from non-rational and agency conflict explanations.

Brounen and Eichholtz (2002) investigated that the underpricing and long-run performance of Initial Public Offerings (IPOs), using a unique sample consisting of 54 British, French and Swedish property companies, which became publicly listed during the period 1984-1999. Similar to common stock IPOs, the European property share IPOs in the sample outperformed the benchmark on the first day of trading, on average with 2.55%. However, these property share IPOs tend to underperformed their benchmark over the twelve-month period subsequent to the initial offering. It also found explanatory factors such as issue size, the degree of debt financing, ex-ante uncertainty, and the underlying property types of the companies involved. The results were in line with those previously found for common stocks.

Michelle and William (2002) examined that both IPO volume and average initial returns were highly correlated. Further, more companies tend to go public following periods of high initial returns. However, they found that the level of average initial returns at the time of filing contains no information about that company’s eventual underpricing. Both the cycles in initial returns and the lead-lag relation between initial returns and IPO volume were predominantly driven by information gathered during the registration period.
Rajan and Servaes (2002) developed a simple model which two market conditions change over time: (i) investor sentiment or price-insensitive demand; and (ii) feedback trader risk or the propensity of investors to chase trends. The model showed that these conditions partially explain the three anomalies associated with the IPO market: (i) underpricing; (ii) windows of opportunity for new issues and (iii) long-term underperformance. The model is tested using a sample of firm commitment IPOs over the 1975-1987 periods. The paper found that the predictions of the model are largely borne out in the data.

Chen et al. (2004) investigated that the pricing of initial public offerings of A-shares sold to domestic investors and B-shares sold to foreign investors. Data consisted of 701 A-share IPOs and 117 B-shares IPOs that listed in the period 1992-97. The median initial return on A-share IPOs was 145 per cent while the median underpricing of B-share was just 10 per cent. They found that risk was strongly and positively associated with underpricing of A-shares and shares underpricing was positively related to SEOs, and government ownership and underpricing was the positive function of the relative price to book ratio and the relative price-earnings multiple.

Jenkinson and Jones (2004) used a data set of 27 European IPOs to analyze how investors bid and the factors that influence their allocations. They used a unique ranking of investor quality, associated with the likelihood of flipping the IPO. They found that investors perceived to be long-term holders of the stock are consistently favoured in allocation and in out of turn profits. In contrast to Cornelli and Goldreich (2001), they found little evidence that more informative bids receive larger allocations or higher profits. The results cast doubt upon the extent of information production during the bookbuilding period.

Falconieri et al. (2004) made a comparative study of the comparison the size of underpricing on NASDAQ IPOs and NYSE IPOs by using a matched sample of all IPOs between January 1993 and December 1998. They showed that the size of underpricing also depends on the trading method used in the IPO aftermarket. There were two major methods of opening trading of IPOs in the U.S. The NSYE was an order-driven market where a call auction allowed supply and demand to be aggregated (at one location) prior to the start of trading. In contrast NASDAQ was a quote-driven
market. Dealers can only specify their best quotes and participants have no idea of supply and demand away from the inside quotes. They also documented a higher level of underpricing for NASDAQ IPOs than for NYSE IPOs. The results showed that there was a larger level of uncertainty in the beginning of trading on NASDAQ than on the NYSE and it associated with larger levels of underpricing for NASDAQ IPOs. They suggested that this may be due to the different informational efficiency of the two trading system.

Chung et al. (2005) explained a simple model that initial public offering price was equal to the present value of an equity asset in place and growth opportunities. The model predicted that initial return is positively related to both the size and risk of growth opportunities. The study was based on the examination of 1547 IPOs on the NYSE/AMEX and NASDAQ from May 1996 to December 2001. Consistent with this prediction; they found initial return to be positively related to both the fraction of the offer price that was accounted for by the present value of growth opportunities and various proxies of issue uncertainty.

