THE IMPACT OF DEBT IPO ANNOUNCEMENTS ON SHAREHOLDERS' WEALTH: EVIDENCE FROM INDIA

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ABSTRACT

This study examines the effect of debt IPO announcements on shareholders' wealth in an emerging financial market, India, during 1989-2018. Despite the debt market forming an important component of the Indian financial system, there is little empirical evidence related to its implications on different segments of the market. One such unexplored segment is the impact of debt Initial Public Offerings (IPO) on the wealth of shareholders. This paper attempts to answer this important question. Event study methodology has been employed to determine any aberrant change in the stock price following a debt IPO issue. The evidence suggests that debt IPO announcements, on an overall basis, are linked with favourable stock market reaction although the effect is significant only during the post-event period. The findings of the study are aligned with 'pecking order theory' as well as 'signalling theory', wherein the issue of debt is preferred over the issue of equity and is considered as 'good news'. Regression analysis reveals that manufacturing firms and larger firms experience higher positive abnormal returns. Issue amount is correlated negatively to stock returns; the price to book value (P/B) ratio also indicates a significant negative impact during the post-event period. Leverage, on average, seems to have a negative effect (albeit insignificant). Profitability, on an overall basis, has a positive impact on the stock returns.

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***Keywords:** Debt IPO, Event Study Methodology, Shareholders' Wealth.*

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Introduction

In many countries, the bond (credit) market is larger than the equity market. In fact, debt market in developed economies is three times greater than the size of the equity market (Tripathi et al., 2014). Equity being a riskier option, many investors choose to invest/infuse in bonds, based on their risk appetite and liquid assets. A well-developed corporate bond market is essential to enhance the stability of the financial system of a country, facilitate and fulfil credit requirements of companies and alleviate the probability of economic meltdown. A thriving operating debt/bond market provides momentum to all market players and business activities.

The bond market plays a crucial role from the perspective of economic growth. The key role of the debt market emanates for various reasons as follows: (i) Efficient mobilisation and allocation of resources in the economy, (ii) Financing of development related activities of the government, (iii) Transmitting signals for implementing monetary policies, and (iv) Facilitating liquidity management aligned with the overall short-run and long-run objectives (Pathak, 2014).

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Primarily government securities served the purpose of meeting the short-run and long-run financial needs of the government. Nowadays, these instruments have a larger role in internal debt management, monetary management and short-term liquidity management than only to raise debts.

Bond market returns are relatively less volatile *vis-à-vis* equity market returns and in the case of insolvency or liquidation, bondholders, unlike shareholders are the first claimants in the assets of the company. By virtue of this, traditional finance considers bonds to be less risky investments. Therefore, the debt market forms an important source of capital, especially in an emerging economy like India. In fact, it is considered an effective substitute of banking channel.

The Indian corporate debt market is yet to attain the size of those in developed markets. The Indian debt market can be broadly categorised into- government securities market and the corporate bond market, but the size of the latter is merely14% of the total debt market (Tripathi et al., 2014); it reflects the relatively recurrent fiscal deficits as well as the underdeveloped status of the corporate debt market. Indian corporate debt market is relatively less developed *vis-à-vis* other emerging nations owing to corporate entities' chief reliance on banks and financial institutions for their working capital needs (Cao and Garcia-Feijóo, 2021).

The government securities ('G-Sec')/debt issuances are the earliest and the most significant constituent of the bond market in India with regard to total value and number of outstanding securities as well as the value of trade in securities. It has emerged as Asia's third largest government bond market (Cao and Garcia-Feijóo, 2021). The government floats fixed income instruments and borrows through G-Secs. These G-Secs are sovereign securities issued by the Reserve Bank of India (RBI) on behalf of the Government of India. Indian market is exceedingly dependent upon the government securities for meeting its fund requirements. This market makes available the yardstick for ascertaining the interest rates at macro level by way of yield on these treasury securities; the interest rate, thus, determined indicates virtually the riskless interest rate in the market.

Although the debt market forms an important component of the Indian financial system, there is little empirical evidence related to its implications on different segments of the market. One such unexplored segment is the impact of debt IPO offerings on the wealth of shareholders. This paper attempts to answer this important question. The study further examines the factors affecting the performance of debt offering announcement in the Indian context. To the best of our knowledge, none of the prior studies have attempted to examine this area despite the relevance of debt markets in the financial system.

One can question as to when do firms decide to make debt offerings. Booth et al. (2013) showed that it was related to the stage of the firm in its lifecycle as well as the availability of opportunistic timing. During the initial stages of the firm lifecycle, it generally has immense investment opportunities, allowing for rapid growth, enabling these firms to reinvest the profit and raise additional capital. Here, firm may resort to issue of equity initial public offering (IPO). As these firms mature, they start to generate healthy cash flows, so now the firms can take on additional debt, though it might be available only through private lenders. However, in later maturity stage, these firms often access the public debt market through a debt IPO. Debt IPO carry less rigorous restrictions than those offered by private lenders. In addition, these can be a way for boards to rein in senior executives who may be tempted to over-invest by drawing too heavily on a firm's cash flow. Therefore, an entity's cry out for issue of fixed income securities in public debt markets is a function of both life cycle influence and opportunistic timing.

Clifford W. Smith (1986) argued that the announcement of debt is not associated with any significant stock price effect. As reported by the Smith (1986), by issuing an equity, managers are choosing to share risk and return with the outsiders, hence the negative average abnormal returns as seen in case of Mikkelson and Partch (1986), Asquith and Mullins (1986) and Masulis and Korwar (1986). The average abnormal return reported over for equity issues for the above-mentioned studies were significantly negative. Details of their finding have been reported in the literature section. While on the other hand, by issuing debt, managers don't share any kind of information with the outsider. This notion can be well understood from the results reported by Eckbo (1986) and Mikkelson and Partch (1986) obtaining average abnormal returns which were not generally significantly different from zero. Although Dann and Mikkelson (1984) documented a negative average abnormal return for a two-day announcement period of -0.37 with a t-statistics of -1.76 at 0.10 level. The fact that managers are choosing to avoid sharing risk and return with the investors, hence they are marked by a less negative signal of a firm's value.

In case of a hybrid, like a convertible bonds and exchangeable bonds, they contain both debt and equity components. So, applying the argument made in the last paragraph, we can make a calculated guess that market response to convertible debt offerings is typically not positive, yet better than average response to equity offers, since they a contain a debt part. Till now, a large number of researchers has assessed the impact of announcing public offers of various kinds of securities including Mikkelson and Partch (1986) who had analysed the valuation effects of public announcement of equity offer. Similar study analysisng the impact of debt offering had been conducted by Eckbo (1986), of convertible securities by Dann and Mikkelson (1984) and of exchangeable debts. For some market it was positive to some degree while for other, debt offering announcements were perceived with negative impact on the shareholders' wealth.

