Capital Flows and Macroprudential Policies–A Multilateral Assessment of Effectiveness and Externalities

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Sixth BIS Consultative Council for the Americas Research Conference, Mexico, April 2015

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

The paper in a nutshell

- Assesses the effectiveness and externalities of macroprudential policies (MPPs) used to manage capital flows
  - Conditions on the structure of the domestic banking system
  - Sample: about 139 countries over 1999-2009
  - Uses MPP measures from existing literature (Qureshi et al., 2012; Lim et al., 2011)
- Finds that banking system structure matters for MPP effectiveness
  - High share of non-resident bank loans reduces the effectiveness of most MPPs
  - High ROA in the domestic banking system increases the effectiveness of MPPs
  - High ROA in the banking system of neighboring countries reduces spillovers
  - But greater trade integration increases spillovers across countries

What I like…

- Effectiveness and multilateral effects of measures to manage capital flows is a very relevant issue
  - Ghosh et al. (2014, IMF WP14/188) find a strong effect of capital controls and FX-related prudential measures in both source and recipient countries on banking flows…
  - Also find evidence of spillover effects from capital inflow controls in neighbors
- Nice idea to analyze the spillover effects of MPPs
- As well as to analyze the effectiveness of domestic MPPs conditional on banking system structure

What I found less convincing…

- Too many interactions in the regressions
  - Results would be easier to compare and comprehend if more parsimonious specifications are estimated
  - Analyze the effect of MPPs first, then with interaction terms
  - Some quantitative estimates of the effects around mean values of the conditioning variables should be reported to get an idea of the magnitude of the effects
- In a model with interaction terms ($y = b_1 x + b_2 z + b_3 xz + \varepsilon$), the marginal effect of x on y is $b_1 + b_3 * z$, and it's standard error is

$$\sqrt{\text{var}(b_1) + z^2\ \text{var}(b_3) + 2z\,\text{cov}(b_1, b_3)}$$

  - Thus, if the beta for x is insignificant and for x*z is significant (or vice versa), one cannot infer that the effect of x is insignificant...

What I found less convincing…

- Estimated betas for similar MPP indices (e.g., Qfincont1 and Qfincont2; Qfxreg1 and Qfxreg2) are different
  - This suggests that the additional components in Qfincont2 and Qfxreg2 may have stronger negative effects
  - Would be useful to examine the effect of individual MPPs in addition to indices
- Highly heterogeneous sample—advanced, EM, and developing countries
  - While country FE are included, regressions should also control for per capita income, institutional quality, financial market development/supervision capacity, which may affect capital flows
  - For example, the finding that countries with higher bank ROA have a stronger effect of MPPs may simply be capturing the effect of better financial regulation/supervision capacities (presuming better financial supervision implies higher bank profitability)
  - Slope coefficients (not just intercepts) likely to differ across advanced, EM, and developing countries

What I found less convincing…

- Spillover interactions are too complicated, and the spillover results are not always consistent with the findings for domestic MPPs
  - For example: High ROA in the domestic banking system increases the effectiveness of MPPs ⇒ lower capital inflows/potential for greater spillovers; BUT paper finds that high ROA in the banking system of neighbors reduces spillovers
  - Do MPPs really send a signal? Capital controls generally make headlines, but countries routinely adopt "macroprudential" measures, so do investors really keep track of all these measures?
  - If at all, signaling story should apply more to measures restricting outflows, rather than inflows…