Deffien (2005) explored that the impact of investor sentiment on IPO pricing. Using a model in which the aftermarket price of IPO shares depends on the information about the intrinsic value of the company and investor sentiment. It showed that IPOs can be overpriced and still exhibit positive initial return. A sample of French offerings with a fraction of the shares reserved for individual investors’ supported the predictions of the model. Individual investors’ demand was positively related to market conditions. Moreover, large individual investors’ demand leads to high IPO prices, large initial returns, and poor long-run performance.

Derrien (2005) analysed that the short-run and long-run performance of 340 and 409 IPOs, respectively, listed on China’s two exchanges from 1996 to 1997. They found that the average underpricing was 127.3 per cent, and that the average market-adjusted cumulative return and buy-and-hold return over the three years after listing were 10.3 per cent and 10.7 per cent, respectively, which were both significantly positive at the 5 per cent level. They used a cross-sectional analysis to explain the long-run out-performance of Chinese IPOs, and found that firms with lower government ownership, smaller offering sizes, high tech features and lower initial returns perform better in the long-run.
Boabang (2005) investigated the initial pricing and performance of Canadian unit trust IPOs over a three- to four-year period and then drew implications for the efficiency of the Canadian market. Overall, the results confirmed the following: in the short term, unit trust IPOs were underpriced and outperformed in the Canadian market; in the medium term, IPOs were fairly priced and neither outperformed nor underperformed the Canadian market; and in the long term, IPOs were fairly priced but underperform the Canadian market. In addition, the results confirmed that the size of underpricing was related to ex-ante uncertainty about the value of the issue. Ex-ante uncertainty proxies, namely total risk, exchange listing, relative bid-ask spread, and relative volume of initial trade, all explain the size of underpricing. When the effects of these factors were controlled, the results confirmed that Canadian unit trust IPOs were indeed overpriced in the short term but underpriced in the long term. It can be concluded that the Canadian unit trust IPO market appears to be inefficient in the short and long term, but over the medium, the market appears to be efficient.

Sherman (2005) explained that the U.S. book-building method has become increasingly popular for initial public offerings (IPOs) worldwide over the last decade. Whereas, sealed-bid IPO auctions have been abandoned in nearly most of the countries in which they have been tried. Book building lets underwriters manage investor access to shares, allowing them to reduce risk for both issuers and investors and to control spending on information acquisition, thereby limiting either underpricing or aftermarket volatility. Because more control and less risk are beneficial to all issuers, the advantages of book building's allocation flexibility could explain why global patterns of issuer choice are surprisingly consistent. These models also predicted that offerings with higher expected underpricing have lower expected aftermarket volatility; that an auction open to large numbers of potential bidders is vulnerable to inaccurate pricing and to fluctuations in the number of bidders; and that both book-built and auctioned IPOs will exhibit partial adjustment to both private and public information.

Mingsheng et al. (2005) explained the adverse selection component of the spread as a measure of asymmetric information; they investigated how asymmetric information evolves after firms go public. It found that the level of asymmetric information was lower immediately after the initial public offering (IPO) compared
with its level after a period of seasoning. In addition, they tested the hypothesis that the greater the underpricing of an IPO, more information was received from its aftermarket and the lower the aggregate level of asymmetric information. The results were consistent with the hypothesis and were robust after controlling the other factors.

Cornelli et al. (2006) examined whether irrational behaviour among small (retail) investors drives post-IPO prices. They used prices from the grey market to proxy for small investors’ valuations. High grey market prices (indicating over optimism) are a very good predictor of first-day aftermarket prices, while low grey market prices (indicating excessive pessimism) are not. Moreover, they found long-run price reversal only following high grey market prices. This asymmetry occurred because larger (institutional) investors can choose between keeping the shares they were allocated in the IPO, and reselling them when small investors are overoptimistic.