Most of the studies in U.S have reported a negative and significant market response to the announcements of bonds (especially convertible ones) and they align with the models proposed by Myers and Majluf (1984), although there are some inconsistencies in announcement effects in other countries. Studies in the U.S. include Dann and Mikkelson (1984), Mikkelson and Partch (1986), Billingsley et al. (1990) which reported significant negative abnormal returns. Eckbo (1986), Janjigian (1987), Hansen and Crutchley (1990), Lewis, Rogalski and Seward (1999) also echoed the same negative implication of a convertible issue announcement in the U.S. However, non-U. S countries portrayed kind of a mixed result. In this context, we can use the work Kang and Stulz (1996), who did a similar study in Japan, and reported a positive stock price reaction to convertible bond announcement. De Roon and Veld (1998), conducted a study to analyze the announcement effects in Netherlands, and the results obtained portrayed a positive effect on the stock prices of the issuing firm.

However, it is not as if all non-U.S. countries showed a positive effect to announcement of debt offers. Abhyankar and Dunning (1999) examined the valuation impact of issuing convertible bonds and convertible preferred stock in the U.K market and reported a significant negative implication on the shareholders' wealth. Barlacu (2000) reported a negative outcome to announcement of new issues which was conducted the French market. Another previous study carried out by Suchard (2007) to examine the impact of rights issues of convertible debt, portrayed a negative effect on the shareholders' wealth upon convertible bond announcement. So, it is sufficing to say that every market reacts in different way to the announcement of such debt offerings.

Literature Review

In general, the most commonly used theory for security issuance is information asymmetry. Information asymmetry exists when one party to the transaction has more or better information than the other transacting party. With respect to the issue at hand, there exists information asymmetry between the management of the bond issuing company and the investors. It is generally perceived that managers of the issuing company are better informed regarding the net present value (NPV) as well as the market value of firm; investors either have no or lesser information of all these about the company. Empirical evidence have suggested that larger the extent of information asymmetery between internal management and external investors, the larger is the likelihood of market reponse to the announcement of financing decision (Khan and Jain, 2019). Essentially, information asymmetry significantly affects the financing structure of a business entity.The decision of a firm to issue debt as a means of financing can be, to some extent, explained by two capital structure theories premised on information asymmetry, namely, 'pecking order theory' and 'signalling theory'.

Signalling theory (Ross, 1977) states that a firms' capital structure decision sends some informational signals to the market, if internal managers are better informed *vis-à-vis* outside investrors. Accordingly, issue of debt securities is considered a 'good signal' and indicates management's confidence in the firm's prospects. On the other hand, management would prefer to issue overvalued security, therefore, issue of securities signals 'bad news'.

Myers and Majluf (1984) proposed the 'pecking order theory' which assimilates the information asymmetry in association to the management of the issuing firm and the investors. The 'pecking order theory' postulates that the cost of financing is directly proportional to information asymmetry. Major sources of funds for financing any form of business are retained earnings, bonds and owner's contribution. This theory maintains that businesses adhere to a hierarchy of financing and prefer internal capital financing when available, followed by debt and raising equity as a 'last resort'.

Myers and Majluf (1984) assume that the capital markets show a semi-strong form of efficiency and are perfect. The authors argue that managers should issue stocks when they are overvalued and issue debt when the firm is undervalued. Further, they state that issuance of particular type of security

depends upon the manager's expectation of the outcome of the project undertaken; corporate managers always act in the best interest of shareholders. So, if a firm is going to make a profit from a particular project, thereby increasing the firm's value, managers would generally tend to finance by means of internal financing or issuing debts. reason being- the manager not want to share the profits with the new investors. However, if there exists any probability of increasing risk, these firms tend to issue equity shares so as to languish the risk with the new investors. They opined that companies usually offer stocks of shares when they anticipate the occurrence of a 'bad state'. The phenomena wherein the issuance of type of security actually convey about the risk being inflicted on the irm, serves as a signal to the market.

Myers and Majluf (1984) have suggested that market response to a company's decision to resort to outside sources of funds is directly proportional to the degree of uncertainty associated with the offering. In other words, with more risk associated with the issuance of a particular security, more is the negative valuation effect associated with it. Asquith and Mullins (1986) provided evidence to support this theory, when he reported that announcement of new equity issues resulted, on an average, 3 per cent abnormal drop in stock returns.

Myers and Majluf (1984)'s pecking order theory aligns with the findings of Masulis (1983) who reported that by decreasing the debt component in a firm's capital structure (reducing the leverage) was associated with negative abnormal returns while raising the leverage resulted in positive abnormal return.

Eckbo et al. (2007) examined the valuation effects of seasoned security offering and the empirical findings are consistent with adverse selection argument which is incorporated within information asymmetry. In general, equity-offering announcement experience the most negatively significant stock price reaction while that for a safe debt would be less negative or even positive.

Steins (1992) provided an alternate argument for a firm's use of debt offering (convertibles). His theory was based on the notion that issuance of different type of security depends on the nature of the issuing firms. He categorized the firms into bad, medium and good. The author argues that a bad firm under no circumstance will issue any convertible because there is a probability, they will not be able to force conversion when the conversion value of the bond falls leaving a debt burden. As for the good firm, they bear no expected costs of distress with long-term debt, so they can issue debts with no likelihood of risk. But when it comes to the medium types, it will only issue a security if it views it as fairly priced, hence this type of firm carefully evaluates the choice of issue of convertible because otherwise they can attract negative earnings and can likely compromise the future issue of debts and equity. Hence, Stein reports that the choice of issuing convertibles is heavily influenced by financial distress and the expected earnings of that particular firm.

Most of the previous studies were based on either convertibles/exchangeable or equity issues, only a handful of studies were conducted which investigated the announcement effects of straight debts.

One of the earliest literatures concerning the announcement effects of security issues can be traced back to Dann and Mikkelson (1984). Using a final sample of 132 public issue announcement (initial sample consisted of 537 offerings) over 1970-1979, they provided evidence on the valuation effects of convertible issuance. They noted that convertible bond announcements were backed by significant negative stock price reaction on the announcement as well as on the day of the issuance. Straight debt issues, on the other hand, generated marginally significant (at 0.1 per cent level) negative abnormal returns only on the day of announcement and no abnormal returns on issuance day.

