## Behavior of private corporate investment in post reform India and the role of leverage

## Abstract

From 1980s onwards and especially after economic reforms of 1991-92 private corporate sector played an important role in driving investment in the Indian economy. In the 1st decade of 21st century when gross investment became the driver of aggregate demand, private corporate investment became the most important component of overall investment activity. Further, in the downturn that followed the global financial crisis of 2008-09, private corporate investment saw its share in overall investment fall. In this context we analyze four separate but interrelated aspects associated with private corporate investment in the post-reform Indian economy using demand-side frameworks.

A quick glance at the balance sheets of modern non-financial Indian corporates reveals that they hold a large amount of financial assets along with physical capital stock. For non-financial corporates whose major business is manufacturing, mining, providing technological and other kind of services etc. there is no intuitive reason for holding large amounts of financial assets. These financial assets include investments in equity shares, preference shares, debentures, bonds, mutual funds, and bank balances. In this context, we explore the possibility that for Indian manufacturing firms accumulation of financial assets and physical assets are negatively related, as is suggested by the theory of financialization. Theory of financialization provides a framework to critically view the increasing importance of financial assets in corporate balance sheets. Indian Using data from manufacturing sector firms we establish that, for the small non-group firms, financial income as well as financial accumulation have a positive impact on physical capital accumulation. For largest firms, both group and non-group, however the relationship between financial income and

physical capital accumulation turns negative but is statistically insignificant. We also do not see any negative impact of financial payments on physical capital accumulation. We feel accumulation using debt and existence of business groups and companies owned by or affiliated to them at least partially explain these results which run counter to the financialization hypothesis. Our work therefore suggests that, whereas accumulation of financial assets has certainly increased substantially, ownership structure of a firm might be an important determinant of whether or not it has a negative impact on physical capital accumulation.

As we have noted earlier an interesting aspect of investment behavior at macro level is the growing importance of private corporate investment especially after economic reforms of 1991-92. We establish that private corporate investment, which from the 1970s onwards has been growing rapidly, is characterised by cyclicality. Most of the recent work on investment behaviour in India uses a neoclassical accelerator framework that does not allow for the possibility of cycles. We use a post-keynesian demand-side framework that uses elements from Kalecki and Minsky to study cycles in private corporate investment behaviour. Kalecki provides a simple framework, which suggests a possibility of endogenously generated cycles pertaining to the investment activity in an economy dominated by the private sector. Minsky explains role of debt in amplifying upturns in investment cycles. Following these theoretical insights, we find a strong positive relation between lagged value of private corporate profits and investment. Further, we clearly show cyclicality in both profits and investments. Finally, we find preliminary evidence suggesting a positive relation between bank credit and private corporate investment in the investment upturn and no relationship in the downturn.

In the third essay we carry out a firm-level analysis of the relationship between private corporate investment, profitability and debt. We analyze changing distribution of firms during investment upturns and downturns. This is the underlying mechanism in Minsky's financial instability hypothesis. We establish that there are two different sets of firms: first a rising

proportion of financially stressed firms who cannot invest in downturns; and second a set of healthy firms who choose to minimise debt during the downturn and therefore are not investing. We suggest that it is the combination of these effects that has prolonged the recent investment slowdown. We also see simultaneous rise in investment, profitability, and debt across multiple industries and firm sizes in the investment upturn; and fall in investments and profitability along with inability to reduce debt during the investment downturn. This firm level evidence is the micro-level analogue of the macro-level cyclicality and instability that we have established using a Kalecki-Minsky framework in Essay 2.

A common theme across all essays is role of expectations captured through the role of profits in influencing investment decisions. In the fourth essay we explore the role of negative sentiment in shaping such expectations. We quantify industry level negative sentiment using news-based textual analysis method. We explore the explanatory power of industry-level negative sentiment in explaining firm-level investment decisions over and above firm specific financial variables. We observe a significant negative impact of firm-level negative sentiment on investments for large firms. On the contrary for smaller firms, firm-level financial indicators appear to be better explanatory variables as compared to industry level sentiments.