Guray (2006) observed what kind of selling and underwriting procedure might be preferred for controlling the amount and volatility of underpricing in Istanbul Stock Exchange (ISE). Using 1993-2005 firms and issue data and compared the three substantially different IPOs methods available in the ISE i.e. book building mechanism, fixed price offer, and the third one was the sale through the stock exchange method. The empirical analysis revealed significant first day underpricing of 7.01 per cent in fixed price offer, 11.47 per cent in book building mechanism, and 15.68 per cent in sale through the stock exchange method. Finally, it showed that fixed price offer can better control the impact of market information on underpricing than sale through the stock exchange method.

Cheng et al. (2006) considered the impact of a change to listing rules covering IPO performance in the Hong Kong stock market. The change, introduced in 1994, imposed a three-year prelisting earning requirement on new issues. The objective of this research was to screen out a subset of poor IPO performers. They found there was no significant difference in performance between IPOs before and after the regulatory change. They further divided the sample of IPOs registered before the regulatory change into two sub-samples: those that did and those that did not fulfil the earnings requirement. The result showed that there was no significant difference in performance between the two IPO sub-samples. This implied that the existence of pre-listing earnings do not guarantee good long-term IPO performance and the pre-
listing earnings of new issues was not an effective screen for ‘bad’ IPO performers. The study further analysed the rationale for the rule change in the context of recent developments in the Hong Kong stock market and concluded that the rule change was part of the reform programme aimed at introducing a second board market for small companies and at attracting more China-related listings to the main board.

Pukthuanthong and Varaiya (2007) explored block sales following IPOs were related to the IPOs’ value relative to an estimate of intrinsic value, opening-trade return, and IPO size. Overvalued IPOs experience more block sales than undervalued IPOs. IPOs with high block sales outperformed IPOs with low block sales from 20 days after IPO through lockup expiration; however, IPOs with high block sales underperform IPOs with low block sales from lockup expiration through the third year after the IPO. The results indicated that block traders were advantaged relative to other traders; whether the advantage was based on superior information or superior valuation capabilities was unknown.

Chang et al. (2007) examined the determinants of post-IPO long-term return and operating performance of companies in China. They divided the determinants into two main groups: investor sentiment and governance systems. They found that the investor sentiment was a major determinant of post-IPO performance. In particular, more underpriced IPOs and IPOs offered at a higher P/E ratio earn lower subsequent stock returns. However, the relation was the opposite when they examined the change in operating performance. They argued that the discrepancy was probably due to overreaction of investors to the implications of the predicted change in performance. Governance mechanisms, such as reputable underwriters, block holders and managerial ownership also have significant impact on post-IPO performance, but only for the later sample period. They interpreted this result as an evidence of China’s stock market getting closer to the U.S. one, in terms of development of institutional settings.

Jovanovic and Szentes (2007) compared two IPO mechanisms, auctions and book building in one model. They found that book building discloses more information about a firm and only bad-quality sellers tend to want to use auctions. This adverse selection may minimize auctions or eliminate them altogether which, indeed, is what has happened in most places. Underpricing of IPOs arises under book
building but not under auctions, which agrees with the evidence. The evidence also showed a mildly negative relation between price revisions and the underpricing of shares, and this the model generates as well.

Nurwati et al. (2007) investigated the long run share price performance of 454 Malaysian IPOs during the period 1990 to 2000. In contrast with developed markets, significant over performance found for equally-weighted event time CARs and buy-and-hold returns using two market benchmarks, though not for value-weighted returns or using a matched company benchmark. The significant abnormal performance also disappeared under the calendar-time approach using the Fama-French (1993) three factor model. While the long run performance of Main and Second Board IPOs does not differ, the year of listing, issue proceeds and initial returns were found to be performance-related.

Sohail and Raheman (2009) explored the level of under-pricing of 50 IPOs of financial and non-financial firms listed on Karachi Stock Exchange from the period 2000 to 2006. Like other countries, the underpricing was also found in Pakistani IPOs and the average under-pricing in financial firms was 34.52 per cent, the average under-pricing in non-financial firms was 36.80 per cent, while jointly the average under-pricing of all IPOs was 35.66 per cent. The long-run performance was also documented by using CAR (cumulative abnormal return) and BHAR (buy-and-hold abnormal return) models and found that these IPOs under-perform in long run. The year wise analysis of IPOs regarding financial and non-financial firms was also geared up. The cross-sectional analysis to explain the level of under-pricing regarding financial firms & non-financial firms is determined by different variables and found that ex-ante uncertainty, offer size, market capitalization and over-subscription variables showed greater effect while a modest power of explaining the under-pricing by percentage of shares offered, price earnings ratio, secondary issue and market volatility variables.