Mikkelson and Partch (1986) examined the stock price effects of security issues and the nature of information inferred by investors from offering announcements. The study was conducted in the U.S. market for the period 1972-1982 which consisted of 221 firms as the final sample. Final results indicated a statistically significant negative reaction to common equity and convertible debt offerings. On the other hand, stock market response to the offer of preference shares, non-convertible debentures, private placement of debentures and term loans had been negligible and statistically insignificant. The results of cross-sectional analysis revealed that stock prices were not influenced by the: (i) quality rating of debt, (ii) relative net amount of debt financing provided by the offering, or (iii) relative size of the offering. Finally, the most robust relationship had been empirically observed between the stock price and the kind of security issued. As mentioned earlier, issue of common equity and convertible bonds did not augur well for the valuation of the firm.

Eckbo (1986) provided a similar kind of insight when he examined corporate debt offers on stock prices. His analysis consisted of 723 offerings made by 216 US firms during the period of 1964-1981. The results were consistent with the prior findings that convertible bond announcements are

related to negative impact on the shareholder's wealth. He also concluded that straight debt's impact on stock price, on an average, was associated with zero or a non-positive effect on the market price of the issuer. From regression analysis, it was evident that there was no statistically significant relation between the valuation effect of debt offering and (i) offer size, (ii) increase in the firm's debt related tax shield, (iii) bond rating, (iv) offering method.

Billingsley et al. (1990) analyzed the U.S. capital market effects of the announcements as well the on the issuance of debts with warrants and convertible bonds. Their sample consisted of public offering made in the period 1971-1986. Their findings showed that neither announcement nor the issuance of warranted debts was associated with any significant stock price change while convertible bonds' announcement as well as their issuance was linked with a significant negative reaction. These findings align with those of Dann and Mikkelson (1984).

Long and Sefcik (1990) in their attempt to compare the attributes of non-convertible and convertible debt offered with warrants, observed that both issues were linked with a significant negative reaction. The two-day cumulative abnormal return reported for convertible bond announcement was -0.61per cent and -1.59 per cent for straight bonds and warrant, both values being significant.

There also exist a handful of literature concerning the announcement effect of exchangeable debts. One such study was conducted by Ghosh et al. (1990) which involved a total of 36 exchangeable and 662 convertibles issued during the period 1969-1987. The research concluded that even the announcement of exchangeable perceived unfavourably with regard to its effect on shareholder's wealth. For exchangeable, mean above-normal return was -1.11% (z-statistic = -1.99). As for convertible, an excess return of -1.39% was reported which was highly significant with a z statistic =-11.4. These results resonate the results obtained by Dann and Mikkelson (1984), Mikkelson and Partch (1986) and Eckbo (1986).

Brad M. Barber (1993) performed a similar study to analyze the antecedents for offering convertible bonds and their impact on the firm valuation using a sample of 37 convertible bonds issues in the U.S. capital market during 1970-1987. The issuers experienced an unfavourable market response with negative average abnormal returns (AAR) of -1.10% (t = -2.30) during two-day [0,1] event window wherein approximately three-fourths (73%) issuers suffered non-positive returns over two-day event period. Based on the findings, the authors postulated that companies largely exploited convertible debt offer as their divestment plan and negative returns on the announcement of convertible debt offers perhaps signified low probability of acquired-acquiring relationship between the issuer and convert firm.

Other U.S. based research on the announcement effects of such securities yielded similar negative impact including the works of Hansen and Crutchley (1990), Davidson et. al (1995), and Lewis et. al (1999).

Hansen and Crutchley (1990) found that common stock and convertibles were linked with significant negative cumulative abnormal return of -3.65% and -1.45% respectively over a 2-day period. And as for straight debt, it had no significant correlation with the stock price with a CAR value of 0.11% over a 2-day period [-1.0]. Negative abnormal returns were also reported by Davidson et. al (1995) with a significant CAR value of -0.014 with a z statistic of 5.47 for the [-1,0] period.

Lewis et. al (1999) also reported a similar trend with an excess return of -1.51% during the announcement period. However, 11 months prior to the issue of convertible debentures, these companies had experienced statistically significant non-negative returns. Moreover, their capital market performance before the announcement of issue had not only been outstandingly superior to the companies offering plain vanilla bond but also leveled the performance of equity share issuers. The pecking-order proposition (Myers and Majluf, 1984) also endorses leveraging equity-based financial instruments following the positive abnormal returns.

Datta et. al (1997) examined the initial and after equity performance of non-convertible corporate debt IPO in the U.S. market. It was observed that there was an insignificant excess return on day one of 0.15%; calculated values of both parametric z-test (0.67) and non-parametric sign test (-1.41) turned out to be greater than their critical values. The issue of under-pricing had been noted to be insignificant in public offers of debentures as compared to public offer of equity share primarily due to availability of same information to all investors as predicted by IPO models. however, the findings further indicated that the market response to debeture IPO aligned with that of stock IPO with respect to the relationship between under-pricing and the quality of merchant bankers.

Cai and Lee (2013) carried out a similar study to analyse the impact of initial public offer of debentures on the market valuation of the issuer company during 1970-2010. They had an overall sample of 1207 debt IPOs. They used event study methodology (Brown and Warner, 1985) for the analysis where they selected the event date (day 0) as the day of debt IPO announcement and the market model for estimating the normal returns. Cumulative avergae abnormal return (CAAR) during 3-day [-1, +1] event window was found to be -0.24% and for 2-day [-1, 0] window, it was -0.17%. The findings of this study were in congruence with that of a study by Datta et al. (2000). It also revealed that bank financing has shorter maturity as compared to corporate bonds, wherein 44% of the corporate debt offering in the sample had matruity period of 10 years or more followed by 50% bonds with 5-10 years bearing and only 6% maturing in 5 or less years.

This results again echoed with the findings of Datta et al. (2000). This research show that there was a significant negative risk-adjusted cumulative abnormal returns during the announcement period. Myers and Majluf's (1984) model of 'adverse selection' aligned with the findings such that unfavourable market response to public debt offering was owing to the degree of risk assoiciated with issued securities rated as high-yield debt. However, the market perceived public offering of low-risk rated bond optimistically, thereby, creating wealth for the shareholders of the issuer company. Irrespective of the bond ratings, the findings indicated significant non-negative returns for bond effected during economic recession and aligned with the study of Bernanke and Gertler (1989).

The notion can be easily grasped that in general the U.S. market reaction to convertible or exchangeable bond announcement is significantly negative as opposed to the straight bonds which do not seem to have any kind of significant effect on the stock price. But this so derived trend is not universal.

