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

\[ \log y_{t+1} = \log y_t + g_t \]

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.
<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Total investment / GDP</th>
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<td><strong>investment / GDP</strong></td>
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<td>(3.57)***</td>
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<td>(-2.31)**</td>
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**Controls:**
- shocks; income; country & year FE: yes, yes, yes, yes
- income & rulelaw interactions: no, no, yes, yes
- abs(shock) <= 1: no, yes, yes, yes
<table>
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<th>Fin devt measure:</th>
<th>Private credit\textsubscript{1960-2000}</th>
<th>Liquid liabilities</th>
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<td>(2)</td>
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<td>fin devt*shock\textsubscript{t-1}</td>
<td>0.003 (1.26)</td>
<td>-0.052 (-1.76)*</td>
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<tr>
<td>fin devt*shock\textsubscript{t-2}</td>
<td>0.000 (-0.10)</td>
<td>-0.087 (-4.79)**</td>
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</tbody>
</table>

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)\textless=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.