Dimovski (2009) analysed 45 property trust Initial Public Offerings (IPOs) in Australia from January 2002 to June 2008. It found that this sample of property trust IPOs had a significant 3.37% underpricing and that the direct costs of capital raising help explain this indirect cost of underpricing. There was some evidence also to suggest that property trust IPOs that seek to raise more equity capital have less
underpricing while those that were subscribed to more quickly have higher underpricing. The findings offer insights for issuers who seek to maximize the value of the trust at the time of the IPO, underwriters who guarantee the success of the capital raising and for investors who are looking to invest in Australian property trust IPOs.

SECTION II
Review of Literature on Indian IPOs Market

Shah (1995) analysed the empirical regularities about India’s IPO market, via dataset of 2056, IPOs between time periods of 1991-1995. In this study, time series regression analysis has been used. The empirical findings of this study highlighted that the price at first listing was 105.6 per cent above the offer price on an average. Secondly, listing delay affects the IPO underpricing and was strongly related with the issue size. Finally, underpricing gently increased with offer price. But the shortcoming of the study was that stock market return may also affected the very IPO planning process via longer lags but the sample period runs too short to identify this.

In this study, Narasimhan and Ramana (1995) focussed on the determination of the short-run returns of IPOs listed on the BSE. The analysis was carried out in two different time periods; phase-1, in which market index was on the rise and phase-II, when the index was on the decline. The study observed homogeneity in the degree of underpricing across time period. It further observed that the extent to which premium issues were underpriced was greater than in the case of par issues.

Madhusoodanan and Thiripalraju (1997) investigated the Indian IPO market for the short term as well as long term. The study used a sample of 1922 companies, which came out with issues and listed on BSE from 1992-1995.They concluded that the returns given by the Indian IPOs were very high in the short run compared to the experiences of other countries. They also examined the impact of the issue size on the extent of underpricing in these offerings and the performance of the merchant bankers in pricing these issues. The study indicated that, in general, the underpricing in the Indian IPOs in the short run was higher than the experiences of other countries. In the long-run too, Indian offerings have given high returns compared to negative returns
reported from other countries. The study also revealed that none of the merchant bankers showed any better pricing capabilities.

Kakati (1999) analyzed the performance of a sample of 500 Indian IPOs that came to the market during January 1993 to March 1996 and documented that the short run performance underpricing was to the tune of 36.6 per cent and in the long run the overpricing is 40.8 per cent.

Pandey and Kumar (2001) examined that IPO by a firm calls for assessment of potential agency problems and associated costs by the outside investors. The potential conflict of interest problems between insiders and outsiders could be very high in countries with weak corporate governance mechanisms like India. Theoretically it could be argued that there were quite a few signals related to the firms in the IPO context and available to the investors, which could be used by them to assess the quality of firms. Based on cross-sectional data of 1243 IPOs in Indian markets during 1993-95 period, they found that the under-pricing (or realized excess returns), inside equity and pre-public offer firm reservations made for institutions and mutual funds explain the extent of oversubscription across IPOs. The type of agency appraising the project and presence or absence of foreign financial and/or technical collaborators fails to explain the extent of oversubscription across IPOs. In addition, they found that subscription rate rather than realized initial returns as dependent variable sheds more light on the effect of signals in a fixed-price open offer IPO process characterized by listing with considerable lag.