Kang and Stulz (1996) investigated the public offer of securities in the primary market with respect to its informational content as well as to figure out how Japanese corporate is different from the rest of the world. For this purpose, the study used 875 public offers of securities announced during the time spanning from January 1, 1985 - May 31, 1991, in the Japanese primary market. The analysis resulted in non-negative (*albeit* marginally) cumulative abnormal returns (CAR) of 0.45% (p<0.10, t-stat = 1.73) in three-day event period around the announcement day of equity issue. On the other hand, offering convertible bonds yielded significant and non-negative over and above the normal returns to the extent of 1.05%; abnormal returns on equity issue (0.45%) are outweighed by the returns on debt offer (1.05%) on the day of public offer announcement. Further, the size of the company had negative relation with abnormal returns as revealed by regression methodology, thereby, indicating that large companies *vis-à-vis* small companies in Japan experience, by and large, similar abnormal returns as those experienced by their counterparts in U.S. These empirical findings aligned with the viewpoint that managers in Japan and America deliberated differently and had diverse objectives with regard to their decision on equity offer. Many seized this discrepancy on a positive note, suggesting that executives in Japan did not need to bother in short-run rather they ought to target the long-term for creating wealth for their equity-holders.

Roon and Vled (1998) analysed the announcement effects in the Dutch Market and observed positive (*albeit* insignificant) above-normal returns in the case of convertible debt whereas returns were significantly positive for warranted bonds. Kang and Stulz (1996) reported similar results in respect of Japanese hybrid bonds. However, U.S. firms responded in a diametrically opposite manner.

Abhyankar and Dunning (1999) studied the wealth effect following the announcement of public offer in the U.K. market. The period of study was from 1986 to 1996 with a final sample 129 convertible bond issues (66 domestic issues and 63 euro-convertible issues). Finding over two-day (-1, 0) observation period showed that the valuation effect turned out to be unfavourable as well as statistically robust such that it was -1.21% in the case of non-straight debts, -1.02% for non-straight preferred stock, and -2.65% for non-straight capital debts. The unfavourable market response to the announcement of non-straight bonds was relatively less severe for the U.K. companies (-1.20%) than for the US-based companies (-2.00 %); the results were in marked contrast with those reported by Davidson et al. (1993) in respect of U.S. companies.

Radu Burlacu (2000) noted similar findings in the French market involving a total 193 convertible bond issues listed with the Paris stock exchange between January 1981 and February 1998. The author reported a significantly excess return of -0.23 per cent for [-1, 0] event window which was consistent with the U.S. market.

Using a sample of listed firms from Taiwan, Chang et al. (2004) investigated the reasons behind a firm's issuance of convertible debentures and their subsequent effects on the wealth of the shareholders. This study was based on 109 announcements by 86 companies over the period from 1990-1999. The evidence indicated that representative companies earned statistically significant and favourable (non-negative) above-normal gains on the event day, a day after the event announcement as well as during 3 [-1, 1] days observation window; average abnormal returns (AAR) in 3 [-1, 1] days event period was noted to be 0.83% ($p < 0.05$), wherein 55% sample events fared well in favour of the issuers. The results were in concurrence with the research study by Kang and Stulz (1996) designed in Japan, but stood in marked contrast with the findings of similar studies conducted in the U.S. and the U.K. causing unfavourable and statistically robust market response (Dann and Mikkelson, 1984; Eckbo, 1986; Mikkelson and Partch, 1986; Hansen and Crutchley, 1990; Kim and Stulz, 1992; Davidson et al., 1995; Abhyankar and Dunning, 1999).

Using the data from corporates in the Switzerland and the Germany, Ammann (2006) investigated the impact of public offering of convertible and exchangeable debt. For the purpose, he analysed 55 and 28 issues of convertibles and 28 exchangeable respectively from Jan 1996 - May 2003. The analysis indicate that the announcement effects of convertible bonds and exchangeable bonds are associated with significantly negative abnormal returns. Further, companies in Germany responded rather strongly vis-à-vis their counterparts in the Switzerland perhaps owing to institutional differences.

Studies in the Australian market involves the work of Jo-Ann Suchard (2007); this research aimed at investigating the influence of offering convertible bonds through rights issue on the valuation of issuer. The study analysed 58 convertible bond offers announced by 56 Australian companies over January 1980 - December 2002. The announcement of convertible bond issue produced significant non-positive reaction of the shareholders, favourable growth before the announcemnet of issue, but unfavourable response after the announcement as was noted in the U.S. and the U.K. markets. The cumulative abnormal returns (CARs) during 4 [0, +3] days event window was −1.32% ($p < 0.10$) and over 7 [−3, +3] days were noted to be −1.81% ($p < 0.05$). Following the announcement of convertible bond, companies in Australia suffered a descending trend in returns with −0.86% over 13[+2, +10] days period. The findings of the study with respect to the issue of convertible bonds confirmed the 'information asymmetry proposition' (as measured by 'firm risk', 'stockholder participation' and 'institutional holding') and the 'agency cost proposition' (measured by 'underwriting cost').

Jean Pierre Fenech (2008) examined the announcement effects in Australia, but found result contradicting the finding of Jo-Ann Suchard (2007). CAR over windows [0, +3] and [-3, +3] are 2.85 and 0.29. Day 0 reported a significant positive of CAR of 1.96 per cent. When the event is extended beyond the standard window of [0, +1] CAR continues to record a positive announcement effect which is in contrast to the U.S., U.K. and past studies in Australia. The author suggests that the changes within the institutional environment brought about such market behavior. Suchard's (2007) dataset fails to capture any institutional change since the dataset stops at 2002.

Dutordoir et al. (2016) have examined the wealth effects of announcement of convertible bonds in the Japanese market. Their data set consists of 3378 convertibles issued during 1982 to 2012. Relatively less negative stock price reaction has been noted for Japanese convertibles *vis-à-vis* convertibles issued in the U.S. and other developed countries. Further, they have observed that more favourable announcement effects for Japanese convertibles are driven by their stated uses of proceeds. Japanese convertibles more often include capital expenditure as an intended use, while U.S. firms tend to mention general purposes to motivate their offering. These findings in the Japanese Market align with the findings of Kang and Stulz (1996).

Almost all the studies and researches conducted with respect to the announcement effects of security issues are based on developed nations like U.S., U.K., Japan hence, these studies primarily deal with convertibles and exchangeable. Thus, there is a dearth of literature on the issue of straight bonds (non-convertible debentures), predominantly issued in India. At present, a large number of researches on analysing the impact of raising funds through debt are in the context of advances economies. Findings of these studies are difficult to generalize for the Indian market, given the significant differences between the advanced and the developing economies. To say, it is relatively economical in advanced economies vis-à-vis the developing ones to raise funds through debt issue, thereby generating unfavourable market response in developing economies. Bond charges indicate agency costs between equity and debt holders, which sometimes creates 'moral hazard' for equity-holders. The existence of imperfect regulatory environment to protect the interests of bond holders may even have magnified impact. Therefore, there is not much evidence backing up the announcement effect in a developing country like India.

