Motivations for capital controls and their effectiveness

Radhika Pandey    Gurnain K. Pasricha    Ila Patnaik    Ajay Shah

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Part I

The role of capital controls
The old consensus

- Capital controls give microeconomic distortions
- Capital controls give bureaucracy, corruption, lobbying
- Capital account liberalisation is an integral part of modernisation
- From the 1980s onwards, capital account liberalisation took place worldwide.
- In 2011, the 56 countries who have a fully open capital account (based on the Chinn-Ito measure) make up 59% of world GDP.
Reopening the debate

- Maybe a capital surge coupled with bad micro-prudential regulation works out badly.
- Maybe foreign investors are irrational and extreme capital flow reversals take place.
- Can capital controls be useful in macro-prudential policy?
- One step further: Can capital controls be useful for macroeconomic policy?
- Olivier Blanchard: use monetary policy, exchange rate intervention, macro-prudential tools and capital controls in conjunction to prevent large exchange rate changes that cause disruptions in the real economy and financial markets.
- IMF: Capital controls are back in the toolkit.
In democracy, politicians and bureaucrats are never given arbitrary power.

If capital controls are to be in the toolkit, we require:
  - The objective that will be pursued
  - A precise statement of the coercion that will be applied
  - Conditions under which it will be applied
  - Proof that the benefits outweigh the costs.

For capital controls to graduate into the toolkit, a body of evidence is required on the four questions.

But the 56 most-researched countries in the world have no capital controls.
What the rehabilitation of capital control actions (CCAs) requires

A research program that addresses four questions:

- What do policy makers actually do when they wield CCAs?
- Precise definitions and a shared vocabulary. Precisely what kind of capital control are we advocating?
- What CCAs are useful under what circumstances?
- Cost-benefit analysis.
Walls or gates?

- A great deal of evidence that once a country opens up, episodic use of controls is ineffective.
- Once a country has sophisticated firms (both financial and non-financial), they will find a way to route around a given restriction.
- If capital controls are to be effective, what’s needed is a comprehensive administrative system of controls.
This paper

The most interesting setting: India:

1. One of the two large countries in the world which has a comprehensive administrative system of capital controls.
2. Focus only on capital controls on debt, which might have a macroprudential objective.
Part II

Measurement of CCAs
The old literature

- It is hard to measure how open a country is.
- E.g. is China more open than India?
- Low frequency databases - e.g. Chinn-Ito.
- Poor measurement of openness has plagued the literature on capital controls.
A recent novel idea

- Instead of measuring the *level* of capital account openness, let’s measure every capital control *action*.
- There is no doubt about the date of the legal instrument and it should be possible to classify it well.
- Can study causes and consequences.
- We won’t know about the overall level of openness of a country, but we will be able to make precise statements about why the authorities act and what a difference this makes.
Three stages of measurement


This paper The logical conclusion: A new CCA database based on analysing every legal instrument issued by the authorities.
The setting

- India has a comprehensive administrative system of capital controls.
- Foreign borrowing is termed ‘External commercial borrowing’ (ECB).
- We study every legal instrument for CCAs on ECB.
- Analysed and classified by lawyers.
- Made a database about this for the 2004–2014 period.
- Discarded ambiguous actions.
- Led to a database with 68 easings and 7 tightenings.
- (Through all this Chinn-Ito measure for India was unchanged).
Part III

What determines the use of CCAs?
The possibilities

- Exchange rate objectives.
  1. INR/USD returns.
  2. Frankel-Wei residual.
  3. REER.
  4. EMP.

- Macropuadential objectives.
  1. Private bank credit.
  2. Stock prices.
INR/USD returns

68 easing

7 tightening
Frankel-Wei residual

62 easing

7 tightening
62 easing

7 tightening

REER
Exchange market pressure

62 easing

7 tightening
Private bank credit

62 easing

7 tightening
Stock prices

62 easing

7 tightening

(Cum.) change in Nifty (%)

Event time (days)
Capital flow surge

50 easing

4 tightening

Event time (quarters)

(Cum.) change in gross flows (%)

-5 -4 -3 -2 -1 0

-40 0 20 40
Part IV

Consequences
Possibilities

- A CCA on a particular kind of capital flow will impact on that narrow measure, but the market will find other labels through which that capital will find its way into the country. Prediction: Tightening ECB will impact on ECB but not on overall capital flows.

- Signalling: When a country retreats from economic liberalisation, this adversely affects foreign equity capital flows and adversely affects stock prices (and vice versa).

- Impact upon exchange rates: Maybe CCAs do achieve exchange rate objectives.

- Impact upon macroprudential objectives: Maybe CCAs do deliver on curbing private bank credit growth, stock prices and capital flow surges.

We will first do correlations and then do causal effects.
Signalling value: Impact on stock prices

68 easing

![Graph showing the cumulative change in Nifty (%) over event time (days) for 68 easing.]

7 tightening

![Graph showing the cumulative change in Nifty (%) over event time (days) for 7 tightening.]

Signalling value: Impact on foreign capital flows into the equity market

68 easing

7 tightening

(Cum.) change in FII equity (bps)

Event time (days)
Impact on ECB flows

62 easing

7 tightening
Impact on overall capital flows

50 easing

4 tightening
Impact on INR/USD returns

68 easing

7 tightening
Impact on Frankel-Wei residual

68 easing

7 tightening

(Cum.) change in FW resid. (%)
Was it currency volatility that was the driver?

68 easing

7 tightening
Was it volatility of the Frankel-Wei residual that was the driver?

62 easing

7 tightening
Impact on REER

62 easing

7 tightening
Impact on Exchange market pressure

62 easing

7 tightening
Impact on Private bank credit

62 easing

7 tightening
Part V

Causal analysis
The puzzle of causal effects

- We observe the outcome after the treatment
- We don’t observe the counterfactual.
- Key insight: RBI responds to a certain macro-economic situation.
- Can we identify moments in time which are similar to those in which the RBI used CCAs?
- Propensity score matching: Estimate a logit that predicts an easing CCA, and identify moments in time which are the control.
Example: The impact on the INR/USD exchange rate
### Other causal impacts

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<th>OLS</th>
<th>Robust</th>
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<tr>
<td>1</td>
<td>0.06 (0.112)</td>
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<td>0.09 (0.156)</td>
<td>0.11 (0.168)</td>
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<td><strong>Credit growth</strong></td>
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<td><strong>Square of INR-USD returns</strong></td>
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<td>-0.7 (0.861)</td>
<td>-0.52 (0.897)</td>
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Part VI

Conclusion
The Indian authorities use CCAs to pursue exchange rate objectives.

Reversals of economic liberalisation are seen as a problem by the equity market and by foreign investors in equities.

CCAs have no impact.
Thank you.