Krishnamurti and Kumar (2002) analyzed 386 IPOs from July 1992 to 1994 to gauge the initial listing performance of Indian IPOs and to determine as to why IPOs were underpriced in India. Results showed that for overall sample the market adjusted return using BSE- Sensex as proxy was 72.34 per cent. Results showed that for par value issues market adjusted rate was 84.68 per cent and for premium issues, it was 35.57 per cent. For premium issues, initial listing returns were inversely proportional to price indicating that underpricing comes down with increasing offer prices. They concluded that the factors like lack of formal mechanism for gauging extent of demand from potential investors, regulatory restrictions on pricing of new firms and large time delay between offer approval date and actual opening date of public issues, responsible for underpricing in India.
Madan (2003) examined the relationship between return on listing and issue price, issue size, age of firm, issue capital listing and was found negative. The relationship was found to be statistically significant. However, relationship between return on listing and foreign equity, issue rating was found to be positive. This study also confirmed that in the long run (five year after listing), there was drastic fall in the return on IPOs returns and returns were found to be negative from the second to the fifth year of listing.

Ghosh (2004) conducted a study for detailed investigation of the boom and slump period in the Indian primary market. The study concentrated on key variables namely, IPO volume and initial return and analyse their nature and interrelation during those two periods. The IPO volume series was auto correlated over the entire period and especially during the boom period. He suggested that over the sample period, the Indian issuers did not depend upon the information content of the initial returns while taking their decision to go public. Amongst the other characteristics that might have influenced the likelihood of IPOs during hot and cold period (e.g. industry classification, age and underpricing of new issues). The study found no significant influence of industry affiliation on the IPOs during the boom period. It documented that more established firms have greater like hood to get listed on the capital market to raise large amounts and underpriced more during the slump period.

Pandey, Ajay (2004) examined that Indian IPO market provide a natural setting for comparing the characteristics of issuers, initial return and long run performance of IPO, coming out with fixed price versus book building route. On a sample of 84 Indian IPOs (20 book building method and 64 fixed price method) from the period 1999 to 2002, found that the fixed price offerings were used by issuers offering large proportion of their capital and raising a small amount of money. In contrast, book building was opted for by issuers offering small proportion of their stock and mobilizing large sums of money.

Jaitly and Sharma (2004) investigated the pricing of new issues in the Indian equity market during the period shortly following the deregulation of the market for new issues. They evaluated the importance of book value and market value estimates in determining issue prices as well as prices on the first day of trading. They also used variables that may reduce uncertainty (age to proxy for awareness of the company)
and information asymmetry (the extent of the promoter’s contribution to the new issue) in order to test whether uncertainty and information asymmetry have an impact on pricing of new issues. Results indicated that pricing of new issues appears to be consistent with rational decision-making. They also examined the extent of underpricing of IPOs in India by calculating the rate of return earned by the subscribers on the first day the shares trade publicly. The first day return is, on average, 72 per cent. They then simulated what this return would have been if the government regulations had still been in place. With government restrictions, the first day’s return would have been 160 per cent.

Ranjan and Madhusoodanan (2004) studied 92 IPOs issued during 1999 and 2003. They studied the impact of book-building mechanism on IPO pricing and found lesser amount of underpricing in book-built issues than fixed-price issues. They also documented less underprice for larger issues and more underprice for smaller issues.

Marisetty and Subrahmanyam (2006) examined the effects of group affiliation on the initial performance of the 2,713 initial public offerings (IPOs) made in India under three different regulatory regimes during the period 1990-2004. The results showed that the average underpricing of group companies was higher than that of standalone companies. In particular, the underpricing was high for companies affiliated with private foreign groups and Indian groups. They supported the certification hypothesis was reinforced when they test on an ex post basis the performance of all IPO, they found that over time group-affiliated companies have a higher probability of survival and success than their stand-alone counterparts. However, the long-term stock market performance of firms in all categories was found to be negative or insignificantly different from zero, statistically. Further, the long–term performance of group companies was somewhat worse than their stand-alone counterparts, they concluded that the higher underpricing of IPOs may be due to investor overreaction to group-affiliated companies’ IPOs, which was then reversed over time.