Data Description

        Our initial data sample comprised of all the debt IPOs made during the period April 1989- December 2017 with a total of 266 debt offerings extracted from Prime Database. Bombay Stock Exchange (BSE) and National Stock Exchange (NSE) websites constitute the source of historical prices of firms. Out of 266 debt offers, about 186 offerings have maturity of less than 10 years, 72 have maturity between 10-15 years while only eight offers have maturity higher than 15 years. Table 1 contains the descriptive statistics of the initial sample on debt offerings from 1989 through 2017.

Table 1: Descriptive Statistics of all Debt Offerings made in the Period 1989-2017

Year	Total Debt Amount		Maturity of the Securities			Total Number of Issues
	INR (Rs. Lacs)	USD (mn)	Less than 10 years	10 to 15 years	More than 15 years	
1989	24294	145.48	2	2	0	4
1990	10250	59.48	8	0	0	8
1991	18951.36	100.23	3	1	0	4
1992	69833.99	262.5	2	0	2	4
1993	272444.34	865.79	4	2	0	6
1994	28570.85	90.87	1	0	0	1
1995	69046.4	197.78	1	0	0	1
1996	671480	1891.12	8	2	4	14
1997	289412.8	796.5	3	1	0	4
1998	652338.3	1573.59	10	0	0	10
1999	563958.45	1314.76	9	0	1	10
2000	349578.7	774.37	9	0	0	9
2001	431218	915.64	10	0	0	10
2002	454947.2	937.07	9	0	0	9
2003	528374.15	1123.91	8	1	0	9
2004	238313.55	526.34	2	0	0	2
2005	409485.2	935.25	5	0	0	5
2007	100000	251.7	1	0	0	1
2009	349999.96	718.66	3	0	0	3
2010	272725.15	605.46	2	3	0	5
2011	2726774.82	5513.09	7	12	0	19
2012	2336539.57	4540.55	7	9	0	16
2013	3464250.72	5768.22	12	20	0	32
2014	2421622.69	3938.7	24	8	1	33
2015	2154748.45	3270.21	14	5	0	19
2016	4182656.31	6212.07	13	6	0	19
2017	639732.24	974.81	9	0	0	9
					Total	266

        Data obtained from the Prime database consists solely of straight debt offering or non-convertible debentures (NCD). Of all the NCD offered, 52 are tax-free, 7 are capital gains, 85 are infrastructure and a striking 172 are straight NCDs. Based on the issuer type, it has been observed that the all-India financial institutions and banks/subsidiaries have made the highest contribution in terms of debt issuance with 54.13% of the total issues (144 debt offerings) followed by private sector with 102 offerings, public sector undertakings with 14 issues and 6 offerings by state-level undertakings.

        As the present study focuses on IPO issues, only the first issue made by a specific firm has been considered; any other subsequent issues made by the same firm has been eliminated. In addition, the event study method requires considering a clean period devoid of confounding events (McWilliams and Siegel 1997, Jain et al., 2017, 2018a, 2018b, 2019). Confounding events such as announcement of financial results, final and interim dividends, credit rating announcements, merger and acquisition announcements tend to influence the stock prices. Hence taking into account all the above-mentioned factors resulted in a sample size of 79 issues. Further, out of these 79 issues, accounting for availability of sufficient data to carry out the event analysis for the specified estimation period and event window, 31 initial debt offerings made in the period 1989- 2018 constitute the final sample for study.

Event Study Methodology

Event study methodology (McWilliams and Siegel, 1997) has been employed to determine any aberrant change in the stock price following a debt IPO issue. The versatile nature of event study method has led to its universal application in a wide range of analysis of economic events ranging from company mergers and acquisitions, issue of bonds and stocks, insider trading to macroeconomic variables change (such as trade deficit).

The standard approach is based on the estimation of a market model (Mackinlay, 1999) for each firm and then calculating abnormal returns. These abnormal returns are assumed to reflect the stock market's reaction to the arrival of new information. The rate of return on the share price of firm i on day t is expressed as:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where:

R_{it} = the rate of return on the share price of firm i on day t,

R_{mt} = The rate of return on a market portfolio of stocks (such as BSE 200 in our case) on day t,

α_i = the intercept term,

β_i = the systematic risk of stock,

ε_{it} = the error term, with $E(\varepsilon it) = 0$.

The daily abnormal returns (AR) are calculated for the ith firm using the following equation:

$$AR_{it} = R_{it} - (\alpha_i + \beta_i R_{mt} + \varepsilon_{it}) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (2)$$

The abnormal returns (AR_{it}) represent the excess returns earned by the firm after adjusting for the "normal" returns. Any significant difference is considered an abnormal, or excess, return. Here the parameters α_i and β_i are OLS estimates obtained from the regression of R_{it} over R_{mt} over an estimation period of 120 to 21 days prior to the event.

First, the average abnormal returns are the sample mean of the abnormal return calculated as:

$$AAR_t = \frac{1}{N}\sum_{i=1}^{n} ARit \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3)$$

Cumulating abnormal returns across time yields the cumulative abnormal return measure given by:

$$CAR_i (t_1, t_2) = \sum_{t2}^{t1} ARit \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (4)$$

The cumulative abnormal returns (CAR) have been estimated for an event window of [-20, 20]. We have also calculated the CARs for [-20, 0], [0, +20], [+10, +20], [0, 0], [-1, +1] and [-1, 0] to check for any change in the stock prices of the issuing firm during post-announcement and pre-announcement period.

Statistical test of abnormal returns is commonly based on the cross-sectional average of each measure. For cumulative abnormal returns the cross-sectional average is:

$$CAAR_{(t1,t2)} = \frac{1}{N}\sum_{t1}^{t2} CARi(t1, t2) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (5)$$

Regression Analysis

To identify the determinants of the abnormal returns, multivariate regression analysis is performed. The ordinary least square (OLS) regression employed is as follows:

$$CAR_i = \alpha + \beta_{i1}(SIZE) + \beta_{i2}(P/B) + \beta_{i3}(LN\ (ISSUE\ AMOUNT)) + \beta_{i4}(LEVERAGE) + \beta_{i5}(LN(AGE)) + \beta_{i6}(PBIT/SALES) + \beta_{i7}(Industry) + \varepsilon_i \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (6)$$

Table 2 provides a description of the variables used in regression model.