Further Questions…

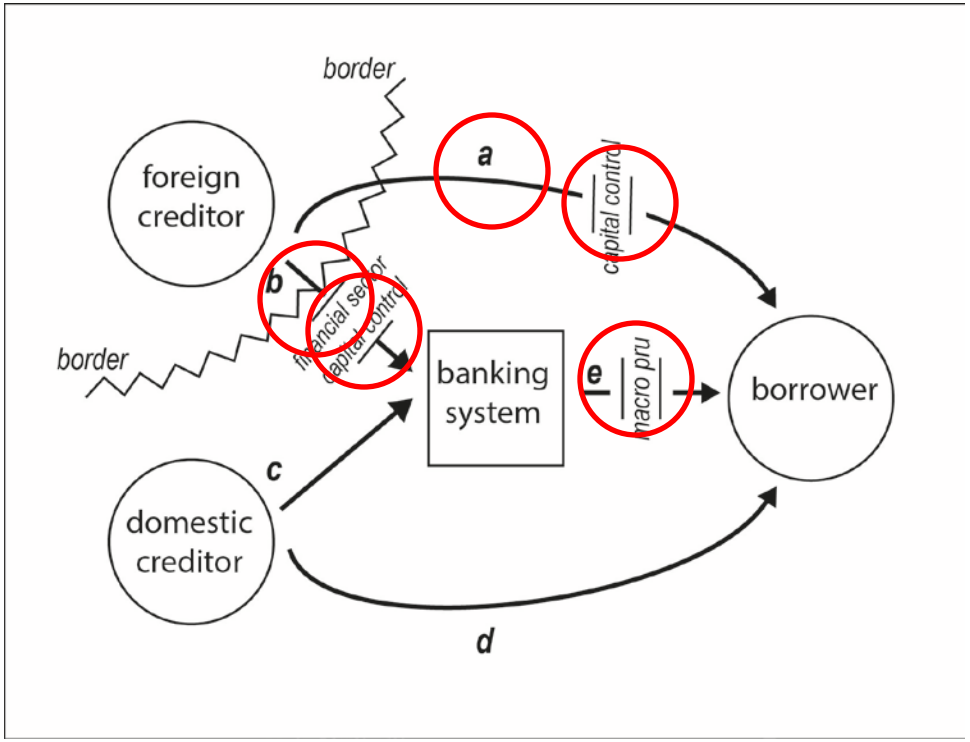
- Why do MPPs have a stronger effect in countries that are growing faster?
  - Is the result an outcome of the positive correlation between flows and growth? (Flows are larger when growth is higher, and countries tend to respond by tightening MPPs to mitigate financial-stability risks—but the MPPs measures in the paper do not reflect the tightening of MPPs, but the presence of the measures)
- Why does a high share of nonresident bank loans reduce the effectiveness of MPPs when MPPs target nonresidents?
  - Is endogeneity at play? Share of nonresident bank loans is likely to be highly correlated with bank flows inducing an upward bias in the estimated coefficient
- In analyzing cross-asset class spillovers, useful to consider portfolio and FDI flows in addition to other (non-bank) investment liabilities

Some further thoughts…

- Growing literature on effectiveness of capital controls/prudential measures (*inter alia*, several papers from Bank of Canada)
- Why do we care?
- Recognize that capital flow surges can pose macroeconomic challenges and financial stability risks:
  - Balance sheet exposures—prudential measures or capital controls to alter composition of flows toward less risky forms of liabilities (FDI, equity, local currency instruments)
  - Flow imbalances—controls (and prudential measures that act like controls) serve as back stop to macro policies (exchange rate/intervention, monetary, fiscal, macroprudential) by curtailing the volume of flows

Balance Sheet Exposures

- At least some empirical evidence that measures can alter the composition of liabilities
- Too much "religion" about capital controls vs. prudential policies
- Optimal choice depends on whether foreign liabilities are inherently more risky (in theory, yes; in practice, may make little difference)
- Whether flows are intermediated by domestic banks
- Practical considerations (and equity considerations e.g., "level playing field" for SMEs)



Flow Imbalances

- Weaker evidence of effectiveness on aggregate flows, especially in time series analysis (basic endogeneity problem)
- Studies that find little or no effect simply imply that existing controls do not appear to have an effect—does not necessarily imply that more stringent controls (higher tax rate) would not have any effect
- And if evidence on composition is correct, then need to believe in full substitution to other forms of liabilities to believe no effectiveness

Do people substitute?

