

# **Financial stability and growth in post-reform India: a Minskyan enquiry**

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# Introduction

- The focus of Minsky (1986) was on financial instability arising in the US cyclical context
- But his stabilisation proposals also sought long-term growth and distribution gains
- Since 1992, and through the 2007-8 global crisis, India has combined financial stability with sustained economic growth
- Can a Minskyan examination of India's growth-with- 'hedge' finance experience offer more general insight into financial *instability*?

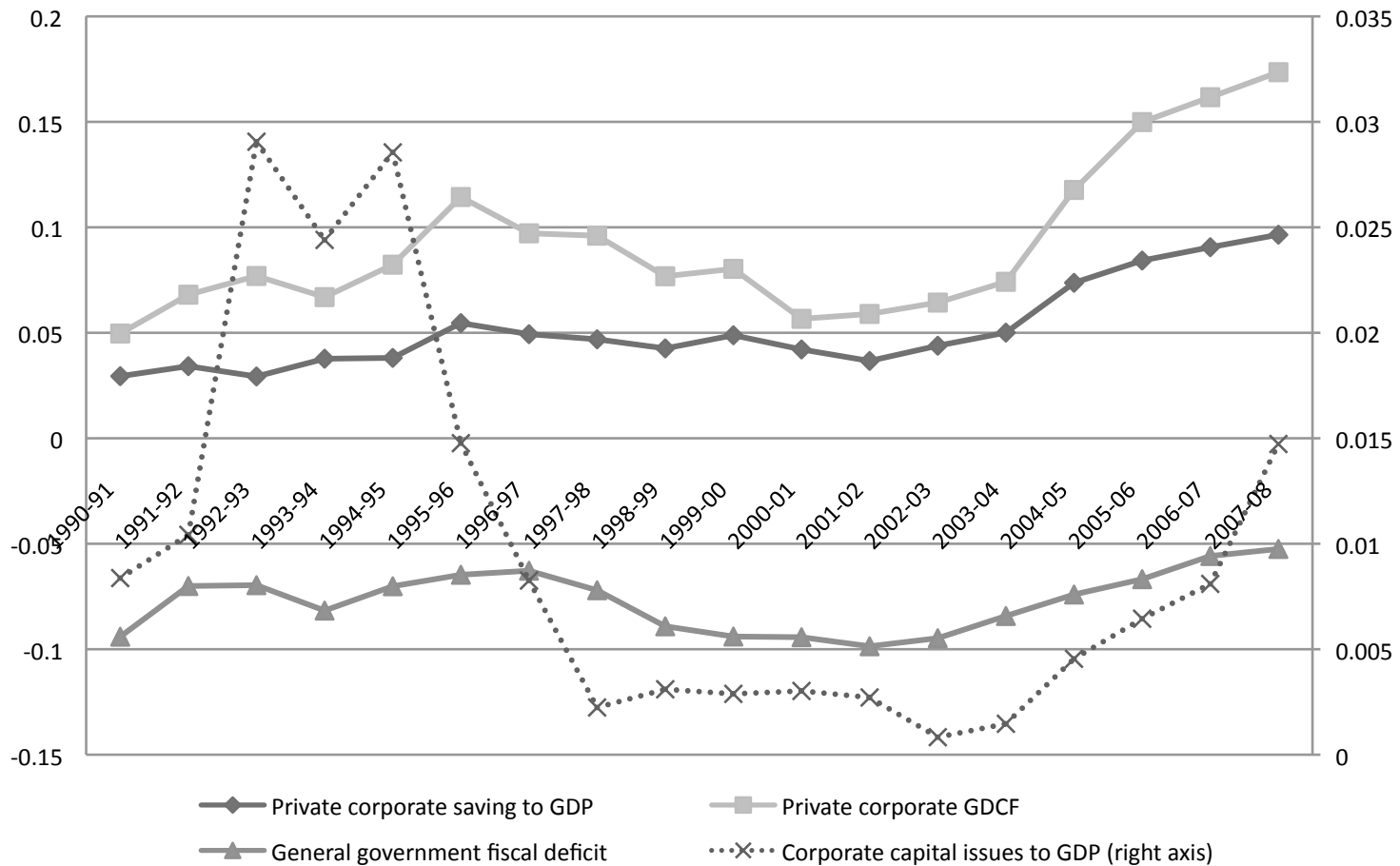
# ‘Investment is Profits’?