Table 2: Description of Variables Used

Variable	Description
CAR$_i$	It is the abnormal returns reported for the following windows: [0, 0]; [-20, 20]; [-20, 0]; [0, 20]; [10, 20]; [-1, 1] and [-1, 0].
SIZE	Natural logarithm of the total assets (T.A.) of the issuing firm.
P/B	Price to book (P/B) ratio. It is obtained by dividing the stock's market value by its book value.
Ln(Issue Amount)	Natural logarithm of the amount of debt offered in INR crore.
Leverage	Ratio of the debt to the equity

Ln(Age)	Natural logarithm of age obtained as the difference between the year of issuance of the debt IPO and the year of incorporation.
PBIT/Sales	Profit before interest and taxes (PBIT) by gross sales in the previous financial year (with respect to the date of issuance).
Industry	Dummy variable that takes value of 1 for manufacturing firms and 0 otherwise.

Results and Discussion

The following paragraphs present the results obtained from the event study methodology and multiple regression. Table 3 presents the AAR values on each day in the event window under consideration. The overall performance indicates that the debt IPO announcements had a positive impact on the stock prices.

Table 3: Average Abnormal Returns (AAR) for 41-days Event Window

Day	AAR (%)	Day	AAR (%)
-20	-0.23	1	0.83
-19	-0.08	2	0.49
-18	-0.39	3	0.54
-17	0.28	4	0.85
-16	0.49	5	-0.01
-15	0.59	6	-0.19
-14	0.27	7	-0.27
-13	1.06	8	0.12
-12	1.19	9	0.14
-11	1.48	10	-0.01
-10	2.01	11	0.52
-9	2.05	12	0.19
-8	1.64	13	0.23
-7	1.66	14	0.86
-6	1.02	15	1.47
-5	1.05	16	1.42
-4	1	17	1.12
-3	0.1	18	1.81
-2	-0.11	19	2.98
-1	0.17	20	3.35
0	0.53		

Table 4: CAAR Values for all Sub-Windows

Window	CAAR (%)	Pos:Neg	t-Test	Prob.	Sign Test	Prob.
[-20, 20]	3.35	16:14	1.19	0.23	-0.28	0.78
[-20, 0]	0.53	15:15	0.27	0.79	-0.64	0.52
[10, 20]	3.22	18:12	2.21	0.03	0.46	0.65
[-1, 1]	0.94	16:14	1.23	0.22	-0.28	0.78
[-1, 0]	0.64	16:14	1.03	0.30	-0.28	0.78
[0, 20]	3.18**	18:12	1.58	0.11	0.46	0.65
[0, 0]	0.36	15:15	0.83	0.41	-0.64	0.52
*Significant at 10%, **Significant at 5%, *** Significant at 1%						

Analysing the CAAR on the event day indicates an average return of 0.36 per cent which is quite small but positive nonetheless (Table 4). Post-announcement window also experienced positive effect of 3.18 per cent though insignificant. It is interesting to note that upon testing the CAAR values on other post-event window, we found that for the window [10, 20] is indeed characterized by a significant positive return of 3.32 per cent.

Table 5: CAAR Values for all Sub-windows

Window	CAAR (%)	Pos:Neg	t-Test	Prob.	Sign Test	Prob.
[-20, 20]	3.35	16:14	1.19	0.23	-0.28	0.78
[-20, 0]	0.53	15:15	0.27	0.79	-0.64	0.52
[10, 20]	3.22	18:12	2.21	0.03	0.46	0.65
[-1, 1]	0.94	16:14	1.23	0.22	-0.28	0.78
[-1, 0]	0.64	16:14	1.03	0.3	-0.28	0.78
[0, 20]	3.18**	18:12	1.58	0.11	0.46	0.65
[0, 0]	0.36	15:15	0.83	0.41	-0.64	0.52
*Significant at 10%, **Significant at 5%, *** Significant at 1%						

The results align with the findings of Mikkelon and Partch (1986) where a small excess return of 0.06 per cent was reported for a two-day window with 48 per cent of the sample giving a positive CAR. Our results are also corroborated by the findings of Hansen and Crutchley (1990) where they reported an excess return of 0.11 per cent *albeit* insignificant. On the contrary, our results contradict the findings of Dann and Mikkelson (1984) where they report an insignificant but negative excess return for straight bonds for the 2-day announcement period. The findings of the study are in convergence with the propositions of 'pecking order theory' as well as 'signalling theory', wherein issue of debt is preferred over issue of equity and are considered as 'good news'. To perform multivariate regression, four models were constructed with the CAAR values of the four window namely [-20, 20], [-20, 0], [0, 20] and [0, 0] as the dependent variables. The results of the regressions are reported in Table 6.

Based on the results obtained for model 1, P/B ratio and PBIT/Sales have a significant positive impact on the stock prices. A higher P/B ratio implies higher growth potential i.e. investors are optimistic about the future growth potential hence higher P/B ratio is linked with a positive stock price reaction. Same can hold true for the latter characteristic; a firm generating higher operating profits will have the potential to service debt better than the ones with lower operating profits, hence instilling confidence among the investors. Thus, a higher operating profit margin is expected to be linked with a positive stock price reaction. PBIT/Sales on an overall basis is linked to a positive coefficient throughout the other four models as well. For model 2, none of the firm characteristics showed any significant relation even though all (but leverage) are negatively associated, which is expected since by increasing the leverage we are essentially increasing the debt component in the capital structure of the firm, so more will be the interest payment, hence will impact the stock prices in a detrimental manner. For model 3, the P/B again is seen to have a positive and significant effect on the stock value corroborating the results of model 1. Based on model 4, we have Industry dummy, size (lnTA), P/B ratio and ln (Issue_Amt) showing significant impact. Industry dummy showing a significant positive relation reveals that a manufacturing firm's stock is expected to go high in value following a debt IPO announcement. Positive relation of the SIZE of the firm shows that the bigger the firm is, more positive is the excess return earned during post-announcement period. However, a significant negative P/B value does contradict the findings of our previous two models. The coefficient of Ln (Issue Amount) is negative and significant indicating bigger debt issues would lead to more negative abnormal returns following the announcement. One possible explanation could be that, debt issues can essentially change the capital structure of a firm and hence is anticipated to affect the firm at a significant level.