England and Wales: sex-specific suicide rates by mode of death

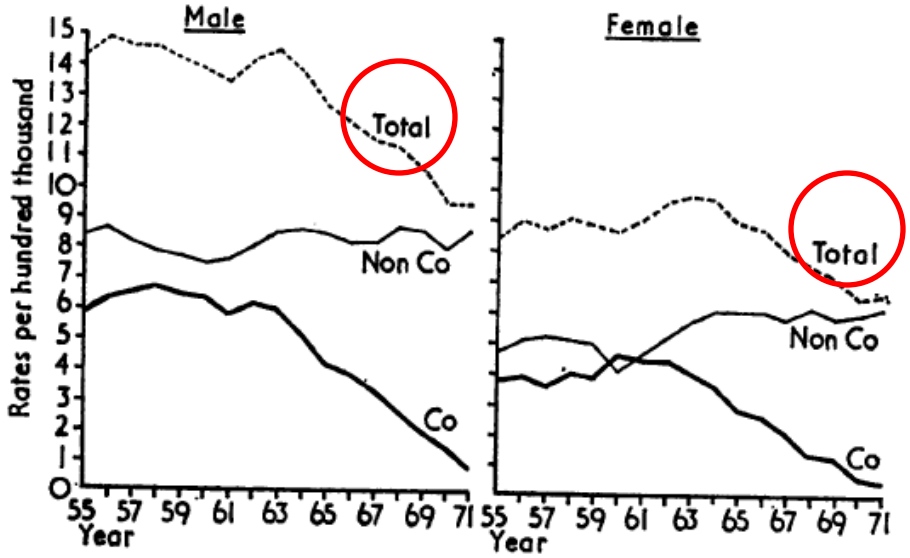


Fig. 4. England and Wales: sex-specific suicide rates by mode of death.

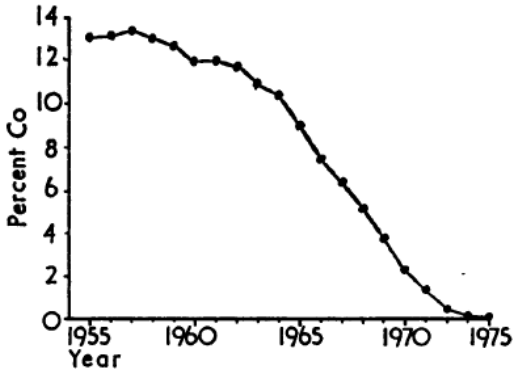


Fig. 3. Percentage of CO in domestic gas, United Kingdom 1955-74.

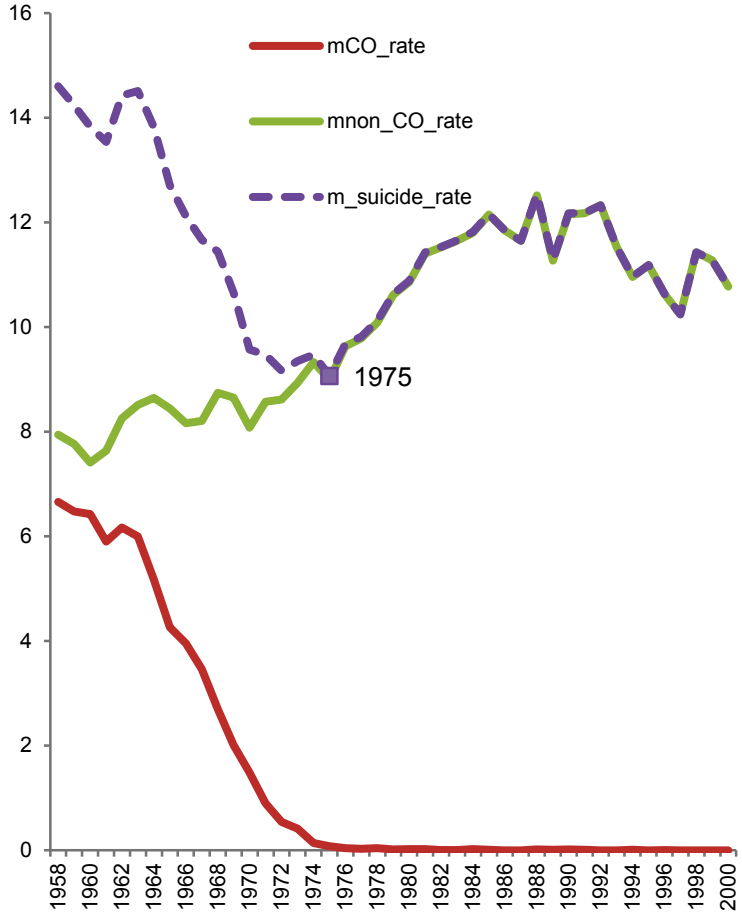
Till 1948, coal gas (10-20 pct CO)
Early 1950s, oil products and naptha-based oil (1.5 pct CO)

