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Corporate financing and deleveraging of firms in India

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Abstract The paper highlights systematic deleveraging of firms in India and explores the factors contributing to such deleveraging. The paper further highlights that deleveraging is pervasive in manufacturing and non-manufacturing firms almost equally. The empirical findings of the paper suggest that most consistent theoretical determinants of corporate leverage fail to explain the decline in debt ratios of the firms. However, institutional deficiencies in the form of underdeveloped bond markets and decline in corporate investments were found to be significant in explaining the decline. The results suggest that firms could be credit rationed and hence losing value on account of such deficiencies.

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Extended Summary:
Unlike other key emerging markets, firms in India are on a deleveraging trail. The paper outlines a systematic inquiry on the applicability of capital structure theories in predicting debt ratios in India. The study is an unbalanced panel data analysis of within-firm effect using data for all available non-financial firms since economic liberalization of 1991. We find that although the theoretical determinants are portable from the literature, they could not explain most of the variation in debt ratios of the firms in India. Importantly these theoretical determinants fail to explain the decline in debt ratios of the firms. On the contrary, a majority of these determinants indicate an increase in debt ratios for the firms. Against the backdrop of these controlling factors, the adverse effect of underdeveloped bond markets for credit availability for firms in India is, nevertheless, found quite significant. Following the empirical findings in this paper, we infer that firms in India may be getting adversely affected by not being able to finance their growth with adequate capital. It is possible that they are credit rationed and end up paying higher taxes than required. Among several possible reasons, we put forth that even though banks dominate the credit channels for private sector, the availability of credit is severely restricted and rationed due to several quantitative and qualitative restrictions on bank credit. Further, the bond markets in India are not vibrant enough for firms with adequate credit standing to raise funds on their own. Another possible reason for underinvestment by firms could be sustained, high cost of funds reflected by higher interest rates fuelled by large public borrowings by the government. The fact that underdeveloped bond markets contribute significantly to declining debt ratios, poses a state engendered moral hazard to developing bond markets in India.

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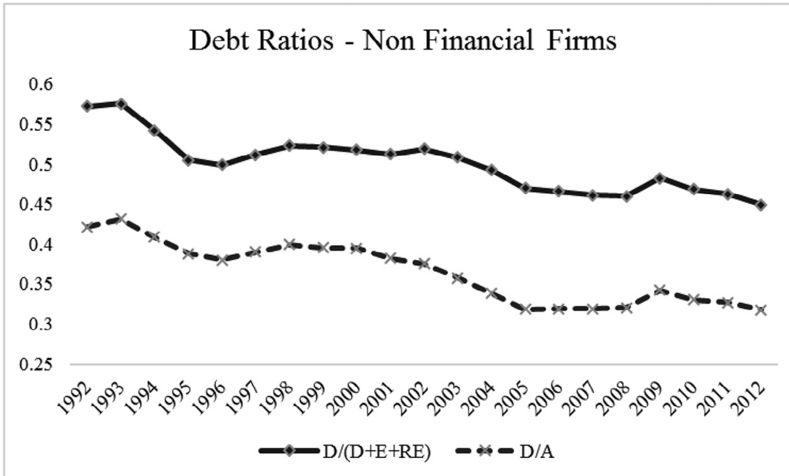

Figure 1 Trend in Debt ratios for Non-financial firms in India. D/A denotes debt to asset and D/(D + E + RE) denotes debt by total capital ratio. D, E and RE denote total debt, total paid-in equity capital and retained earnings respectively. Source: author's compilation using CMIE database.

Introduction

Despite seminal concerns against value creation through debt financing, debt has been an integral part of a typical firm's capital structure across time and space. Managers do spend a considerable amount of time in designing the capital structure of their firms. Further, empirical evidence suggests that debt financing has contributed significantly to the development and growth of an economy.[1] This is perhaps the reason why the trend in resource allocation for the majority of developed and developing countries shows a consistent increase in debt ratios over time. However, India remains an exception where debt ratios of firms are consistently declining since the economic liberalisation in the early 1990s. Fig. 1 shows the trend in debt ratios, estimated as the ratio of total debt to capitalisation (sum of total debt and total shareholders' funds) and total debt to assets, for non-financial firms in India. In contrast, debt ratios in many other emerging markets are showing an increasing trend (Mitton, 2007). It would be interesting to delve deeper into the factors that contribute significantly for such an anomaly.

We can appreciate that debt ratios[2] in India could fall as a result of increasing participation of non-manufacturing sector which has lower debt capacity and lower requirement of capital to grow. Further, the debt ratios can also fall when firms choose to offload debt, raise more equity and/or use increasing proportion of internal financing through retained earnings instead of external finance. Fig. 2a and 2b reflect on all such possibilities by plotting the ratios of debt to total capital, equity issued to total capital, and retained earnings to total capital for manufacturing and non-manufacturing non-financial firms respectively in India.[3]

Fig. 2a and 2b show that debt ratios are consistently declining not only for manufacturing sector but also for non-manufacturing sector. Further, the decline is not attributed to raising more equity capital as the ratio of equity to total capital is also declining. The decline could be mostly attributed to shedding of debt and use of more internal funds by firms to bridge their financing deficits.

The pattern in Fig. 2a and 2b would mean that either firms do not need external finance and choose to finance themselves through internal funds to a large extent or, they find themselves constrained to raise external funds. Although it looks unlikely that firms in an emerging market are saturated with capital requirements and therefore do not require external finance for growth, we check for this possibility too. An implicit benefit for firms of taking debt comes in the form of tax deductibility of interest payments. Such tax savings amounts to additional cash flows which in turn increases the value of the firm. However, excess debt and ensuing non-payment of scheduled interest payments can lead firms to bankruptcy or financial distress. The firms, therefore, strive to balance the benefits and cost of debt financing. Following this, we posit that if firms in India are voluntarily shedding their debt or are saturated with capital to finance their growth mostly with retained earnings, they would not incur a value loss on account of adverse taxations over time. In other words, after avoiding any potential distress due to debt, firms

[1] See King and Levine (1993) for seminal empirical work establishing relationship between credit market development and growth. Recent work in this area includes Rousseau and Wachtel (2002), and Loayza and Ranciere (2006).

[2] Henceforth, we have used the definition of debt ratio as total debt to capitalisation throughout the paper. However, our results are robust to the alternate definition of total debt to assets as well. Total capital includes short term debt including current portion of long term debt, long term debt, equity capital raised and retained earnings. Total capital in our definition includes all possible sources of equity and debt as per the financial statements of the firms. Since the objective of our paper is to analyse the deleveraging effect of firms and its determinants, we do not discriminate between formal and nonformal sources of capital as in Allen et al. (2006).

[3] Manufacturing firms are classified based on their National Industrial Codes (NIC) between 10,000 to 35,000. The remaining firms are classified as non-manufacturing firms. The data is gathered from Centre for Monitoring of Indian Economy (CMIE).

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