MANAGING CAPITAL FLOWS:

HOW TO COMBINE CAPITAL CONTROLS, MACRO PRUDENTIAL TOOLS, FX INTERVENTION AND THE POLICY RATE

Olivier Blanchard, Jonathan Ostry, Atish Gosh, Marcos Chamon*

NBER and Central Bank of Turkey Conference on:

Monetary Policy and Financial Stability In Emerging Markets

Istanbul, Turkey, June 13-14, 2014.

***The views expressed in this presentation are those of the presenter and do not necessarily represent those of the IMF or IMF policy.**

Managing Flows

- Focus on capital flows triggered by external factors (limited scope, but hard enough…)

- Potentially four tools:
  - Capital controls
  - Macro prudential policies
  - FX Intervention
  - Policy rate

How to Combine The Tools?

- Substantial work on implications of specific distortions and use of one or two instruments.
- No integrated view. Will take a while.
- Policy makers need a road map today.
- We offer a tentative one, with obvious caveats
  - Based on two basic ideas:
  - Some flows are “bad”
  - “Good” flows still present financial/macrostability risks.

“Bad” versus “Good” Flows

- *“What useful purpose is served by short-term international capital flows?”—Stanley Fischer*

Short horizon flows:

- Provide liquidity to FX and some asset markets
- Create rollover risks (which may be only partially internalized or simply underestimated by borrowers)
- If sufficiently short, are they worth it?

“Good” Flows

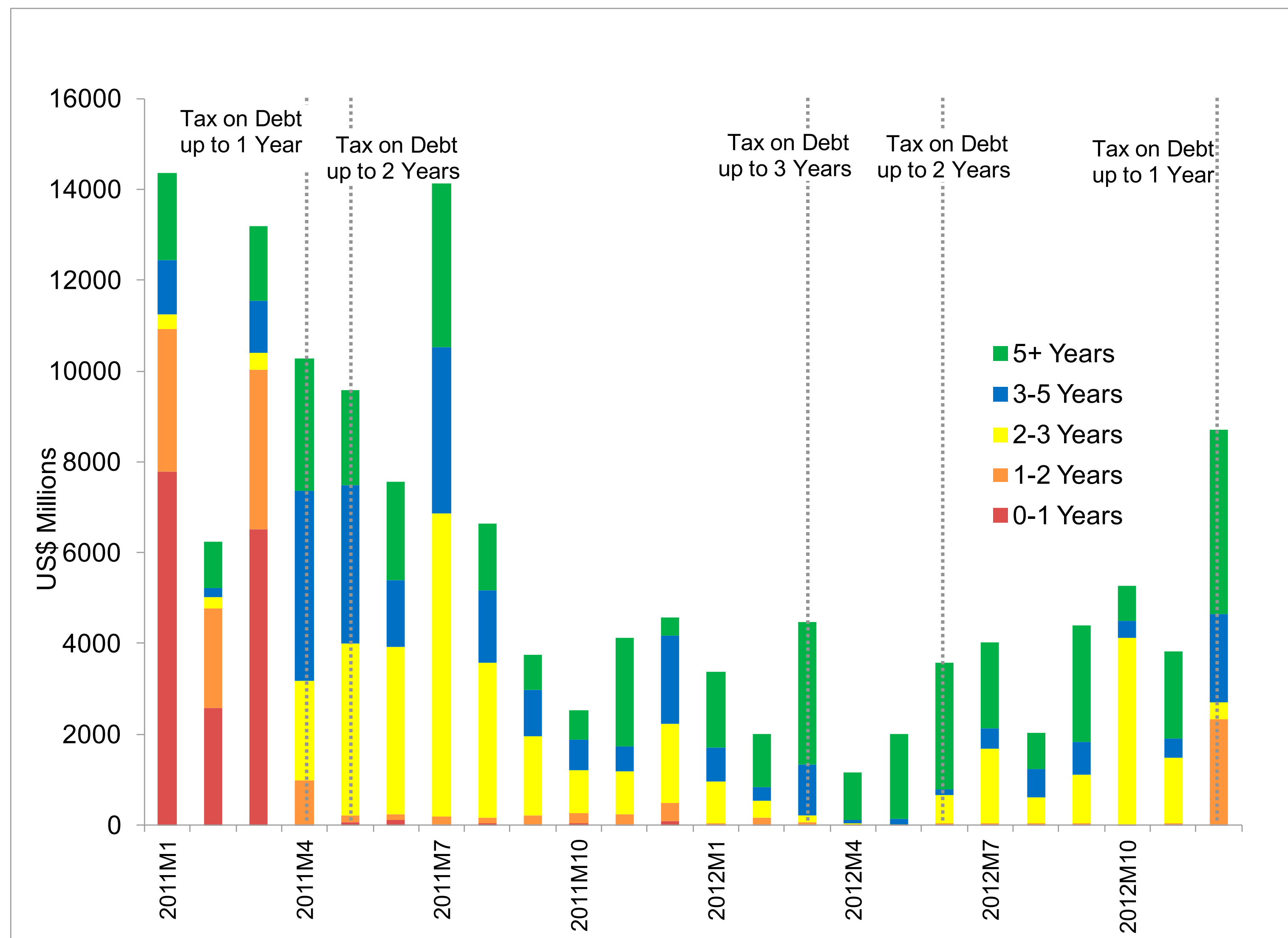
- “Good” flows also bring risks:
  - To financial stability. Limited ability of financial system to manage large inflows. Credit booms and asset price bubbles
  - To macro stability. Overheating. Dutch disease (temporary appreciation may cause lasting damage to tradable sector)