Table 6: Factors affecting CARs in debt IPO (1989-2017)

	Model 1 [0,0]			Model 2 [-20,20]			Model 3 [-20,0]			Model 4 [0,20]		
	Coeff.	t-Statistic	Prob.	Coeff.	t-Statistic	Prob.	Coeff.	t-Statistic	Prob.	Coeff.	t-Statistic	Prob.
Constant	-0.0067	-0.1574	0.8789	-0.1803	-0.3317	0.7717	0.0916	0.486	0.6442	-0.4004	-2.5597	0.0627
Industry	0.0018	0.1177	0.9092	0.1948	1.2194	0.347	-0.0325	-0.4668	0.6571	0.2444**	4.0006	0.0161
Size(LnTA)	-0.001	-0.15	0.8845	0.0036	0.0171	0.9879	-0.041	-1.3302	0.2318	0.0877**	3.0849	0.0368
P/B	0.0172*	1.8873	0.0958	0.0781	0.1791	0.8743	0.0987*	2.3568	0.0565	-0.1108*	-2.1504	0.0979
Ln(Issue Amt)	-0.0023	-0.3206	0.7567	0.0017	0.0088	0.9938	0.0261	0.7596	0.4763	-0.0669	-2.4401	0.0712
D/E	-0.0019	-0.8867	0.4011	-0.0222	-0.407	0.7234	-0.0152	-1.5387	0.1748	0.001	0.0908	0.932
Ln(AGE)	-0.0038	-0.4902	0.6371	0.0163	0.2529	0.824	0.0009	0.0256	0.9804	0.0061	0.2278	0.831
PBIT/Sales	0.0387*	1.9605	0.0856	0.0427	0.1576	0.8892	0.1323	1.4415	0.1995	0.004	0.0375	0.9719
R²	0.5797			0.6817			0.5855			0.8648		
Adj. R²	0.212			-0.4325			0.102			0.6283		
AIC	-5.0105			-1.2205			-2.0707			-2.6464		

*Significant at 10%, **Significant at 5%, *** Significant at 1%

Concluding Observations

The study examines the announcement effects of debt IPO in India. We analysed a sample consisting initially of 266 offering issued during the period April 1989-January 2018. From the initial sample, after removing any subsequent offering made by the same firms and thereafter applying the required qualifiers and attending to the availability of sufficient data, we have a final sample with 30 debt issues. We adopt the Efficient Market Hypothesis proposed by Eugene Fama. Since the study is in Indian context so we incorporate the semi- strong form of efficiency, according to which share prices adjust to publicly available new information very rapidly and in an unbiased fashion so that no excess return can be earned by trading on that information. So, this is the null hypothesis.

From the event study analysis, we can conclude the overall reaction to announcement of debt IPO in India is positive though it was not significant for all the event window. We obtained a positive return of 3.35 per cent for [-20, 20] window though it was not significant. Cumulative excess return obtained on the day of event, pre-event and post-event are 0.36 per cent, 0.53 per cent and 3.18 per cent

respectively. It should be noted that none of the above abnormal returns are significant at the 5 per cent level. As for the post-event window [0, 20] we found a positive significant return of 3.22 per cent with a t-statistics of 2.21. For a standardized two-day event window [-1, 0], our findings corroborate the findings of Hansen and Crutchley (1990) and Mikkelon and Partch (1986), though it contradicts the findings of Dann and Mikkelson (1984). The empirical findings of the study also support 'signalling' and 'pecking order' theories of capital structure, wherein issue of debt is preferred over issue of equity and are considered as 'good news'.

Results of regression analysis have revealed that during the event windows, none of firm characteristics had any significant impact on the abnormal returns, though all the coefficients were positive except for leverage which was insignificant. On the overall basis, PBIT/Sales showed a positive impact on the abnormal returns which is expected since a PBIT/Sales useful information for evaluating a company's operating performance without regard to interest expenses or tax rates, so a higher PBIT/Sales ratio would indicate a higher profitability and hence abnormal returns are expected to increase as well. Ln (Issue Amount) does present us with an ambiguous relation, but we did see a significant negative correlation between Issue amount and abnormal returns for the last model. Age of the bond did not reveal any significant impact on the abnormal returns around the announcement period. Size of firm is seen to have a significant positive impact on the abnormal return during the post-announcement period. Industry dummy is revealed to have a positive impact on an overall basis with a significant relation for model 4 indicating that manufacturing firms show more positive abnormal return than any other industry type. P/B ratio did present a mixed picture showing a significant positive impact during the [0, 0] and [-20, 20] window while for post-event window [0, 20] it showed a significant negative impact. Leverage is unveiled to have a negative coefficient on a comprehensive basis event though for none of the models it showed any significant relation. At this point, it hard to draw parallelism to any prior studies since most studies are based on convertible/exchangeable issues and studies concerning the announcement effect in the Indian context is almost non-existent.

References

1.   Abhyankar, A., & Dunning, A. (July 1999). Wealth effects of convertible bond and convertible preference share issues: An empirical analysis of the U.K. market. *Journal of Banking & Finance, 23*(7), 1043-1065.

2.   Ammann, M., Blickle, K., & Ehmann, C. (2017). Announcement Effects of Contingent Convertible Securities: Evidence from the Global Banking Industry. *European Fiancial Management, 23*(1), 127-152.

3.   Ammann, M., Fehr, M., & Seiz, R. (2006). New evidence on the announcement effect of convertible and exchangeable bonds. *Journal of Multinational Financial Management, 16*(1), 43-63.

4.   Asquith, P., & David W. Mullins, J. (1986). Equity issues and offering dilution. *Journal of Financial Economics, 15*(1-2), 61-89.

5.   Barber, B. M. (1993). Exchangeable Debt. *Financial Management, 22*(2), 48-60.

6.   Bechmann, K. L., Lunde, A., & Zebedee, A. A. (2014). In- and out-of-the-money convertible bond calls: Signaling or price pressure? *Journal of Corporate Finance, 24*, 135-148.

7.   Billingsley, R. S., Lamy, R. E., & Smith, D. M. (1990). Units of Debt with Warrants: Evidence of the "Penalty-Free" Issuance of an Equity-Like Security. *Journal of Financial Research, 13*(3), 187-199.

8.   Booth, L., Cleary, S., & Purda, L. (2013). Debt Rating Initiations: Natural Evolution or Opportunistic Behavior? *Journal of Modern Accounting and Auditing, 9*(12), 1574-1595.

9.   Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics, 14*(1), 3-31.

10. C.Stein, J. (1992). Convertible bonds as backdoor equity financing. *Journal of Financial Economics, 32*(1), 3-21.

11. Cai, K., & Lee, H. (2013). Stock Price Reactions To Debt Initial Public Offering Announcements. *The Journal of Applied Business Research, 29*(1), 69.

12. Carayannopoulos, P., & Nayak, S. (2013). Debt Issuance Under Rule 144A and Equity Valuation Effects. *Review of Pacific Basin Financial Markets and Policies, 16*(1).

13. Chang, S.-C., Chen, S.-S., & Liu, Y. (2004). Why firms use convertibles: A further test of the sequential-financing hypothesis. *Journal of Banking & Finance, 28*(5), 1163-1183.

14. Chin, S. K., & Abdullah, N. A. (2013). Announcements Effect of Corporate Bond Issuance and its Determinants. *Contemporary Economics, 7*(1), 5-18.

