#### **Capital Controls or Macroprudential Regulation?**\*

Anton Korinek and Damiano Sandri, authors

Manuel Ramos-Francia, discussant Vice-governor, Banco de México

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\* The opinions expressed in this presentation are exclusively the responsibility of the discussant and do not necessarily reflect the point of view of the Banco de México.

## **Paper's Main Results I**

- Their paper aims to study how pecuniary externalities lead to financial amplification in a SOE. Their main finding is that both capital controls and macroprudential policies are necessary in EMEs that are at risk of contractionary ER depreciations.
- In their model, borrowers are financially constrained and do not internalize the effect their decisions have on the relative price of the non-tradable good (i.e., the real exchange rate).
- On the other hand, savers are not financially constrained. Foreigners borrow/save and buy/sell the tradable good with domestic agents.
- Delving into the paper's main results:
  - *i.* When the financial constraint binds, the real exchange rate is more sensitive to changes in the borrowers' endowment. Borrowers' constraint and the pecuniary externality lead to an amplification mechanism.

## **Paper's Main Results II**

- Delving into the paper's main results (continues):
  - ii. A policy maker is able to implement the constrained planning problem's optimal allocation through taxes on borrowers, subsidies on savers, and lump-sum transfers to both. For doing so, she needs capital controls and macroprudential policies. Note that as borrowers sell less debt and savers buy more bonds, the excess savings are allocated abroad. Once implemented, such policy makes a distinction between domestic and foreign agents' financial transactions, providing capital controls.
  - *iii.* An extension of the second result under uncertainty, with complete and incomplete markets. As an important assumption, in the bad states the financial constraint binds. Similarly, the policy maker is able to implement the constrained planning problem's optimal allocation.

## **Paper's Main Results III**

Delving into the paper's main results (continues):

iv. They change their setup in two ways: non-tradable good is dropped and capital is introduced. Borrowers' linear technology is superior to savers' diminishing marginal returns technology. If borrowers are financially constrained, they reduce their capital accordingly. Capital is reallocated from borrowers to savers, sending the price down (i.e., fire sales). Since asset prices are determined solely by the borrowers' constraint, macroprudential policies are sufficient to get the optimal allocation.

It has the flavor of Kiyotaki and Moore's "Credit cycles" model, as it contains an amplification mechanism through financial constraints and all borrowing is collateralized.<sup>1/</sup>

1/ Kiyotaki and Moore (1997)'s "Credit Cycles." Journal of Political Economy 105 (2): pp. 211–248

## **Present Policy Issues I**

- Capital flows:
  - ✓ Are a two way phenomena.
  - ✓ Their volatility is as big an issue.
- Going forward there are three main issues:
  - Overleveraging. What did countries do when they were recipients of huge capital surges? Some financed credit and consumption booms, leading to overleverage (also favorable TOT). Others decided to accumulate reserves as self-insurance.
  - ✓ US interest rates. The proper response is to have well-anchored inflation expectations domestically, and tighten as much as possible fiscal policy.
  - ✓ Capital outflows. Having deep markets is fundamental as they intermediate large shocks much better. Alternatively, authorities might need to adopt "market maker" role. Finally, if this is not possible, they could enter a facility with the IMF.

#### **Present Policy Issues II**

- Capital controls can be circumvented and lead to policy uncertainty.
- There is then the risk of over-stating the efficacy of capital controls.
- Raging debate over capital controls. This during unprecedented times.
- Empirical support:
  - $\checkmark$  Capital controls: Rangel et al. (2012).<sup>1/</sup>
  - ✓ FX interventions: García-Verdú and Ramos-Francia (2014).<sup>1/</sup>

Both papers implement event-studies to analyze how capital controls and banking regulations, and interventions, *respectively*, affect the risk-neutral densities of the expected exchange rates.

Potential for central bank cooperation. Yet, "...a fair-weather phenomenon." (Schwartz, 2000) <sup>2/</sup> and significant trade-offs going forward.

1/ Rangel, G., G. Abarca, and C. Ramirez. (2012). "Capital Controls and Exchange Rate Expectations in Emerging Markets." Banco de México, Working Papers 2012-08. García-Verdú, S. and M. Ramos-Francia (2014). "Interventions and Expected Exchange Rates in Emerging Market Economies." Banco de México, Working Paper 2014-11.

2/ Schwartz, A. J. (2000). "The Rise and Fall of Foreign Exchange Market Intervention." NBER Working Paper 7751.

# **Political Economy and Redistributive Effects**

- To avoid fire sales, over-leveraging, and/or financial amplification, the authors propose taxing borrowers and subsidizing savers. This does not account for the debt-overhang problem that possibly is already present.
- The main issue in policy making recently in many countries is not to correct a flows problem, but a stocks problem that has already happened.
- Monetary policy stances have led to wealth redistribution. It has perhaps led to important moral hazard problems.
- Policy prescriptions go in the right direction. Yet, the discussion that balance sheets are a first order of business to get economies going again is not dealt with. The operability of the proposal is problematic.
- QE goes precisely in the opposite direction. If policy makers were to raise the interest rate to reduce overborrowing, the economy could simply become inoperative. One should be careful with redistributive effects.

# Summing up

- Macroprudential policies and capital controls (if used) have to be complemented by fundamental macroeconomic policy discipline. Monetary and fiscal policies, and in some cases structural reforms, are crucial to gain resilience to outside shocks, including capital flows.
  - ✓ In many ways, the Mexican Economy has been here before. Mexico started implementing macroprudential policies since the late 90s, in the aftermath of its 1994/1995 crisis.
  - ✓ Many EMEs' banking systems were resilient during the worst of the financial crisis.
- Development of deep, ordered, and resilient exchange rate market. This involves other closely related markets, e.g., futures and derivatives.
  - Mexico has been diligently working on this. The Mexican Peso Exchange Rate market is the 8<sup>th</sup> most trade currency in the world, and the 1<sup>st</sup> among EMEs. (BIS, 2013).<sup>1/</sup>

1/ Bank of International Settlements (BIS) (2013). "Triennial Central Bank Survey. Global foreign exchange market turnover in 2013." Monetary and Economic Department. February.

# **Concluding Remarks**

- Nothing substitutes for having ones economy's <u>fundamentals right.</u>
- Capital controls (if used) and macroprudential policies should be seen strictly as complementary policies, specially capital controls. As has been long known, capital controls have large enforceability issues.