Mayur and Kumar (2006) examined the determinants of the going public decision of the Indian companies. A probity regression model was used to analyze the influence of fundamental financial data of Indian companies on their going public decision. The size, profitability, age and leverage emerged as the significant
determinants of going public decision of Indian companies. The statistically insignificant relationship between the financing needs and likelihood of an IPO was found in the study.

Bubna and Prabhala (2006) examined the process of bookbuilding as a mechanism for bringing IPOs to the Indian capital market which offered between 1999 and 2005. They found that book building was used by higher quality issues, associated with reduced uncertainty in valuation, and with reduced underpricing of issues. These results were robust to correction for self-selection in the decision to choose book building. They also obtained and analysed data on oversubscription for IPOs. Book building affected oversubscription on both quantity and non-quantity dimensions. Book built IPOs have greater oversubscription yet have lower underpricing. On the no quantity dimension, oversubscription was more strongly related to underpricing in fixed price issues rather than book built issues, suggesting that book building increased the extent of pre-issue information production. Their overall evidences were consistent with theories that suggest a positive role for book building in IPO information production rather than its use as a vehicle for cronyism.

Sehgal and Saini (2007) investigated the initial and long-run performance of 438 IPOs listed in the Bombay Stock Exchange during 1992 to 2006. They found an evidence of market adjusted (adjusted with Bombay Stock Exchange sensitive index) abnormal rate of initial return of 100% for the IPOs on the listing day. In addition, they also found that the level of underprice in India persists for about one and a half year subsequent to listing date.

Kumar (2007) attempted that how to see the IPOs issued through bookbuilding process fare both in short-run as well as in long run. The results indicated that the IPOs still continued to be under-priced as was evidenced by the positive listing day returns and were outperforming the market in the subsequent months almost up to twenty four months. However after two years of listing they generate negative returns. This finding was consistent with the IPO performance literature from the other countries but it was in contrast with the first long run study on IPOs in the long run in India. However he could not be emphatic about his finding in the long run because of a small sample size.
Gopalaswamy (2008) investigated empirically the difference in long run post issue performance of initial public offerings (IPOs) that tapped the Indian primary market through a fixed price offer and book building offer; also to assess the persistence of underperformance between these two routes of offering. The aftermarket performance of the IPOs was empirically assessed based on their market prices and also taking into consideration the other factors associated with the aftermarket performance such as the period of issue (boom/slump), sector in which the industry was operating, etc. The results suggested that there was no difference in the direction of performance of the issues post listing in the short run, however in the long run the issues that tapped the market through the book building route seemed to perform far better than the ones that raised money through a fixed price offer. The results also suggested that the average return irrespective of the route of issue remains the same and this was because of the high initial return of issues that tapped the market with fixed price offers. The paper provided useful information about the IPO markets of India and abroad, related literature and theories or hypotheses concerning methods of issue.

Singh and Sehgal (2008) investigated the possible determinants of underpricing and the long-run performance of 438 Indian initial public offerings (IPOs) listed on the Bombay Stock Exchange during June 1992--March 2001. In this paper mean underpricing has been found to be 99.20 per cent, which was very high if compared with the international evidence. Age of the firm, listing delay at IPO and number of times the issue were subscribed have been found to be the important determinants of underpricing. Indian IPOs do not tend to underperform in the long-run and underpricing has been primarily found to explain the long-run performance.

Khurshed et al. (2008) explained that India has the unique distinction of demonstrating its IPO bookbuilding process to investors. In the context of this backdrop, they analysed the certification role of the newly introduced mechanism of Grading, for book built IPOs in India. They found that, Grading does not affect the underpricing of book built IPOs. They tested other certification mechanisms like reputation of investment banker and presence of Venture Capitalists and found that although reputation of investment banker does not matter in India, the presence of venture capitalists is mildly associated with higher underpricing. They also found that
while grading was meant for the retail investors, it is being made use of by the informed institutional investors in India. They concluded that the transparency of the book building process offered a much stronger signal to the retail investors as compared to that provided by grading.