- Preparing for an earlier BNUIF meeting *NS* noted Kalecki’s visit to India in early 1960, and his view that industrialisation could be self-financing – Minsky’s ‘investment is profits’
- Correspondence with *JM* highlighted the Kalecki-Minsky connection and the idea of applying it to India’s recent growth
- *NS* provided the Indian material with *JM* responsible for the Minskyan perspective

# Profits are not *only* investment

- Minsky noted that investment could not be entirely profit-funded due to existing financial obligations and ancillary spending
- External finance was essential, and public budget deficits could support profitability – ***both*** are important in India ***due to B of P deficits*** and the ***domestic focus of manufacturing*** industry
- Unlike China, India's growth (6.3% 1992-07 and 8.7% 2002-07) has not normally involved external surpluses – the following 'balances' illustrate:

# Public deficits and manufacturing investment-saving balances



# Growth phases after liberalisation

- Following extensive reforms in 1992, Indian firms re-equipped vigorously until 1996-7 with the aid of extensive capital issues (40% of corporate investment in 1992-95)
- Activity slackened from 1997 through to the world slowdown of the early 2000s - the budget deficit reached 11% of GDP (2002-03)
- The subsequent 8.7% growth trend was only mildly disturbed by 2007-08 developments

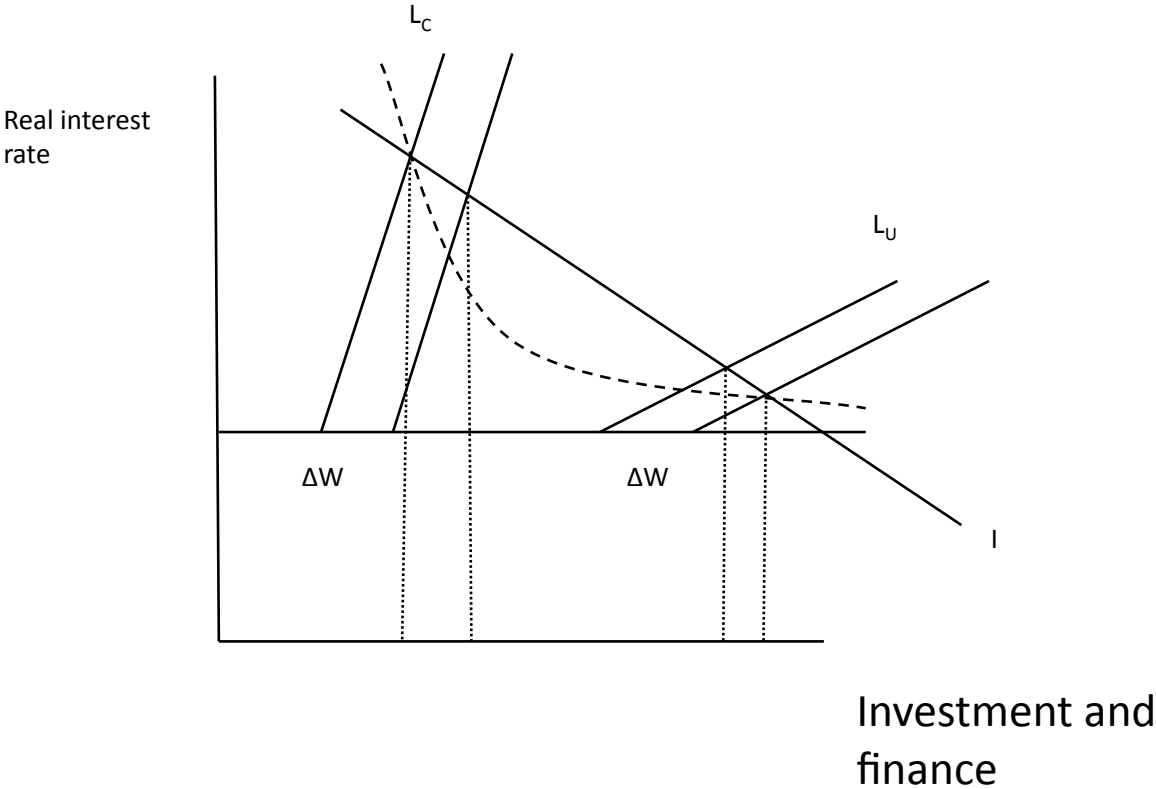
# The public budget and profits

- The pattern in the chart seems to confirm Minsky's view that budget deficits can support business profits in the downturn - and India certainly has Big Government!
- ***But how did the corporate investment-profits relationship behave over this period?***
- A natural line of empirical enquiry is the business investment-cash flow relationship