15. Clifford W. Smith, J. (1986). Investment banking and the capital acquisition process. *Journal of Financial Economics, 15*(1-2), 3-29.

16. Dann, L. Y., & Mikkelson, W. H. (1984). Convertible debt issuance, capital structure change and financing-related information: Some new evidence. *Journal of Financial Economics, 13*(2), 157-186.

17. Datta, S., Iskandar-Datta, M., & Patel, A. (1997). The Pricing of Initial Public Offers of Corporate Straight Debt. *The Journal of Finance, 52*(1), 379-396.

18. Datta, S., Iskandar-Datta, M., & Patel, A. (2000). Some Evidence on the Uniqueness of Initial Public Debt Offerings. *The Journal of Finance, 55*(2), 715-743.

19. Davidson III, W. N., Glascock, J. L., & Schwartz, T. V. (1995). Signaling with Convertible Debt. *he Journal of Financial and Quantitative Analysis, 30*(3), 425-440.

20. Duca, E., Dutordoir, M., Veld, C., & Verwijmeren, P. (2012). Why are convertible bond announcements associated with increasingly negative issuer stock returns? An arbitrage-based explanation. *Journal of Banking & Finance, 36*(11), 2884-2899.

21. Dutordoir, M., & Hodrick, L. S. (2012). *Self-Selection and Stock Returns Around Corporate Security Offering Announcements.* Research Paper No. 12-11, Columbia Business School.

22. Dutordoir, M., Li, H., Liu, F. H., & Verwijmeren, P. (2016). Convertible bond announcement effects: Why is Japan different? *Journal of Corporate Finance, 37*, 76-92.

23. Eckbo, B. E. (1986). Valuation effects of corporate debt offerings. *Journal of Financial Economics, 15*(1-2), 119-151.

24. Fenech, J. P. (2008). The stock market reaction to Australian convertible debt issues: new evidence. *Investment Management and Financial Innovations, 5*(3).

25. Fields, L. P., & Mais, E. L. (1991). The Valuation Effects of Private Placements of Convertible Debt. *The Journal of Finance, 46*(5), 1925-1932.

26. Ghosh, C., Varma, R., & Woolridge, J. R. (1990). An analysis of exchangeable debt offers. *Journal of Financial Economics, 28*(1-2), 251-263.

27. Hansen, R. S., & Crutchley, C. (1990). Corporate Earnings and Financings: An Empirical Analysis. *The Journal of Business, 63*(3), 347-371.

28. Jain, S., Kashiramka, S., & Jain, P. K. (2017). Market Response to Corporate Restructuring Strategies:. Proceedings of International Conference on Strategies in Volatile and Uncertain Environment for Emerging Markets, (pp. 709-716). New Delhi.

29. Jain, S., Kashiramka, S., & Jain, P. K. (2018a). Corporate Strategies: Evidence from Indian Cross-border Acquisitions. In Flexible Strategies in VUCA Markets. Singapore: Springer.

30. Jain, S., Kashiramka, S., & Jain, P. K. (2018b). Impact of Organizational Learning and Absorptive Capacity on the Abnormal Returns of Acquirers: Evidence from Cross-Border Acquisitions by Indian Companies. Global Journal of Flexible Systems Management. doi:https://doi.org/10.1007/s40171-018-0193-9

31. Jain, S., Kashiramka, S., & Jain, P. K. (2019). Wealth Effects on Cross-border Acquisition Firms from Emerging Economies. Emerging Markets Review. doi:DOI: 10.1016/j.ememar.2019.100621

32. Janjigian, V. (1987). The Leverage Changing Consequences of Convertible Debt Financing. *Financial Management, 16*(3), 15-21.

33. Kang, J.-K., & Stulz, R. M. (1996). How Different Is Japanese Corporate Finance? An Investigation of the Information Content of New Security Issues. *The Review of Financial Studies, 9*(1), 109–139.

34. Khan, M. Y., & Jain, P. K. (2019). Financial Management- Text, Problems and Cases (8e ed.). Chennai, India: McGraw Hill Education (India) Private Limited.

35. Lewis, C. M., Rogalski, R. J., & Seward, J. K. (1999). Is Convertible Debt a Substitute for Straight Debt or for Common Equity? *Financial Management, 28*(3), 5-27.

36. Long, M. S., & Sefcik, S. E. (1990). Participation Financing: A Comparison of the Characteristics of Convertible Debt and Straight Bonds Issued in Conjunction with Warrants. *Financial Management, 19*(3), 23-34.

37. MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature, 35*(1), 13-39.

38. Masulis, R. W. (1983). The Impact of Capital Structure Change on Firm Value: Some Estimates. *The Journal of Finance, 38*(1), 107-126.

39. Masulis, R. W., & Korwar, A. N. (1986). SEASONED EQUITY OFFERINGS An Empirical Investigation. *Journal of Financial Economics, 15*, 91-118.

40. McWilliams, A., & Siegel, D. (1997). Event Studies in Management Research: Theoretical and Empirical Issues. *The Academy of Management Journal, 40*(3), 626-657.

41. Mikkelson, W. H., & Partch, M. M. (1986). Valuation effects of security offerings and the issuance process. *Journal of Financial Economics, 15*(1-2), 31-60.

42. Miller, M. H., & Rock, K. (1985). Dividend Policy under Asymmetric Information. *The Journal of Finance, 40*(4), 1031-1051.

43. Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2), 187-221.

44. Neter, J., Wasserman, W. and Kunter, M.H. (1985). *Applied linear statistical models.* Homewood, IL: Irwin.

45. Neupane, S., & Poshakwale, S. S. (2012). Transparency in IPO mechanism: Retail investors' participation, IPO pricing and returns. *Journal of Banking & Finance, 36*(7), 2064-2076.

46. RaduBurlacu. (2000,). New evidence on the pecking order hypothesis: the case of French convertible bonds. *Journal of Multinational Financial Management, 10*(3-4), 439-459.

47. Roon, F. d., & Veld, C. (1998). Announcement effects of convertible bond loans and warrant-bond loans: An empirical analysis for the Dutch market. *Journal of Banking & Finance, 22*(12), 1481-1506.

48. Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-signalling Approach. The Bell Journal of Economics, 23-40.

49. Suchard, J.-A. (2007). The impact of rights issues of convertible debt in Australian markets. *Journal of Multinational Financial Management, 17*(3), 187-202.

50. Tripathi, R., Srivastava, L., & Yadav, G. (2014). Evaluation of Contribution of Debt Market in Indian Financial Market: An Empirical Study. *Global Journal of Finance and Management, 6*(8), 749-756.

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