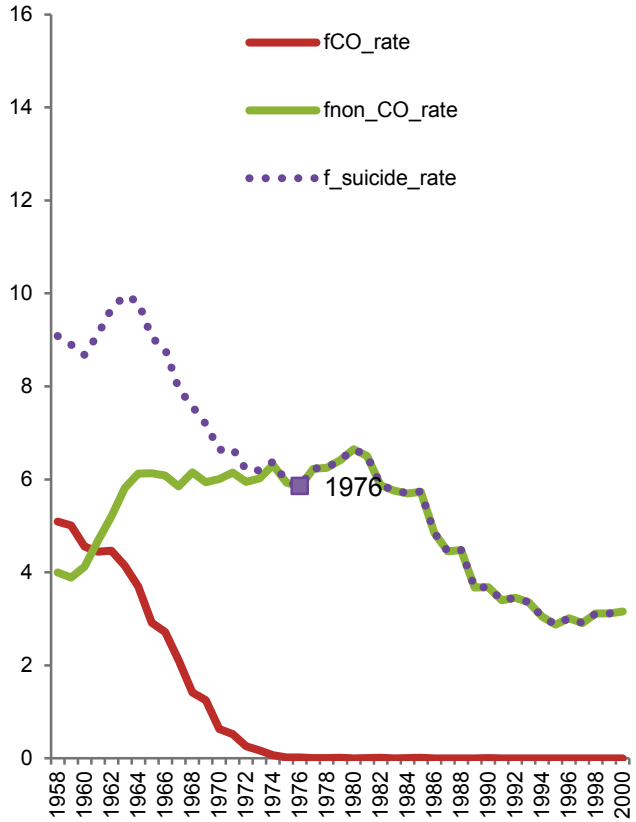
1958-natural gas (CO free)

Source: Kreitman (1976) “The Coal Gas Story” Brit.J. prev. soc. Med (1976), 30, 86-93

Do people substitute?

Figure 4. England and Wales: sex-specific suicide rates by mode of death (extended version).





Multilateral Considerations

- Positive and negative spillovers
- Cannot have multilateral spillovers if measures are ineffective in keeping capital out
- Coordination among recipients (necessary if controls/measures are costly)
- Cooperation between source and recipient (efficient if costs are convex; incentives for source?)
- Spillovers and need for coordination not only for capital controls, but any policy (monetary, fiscal, exchange rate) measure that has impact on flows to the domestic economy

Conclusion

- Nice paper, on a very important topic
- Suggestions to authors:
  - Simplify the discussion—at least present simple results first
  - Differentiate by type of country: advanced (gross flows important), emerging market, developing (net more important)
  - Tell a compelling story for the results
  - Keep up the good work!