Stylized facts in structural change in transition: discussant's remarks

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This is the research

- That we always say should be done more
- But is rarely done
- Careful application of standard methodology to a specific context, paying attention to the details of the environment
- In the Indian context, the question they focus on is do we see a change in the structural business cycle variables after 1991.
- The answer is yes: Our business cycle is becoming more and more like the OECD business cycle.
- Soon we will be able to say fun things like "double-dip recession", debate whether the recession is U shaped or V shaped….

Specifically

- Output volatility has gone down slightly
- Investment is more pro-cyclical
- Imports are more pro-cyclical
- Exchange rate is more countercyclical
- Inflation is more predictable and more pro-cyclical
- Government expenditure is less volatile

On the other hand

- Output volatility is still high
- Consumption is not less volatile
- Government expenditure is less countercyclical

What is exactly the fact here?

- Depends on our theory of growth/business cycle. Assume, for example

$$Logy_{t+1} = aLogy_t + bg_t$$

Where g_t is a set of growth shocks with a positive mean

- This generates a positive relation between growth and volatility driven by differences in beta.
- Is India more volatile because it is growing faster?
- Should we scale volatility by growth?

However

- Negative correlation between volatility and growth (Ramey and Ramey)
- Suggests that what we suggested is not the right model.
- Of course it could be that growth increases volatility and volatility reduces growth..

A possible story

- Essentially links growth and volatility to the policy regime: this is view implicit in this paper
- Before 1991, positive productivity shocks could not be accommodated because of the closed economy: Generated inflationary pressures and the exchange rate worsened
- After 1991 the same shocks were permitted to generate growth. Investment and imports went up, but foreign investment flowed in and the exchange rate appreciated.
- Output volatility would have gone up but for imports.
- Consumption volatility remains high because mostly permanent productivity shocks (Aguillar-Gopinath)
- Are productivity shocks really that different?

A less optimistic view

- Productivity shocks get amplified by frictions
- Positive serial correlation through the cash-flow channel
- Negative serial correlation through the price of non-traded inputs
- For example as in Aghion-Bacchetta-Banerjee
- Excess output volatility as result of capacity underutilization
- Consumption volatility is driven by shocks to income that are larger or more persistent than they should be

The evidence

- Not much evidence that investment responds more to productivity shocks in economies with less good capital markets. If anything the reverse (Angeletos-Aghion-Banerjee-Manova)
- On the other hand the fraction of long-term investment in total investment is more pro-cyclical in economies with less good capital markets. If long-term investment is what enhances productivity, then a similar story to the one in the previous slide goes through.

Dependent variable:	Total investment / GDP			
	(1)	(2)	(3)	(4)
investment / GDP				
priv credit	3.43	2.42	2.49	2.52
	(1.76)*	(1.05)	(1.13)	(1.13)
*priv credit*shock $_t$*	-0.18	1.61	2.53	1.72
	(-0.60)	(1.10)	(1.52)	(1.21)
*priv credit*shock $_{t-1}$*	0.41	2.54	3.26	1.82
	(3.57)***	(1.90)*	(2.45)**	(1.46)
*priv credit*shock $_{t-2}$*	-0.61	0.10	3.00	3.22
	(-2.31)**	(0.05)	(1.61)	(1.54)
*comm share*shock $_t$*				-0.12
				(-0.72)
*comm share*shock $_{t-1}$*				-0.20
				(-3.92)***
*comm share*shock $_{t-2}$*				0.08
				(0.86)
Controls:				
shocks; income; country & year FE	yes	yes	yes	yes
income & rulelaw interactions	no	no	yes	yes
abs(shock)<=1	no	yes	yes	yes

Dependent variable: Share of private structural investment in total private investment

Fin devt measure:	Private credit$_{1960\text{-}2000}$			Liquid liabilities	
	(1)	(2)	(3)	(4)	(5)
fin devt				-0.054	-0.053
				(-0.93)	(-0.91)
*fin devt*shock* $_t$	-0.012	-0.044	-0.066	-0.058	-0.089
	(-2.89)***	(-2.39)**	(-2.27)**	(-3.43)***	(-3.11)***
*fin devt*shock* $_{t-1}$	0.003	-0.052	-0.052	-0.062	-0.073
	(1.26)	(-1.76)*	(-1.58)	(-3.10)***	(-2.90)***
*fin devt*shock* $_{t-2}$	0.000	-0.087	-0.113	-0.054	-0.095
	(-0.10)	(-4.79)***	(-4.89)***	(-1.56)	(-2.61)**
Controls:					
shocks, income	yes	yes	yes	yes	yes
country & year FE	yes	yes	yes	yes	yes
income & rulelaw interactions	no	no	yes	no	yes
abs(shock)<=1	no	yes	yes	yes	yes

One policy question

- How costly is this consumption volatility?
- We need to look at the sources of consumption variability in household data
- A lot of the consumption variation within the year is probably seasonal. Does not look like iid shocks
- Is it mostly additional "permanent" jobs created for people who are entering the higher productivity sector (dual economy view)?
  - If it is not anticipated, the welfare cost of the anticipation is probably quite limited
- The bigger cost is not the volatility but the underlying inefficiency.