Kumar (2010) examined the efficiency of IPO issuing mechanisms using a sample of Indian IPOs that tapped the primary market during 2003-07 by taking in to consideration the total costs the issuers have to face i.e., including both direct as well as indirect cost. The sample size of book built issues was 157 IPOs and the size of fixed price offers was 51IPOs. The study found that from a total cost point of view the issuers fare neither better nor worse using either book-building or the fixed price offers. The results also showed that the issue expenses associated with book-building were more than those associated with fixed price offers after controlling for issue size and firm specific characteristics. Further analysis showed that employing US based lead managers do not translate in to higher issue proceeds. Finally, the costs of the services of US lead managers were not significantly different from those of Indian lead managers.

Murthy and Kumar (2010) explained that the process and outcomes of IPO pricing in the Indian capital market with the help of a basic model. With the help of certain cases it attempted to show that concept of underpricing was misleading and needs to be revised. According to this paper, the present view of ‘underpricing’ needs to be termed as ‘overpricing’ by the IPO market. The paper also examined six different strategies of investment. Amongst other testing methods it used a non-parametric test, namely, the sign test. With the help of these tests this showed that IPOs were overpriced in comparison to their true price irrespective of the boom or recession in the market, in the Indian capital market.

Kumar and Vikkraman (2010) explained the fundamental risk and returns involved in investment of IPOs. The performance of the IPOs during the 2004-08 has been studied with the help of secondary data collected from NSE, BSE and other relevant data sources. They assumed that the investments in IPOs were very safe, risk free, and make good returns. The performance of IPOs has been evaluated on the basis of returns on the day of listing and the next day, three months, six months, 12 months, 24 months, 36 months, 48 months and 60 months. It was found from the
research that returns out of IPOs during the short period was very promising. In the recent past several large equity offerings were including those from reputable business houses has failed to reach their price targets. Out of the 285 companies that raised Rs.99, 218 crore money from Investors in India through IPO, many are quoting below their issue price.

Gupta and Samdani (2010) proposed a weighted sentiment-index to measure investors’ representativeness bias in bookbuilding vs. fixed price Initial Public Offerings (IPOs). Sample data (1995 to 2007) span three regimes of fixed price method and book building method IPO pricing mechanisms in India. Consistent with behavioural IPO literature, the results showed that sentiment was driven by IPO cycles. However, contrary to popular perception, sentiment was not driven by IPO pricing mechanism.

Sahoo and Rajib (2010) documented to specify the relationship between post-issue promoter groups' retention and Initial Public Offering (IPO) underpricing. The study also investigated the impact of signalling and financial variables, i.e. offer size, times subscribed, age of the firm, book value, leverage, market volatility and ex-ante uncertainty along with post-issue promoter groups holding on IPO underpricing. On using a sample of 92 IPOs, it found that IPOs were underpriced at an average of 46.55% during 2002 to 2006. They documented a positive relationship between post-issue promoter group holding and IPO underpriced. Results indicated offer size, times subscribed and post-issue promoter group holding are statistically significant in explaining underpriced and also documented positive initial day return for IPOs across all industries, while manufacturing sector IPOs were less underpriced than non-manufacturing sector IPOs.

Deb and Marisitty (2011) examined the IPO grading was an assessment of the quality of initial equity offers. India is the only market in the world that introduced such grading process. They tested the efficiency of this unique certification mechanism with the data of 159 Indian IPOs. They found that IPOs grading decreased IPO underpricing and influenced demand of retail investors. Post listing, highly graded IPOs attract greater liquidity and exhibit lower risk. IPO grading successfully capture firm size, business group affiliation and firm’s quality of corporate
governance. Their findings implied that in emerging markets regulator’s role to signal the quality of an IPO contributes towards the market welfare.

From the literature review the following interference can be made:

1) Short run performance (Underpricing) of the IPOs is an international phenomenon and in the long run the evidence was mixed.

2) Underpricing is in the Indian market is quite high as compared to the international experiences.
REFERENCES