# Cash flows and financing constraints

- Fazzari *et.al* (1988), argued that investment-cash flow correlations could reveal external funding constraints
- Fazzari argued *here* that this work helped to reconcile Minsky with the 'mainstream' (1999)
- But Minsky's thinking actually *undermines* the test for a reason that is important in India
- First review the argument:

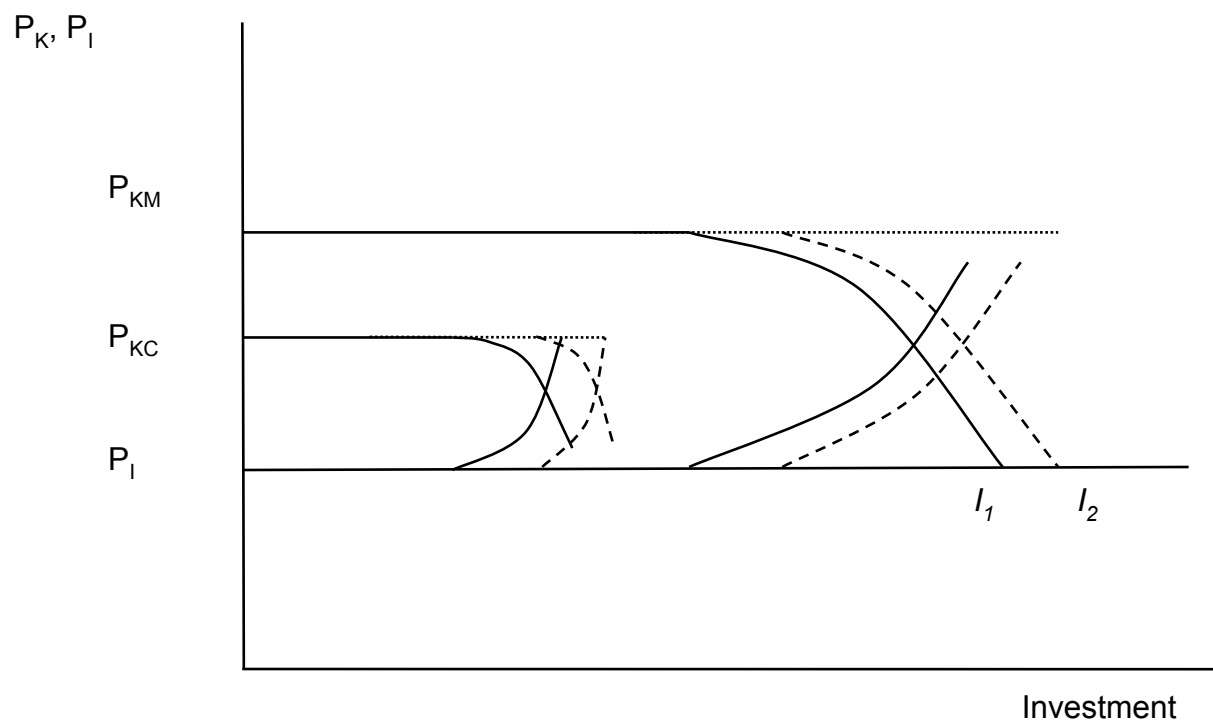
# The theory



# Owner's risk

- The curved investment function is a Kaplan/ Zingales criticism ***but a more plausible one in India is close control of firms***
- Keynes' borrower's (owner's) risk seems relevant here
- Could a financially ***un***constrained firm exhibit investment-cash flow sensitivity?
- Keynes' argument (Minsky's diagram) suggests so:

# Borrower's and lender's risk



# A joint hypothesis?

- In India, most firms are closely controlled and owners' risk is likely to be an important constraint on external financing ***even in the absence of market borrowing constraints ( $I_1, I_2$ )***
- The test regresses cash investment spending by a firm on cash flow (both deflated by beginning-of-year GFA) and on the share price-book ratio
- ***If*** small firms show greater cash flow sensitivity, it suggests ***both*** that lenders' risk dominates ***and*** that small firms are more vulnerable to it – ***eg.***