The Four Tools: Evolving Views

Capital Controls

- Marked evolution of views
- Recognized as a legitimate part of the toolkit
- Logical choice when flows perceived to be "bad"
- Many questions remain about optimal design (toll tax?) and quantitative effects: composition and overall volume

Maturity of External Debt Flows to Brazil (Excludes Portolio Debt)



Macro Prudential Tools

- Marked evolution of views
- Widely seen (at least in principle) as the proper instruments to deal with financial stability
- Two types.
- Directed tools aimed at flows through the demand side, e.g., restrictions on FX.
- General tools aimed at credit, housing
- Much ongoing theoretical and empirical work, but like capital controls, hard to quantify their effect

FX Intervention and Policy Rate

- FX Intervention
  - Shifting attitudes (pre-crisis general view was skeptical; current view more agnostic)
  - If shifts in investors' positions can move the exchange rate why can't another investor, namely the central bank?

- Policy rate
  - Confusion: Raising rates to cool economy can attract more flows. So up or down?

How Have Countries Responded?

Capital Controls

- Heterogeneity of responses
  - Brazil used them heavily (broad based tax on inflows); Israel used on non-resident currency swaps
  - South Africa and Thailand liberalized restrictions on outflows
  - Some simply ruled out their use (e.g., Chile and Turkey).

Macro Prudential Tools

Widely used, with wide variety of instruments

- FX-related measures (Brazil, Korea and Peru)
- Minimum holding period for CB bills (Indonesia)

- LTVs (India, Israel, Korea, Thailand, Turkey)
- Capital Requirements (Brazil, India, Thailand, Turkey)
- Consumer loans/credit cards (Brazil, Turkey)
- Restrictions on adjustable rate mortgages (Israel)
- Measures aimed at non deposit funding (Korea)
- Dynamic Provisioning (Peru)

FX Intervention and Policy Rate

- FX Intervention
  - Widespread use
  - Official motivation: Avoid disorderly conditions in the FX market"
  - Consistent with large accumulation?
- Policy rate
  - No consistent response.
  - Dilemma?
  - Other domestic shocks, and other external shocks

Quantifying the Response

- We estimate response of the policy rate and FX to either the exchange rate (e), or capital flows (k):
  - $r = a\,e + \varepsilon$; or $r = a\,k + \varepsilon$, IV (x: global flows)
  - $R = b\,e + \varepsilon$; or $R = b\,k + \varepsilon$, IV(x: global flows)
- 2005-1 to 2013-4. 19 countries

Estimation Results

- No systematic response of the policy rate to either the exchange rate or to net flows (not surprising given competing demands on policy rate)
- Positive and significant response of FX Intervention to the exchange rate and flows in most cases; Median estimates point to:
- A 1% of GDP increase in Reserves in response to a 10 percent appreciation (driven by global flows)
- A 0.75% of GDP increase in Reserves in response to a 1% of GDP net flow (driven by global flows).

How Should Countries Respond?

The Simple Mapping

- If all instruments worked perfectly, the mapping would be:

- Use capital controls to discourage “bad” inflows:
- Use (directed and non directed) macro prudential tools to maintain financial stability
- Use the policy rate and FX intervention to maintain macro stability

- But many complications…

Interactions

- Instruments interact.
  - Capital controls reduce the burden on policy rate and FX Intervention
  - FX Intervention mitigates appreciation, but attracts more inflows: Increase burden on policy rate and controls
  - Macro prudential decreases demand, reducing burden on policy rate.
  - So not sequential. And need for coordination: All under the (joint) control of the central bank (and ?)

Capital flows and Demand

$$IS: y = a(\overset{+}{y}, \overset{-}{r}, \overset{+}{k}(\overset{-}{e}, \overset{+}{r}, \overset{+}{x}), \overset{-}{R}) + nx(\overset{-}{e}, \overset{-}{y})$$

$$BOP: k(\overset{+}{r}, \overset{-}{e}, \overset{+}{x}) + nx(\overset{-}{e}, \overset{-}{y}) = R$$

- Standard effect for given r: x up, e up, y down
- But indirect effect, through k on a in IS relation
- Which one dominates? Big issue, not settled

Imperfect Instruments.

- Some instruments cannot be used:
  - OECD restrictions on the use of capital controls
  - Domestic political limits on macro prudential tools
- Some instruments work (or are thought to work) poorly:
  - Capital controls and offshore activity
  - FX intervention in deep FX markets
  - Macro prudential and flows outside the regulated sector.

Many possible subsets. Look at some.

FX Intervention vs Controls

- Motivation: Some countries use only controls, some countries use only FX intervention. If only one, which one?
- Both can limit appreciation
- Each has shortcomings if used alone:
- Capital controls stop flows, good and bad.
- FX intervention lets flows in, bad and good.
  - Importance of specific sterilization instruments
- Fiscal cost versus macro cost?

No FX intervention,no controls?

- Leaves macro prudential and policy rate.
- Policy rate aimed at exchange rate
- Macro prudential as a wedge, used to affect domestic demand and output.
- But macro prudential must do triple duty (discouraging bad flows, financial stability, and macro stability)
  - Doubtful if it can do all three well.

Conclusions

- We have proposed a tentative mapping of instruments to objectives.
- Four targets, four instruments.
- Using subsets has potential costs.
- Are the different subsets used by different countries the right ones? Or the result of history?

Conclusions

- At most a first step. In particular, further work must consider:
  - Role of fiscal policy (perhaps limited for high-frequency capital flow shocks)
  - Asymmetries in tools re: inflows and outflows
  - Role of domestic policies (our focus was on flows caused by global shocks)
  - Political economy, credibility issues.
  - Multilateral considerations