# Textiles: a special case?

Dependent variable:  $\text{Investment}_t/\text{GFA}_{t-1}$

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
$\text{CF}_t/\text{GFA}_{t-1}$	0.069592	0.204879	0.154684	0.040872
St. error	0.038771	0.036991	0.040598	0.043225
$\text{PBOOK}_{t-1}$	0.022116	0.014005	0.030868	0.028244
St. error	0.009974	0.008024	0.006925	0.006411
CF SHARES	0.934088	0.956281	0.980763	0.810337
St. error	0.171527	0.154533	0.138526	0.123211
Adj R <sup>2</sup>	0.291764	0.373666	0.351011	0.385458
Obs.	491	587	674	720

# Owners' risk after all?

- The Q2,Q3 coefficients for ***cash flow*** are comparatively high for textiles – but ***insignificant*** for Q1,Q4
- New share issue is strongly linked to new fixed investment in the sector
- Textiles, with special access to loans, has high gearing – were firms trying to reduce it?
- Owner's risk evident elsewhere. Cash flow is normally significant ***but the coefficient size is generally small. Why?***
- ***Cash flows used to limit or cut debt – 2 examples***

# Chemicals and textiles

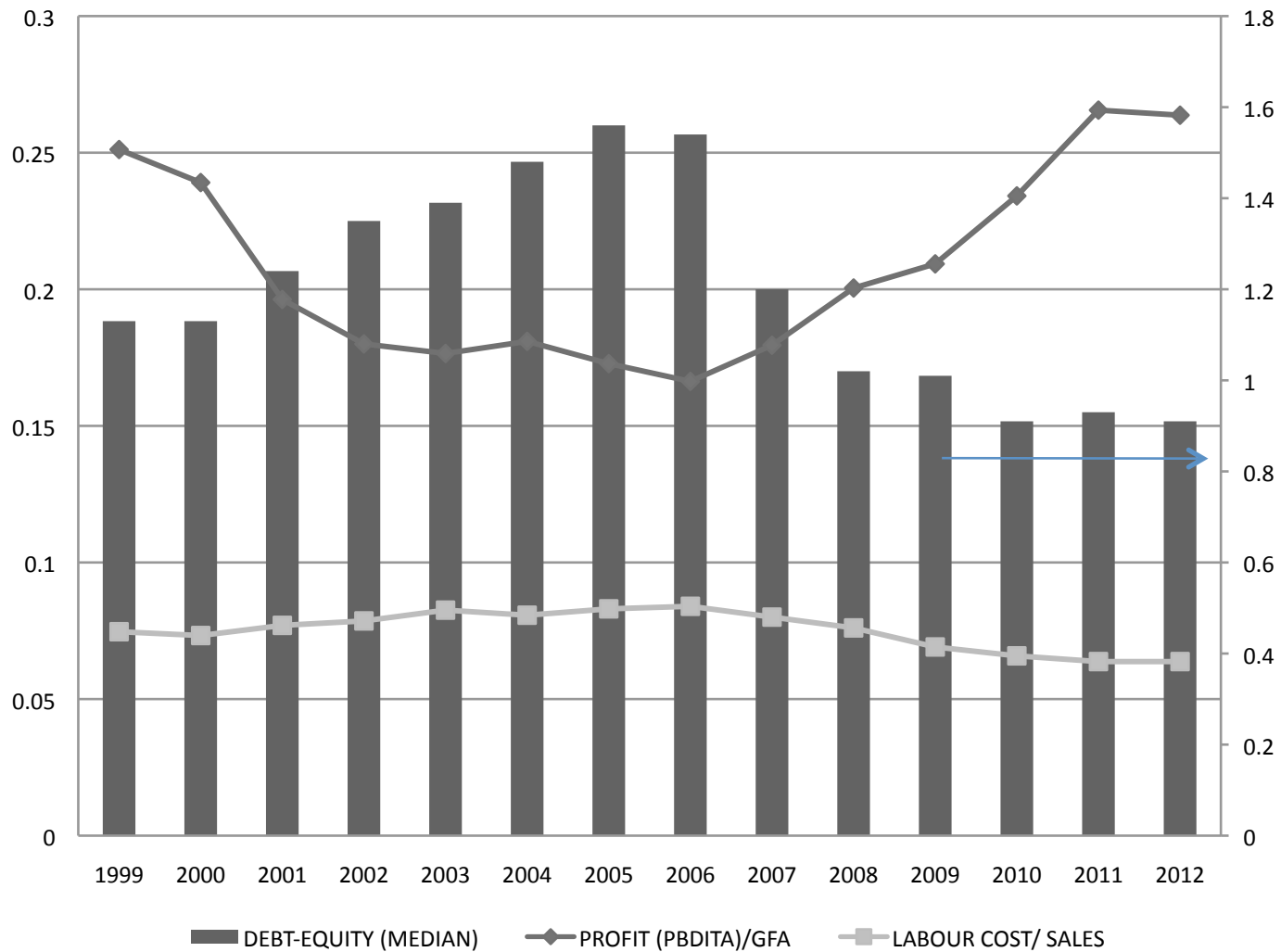
<b>Chemicals</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
$CF_t/GFA_{t-1}$	-0.19795	-0.29922	-0.30308	-0.21752
<i>se</i>	0.024602	0.025243	0.022638	0.028912
$BDEBTGFA_{t-1}$	-0.12803	-0.09658	-0.15699	-0.15362
<i>se</i>	0.023086	0.025162	0.022706	0.024318
Adj R <sup>2</sup>	0.120111	0.274999	0.223922	0.128958
Obs.	1189	1351	1377	1408

<b>Textiles</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>
$CF_t/GFA_{t-1}$	-0.31227	-0.47846	-0.37893	-0.47541
<i>se</i>	0.043925	0.04651	0.057598	0.055319
$BDEBTGFA_{t-1}$	-0.08797	-0.09457	-0.0451	-0.11203
<i>se</i>	0.032292	0.034258	0.035492	0.036893
Adj R <sup>2</sup>	0.212225	0.224088	0.168132	0.223581
Obs.	639	694	730	738

# 'Hedge' finance and growth

- As in these examples, gearing was being reduced generally - *new* bank borrowing correlated *negatively* with cash flow and with *existing* bank debt – ***two interpretations?***
- ***Lender's risk*** suggests fund ***supply*** limits but ***owner's risk*** implies ***demand*** limits for funds
- ***Demand-side limits*** are consistent with the low cash flow coefficients in the investment regressions
- But ***supply*** constraints are also thought to apply in India – ***could both be relevant?***

# Profitability and de-leveraging



# Lender's risk and the downturn

- Softening of investment spending from 1996-2002/3 (seen earlier) is linked to weaker profitability and deteriorating gearing ratios
- (Real interest rates were rising towards 9% over these years)
- Profits recovered after 2003 and debt ratios were improving
- Was lender's risk higher before 2003?

# From cash flow to capacity

	Chemicals		Food and beverages		Machinery	
	1999-03	2003-07	1999-03	2003-07	1999-03	2003-07
CF <sub>t</sub> /GFA <sub>t-1</sub>	0.080713	0.043634	0.080862	0.038896	0.064206	0.027992
<i>se</i>	0.011301	0.010682	0.015367	0.015137	0.011894	0.010703
UTN	0.019551	0.034206	0.004011	0.011872	0.015996	0.022834
<i>se</i>	0.00263	0.002951	0.002138	0.003451	0.002654	0.002419
CF SHARES	0.417605	0.296054	0.237805	0.394071	0.1314	0.25757
<i>se</i>	0.045098	0.039503	0.069871	0.062166	0.036133	0.030744
Adj R	0.388749	0.491929	0.339541	0.438612	0.354949	0.49448
Obs.	2928	2992	1327	1347	1695	1682

# Is credit pro-cyclical?

- In these (typical) cases cash flow constraints seem to have been stronger when profitability was lower (pre-2002)
- Capacity utilisation became critical after profits recovered – and cash flow constraints were less significant
- Growing investment funded by profits so that book gearing continued to decline

# Conclusions: Minsky and growth

- Credit and the cycle are positively related as Minsky argued – but mainly due to relaxation of lending limits on investment, not to financial innovation
- Close control of firms effectively limits appetite for speculative finance – investment is (mainly) profits and investment *incentives* are critical
- Lagging agriculture is important in India as Kalecki recognised, though the mechanism is closer to Minsky:
  - (i) food price inflation tends to tighten monetary policy, increasing credit constraints and damping investment
  - (ii) (public) investment in agriculture can ease (i) and **crowd-in** private investment according to RBI studies