"Macro-Prudential Policies: Asian Perspectives"

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Session III: Macro-prudential Measures and Capital Flows

This session will discuss recent macro-prudential measures that a number of economies have adopted as part of their policy response to large and potentially volatile capital inflows. It will also discuss general principles for the design of capital controls and macro-prudential tools to deal with volatile capital flows. These discussions will include a number of critical questions: Have the macro-prudential measures been primarily intended to address financial sector stability concerns or guided by broader macroeconomic stability considerations? What are the relative strengths and limitations of various macro-prudential tools and capital controls in limiting the volatility of capital flows? How do these relate to mitigating excessive domestic credit growth and asset price bubbles?

Capital flows to emerging market economies (EMEs) are recovering from the sharp decline during the global financial crisis, and are projected to continue to pick up in coming years. These flows, and capital mobility more generally, allow countries with limited savings to attract financing for productive investment projects, foster the diversification of investment risk, and contribute to the development of financial markets. In this sense, the benefits from a free flow of capital across borders are similar to those from free trade, and imposing restrictions on capital mobility means foregoing, at least in part, these benefits. Such controls may also give rise to distortions and resource misallocation.

Notwithstanding these benefits, many EMEs are concerned following the crisis about the fragilities that rapid inflows—and herd behavior that contributes to boom-bust cycles—can engender:

- Many of the flows are perceived to be temporary, reflecting interest rate differentials, which may be at least partially reversed when policy interest rates in advanced economies (AEs) return to more normal levels. A rapid reversal could also occur if the global recovery falters and there is a renewed increase in global risk aversion. While larger inflows could be the result of improved fundamentals in EMEs over the last decade, and the relative strength of their economies vis-à-vis AEs, a history of "sudden stop" episodes suggests caution before interpreting these flows as a "structural break."

- Large inflows can complicate macroeconomic policy management, leading to exchange rate appreciation pressures or overshooting, and some loss of monetary policy independence. Particularly if the inflows turn out to be temporary, they may

entail a costly reallocation of productive resources back to the tradable sector as inflows subside and the exchange rate returns to its more normal level.

- Regardless of whether the inflows are temporary, a sudden surge could overwhelm the domestic prudential framework, and wind up fueling asset price bubbles rather than financing worthwhile investments.

Both macroeconomic and prudential concerns may therefore call for a policy response to a surge in capital inflows.

Macroeconomic Concerns

The macroeconomic toolkit that can be brought to bear to manage inflow surges is well known, and includes fiscal policy, monetary policy, exchange rate policy, and foreign exchange market intervention. Clearly the appropriate policy mix is likely to depend on the state of the economy (i.e., how close is it to potential?); the level of reserves (is further accumulation desirable or appropriate?); the scope to allow the currency to strengthen (is the currency undervalued from a multilateral perspective?); and the likely persistence of the inflows (with permanent inflows less likely to warrant a policy response than transitory inflows). The scope to use the different tools will vary markedly in an economy that is overheating and has an overvalued currency from one with spare capacity: in the former, fiscal tightening and sterilized intervention in the foreign exchange market are likely to be warranted, while in the latter, an easing of monetary policy may both attenuate the inflow surge while providing support for domestic economic activity.

In particular country circumstances, however—specifically if an economy is operating near potential, the level of reserves is adequate, the exchange rate is not undervalued, and the flows are likely to be transitory—macroeconomic policy responses may not be available or sufficient to address the challenges posed by increased capital inflows. In such cases, prudential measures and capital controls are a useful part of the policy toolkit to manage inflow surges that amplify macro-financial risks. Tightened prudential measures can strengthen financial stability and reduce inflows intermediated through the financial sector, while inflow controls may be needed when concerns revolve around direct foreign-currency borrowing by unhedged domestic residents. While the precise design of inflow controls will depend on a number of factors (including the administrative capacity that is in place), in general, since the macroeconomic effects depend on aggregate inflows, broad-based controls are more likely to be effective (including because they preclude evasion by "re-labeling").

A significant caveat to the use of capital controls by individual countries relates to the potential for adverse multilateral consequences. In present circumstances, global recovery is dependent on macroeconomic policy adjustment in EMEs, which could be undercut by capital controls, notably in cases where currencies are undervalued. Widespread adoption of controls by EMEs could exacerbate global imbalances, while controls imposed by some

countries could lead others to adopt them also, and even have a chilling longer-term impact on financial globalization and domestic capital market development, with significant output/welfare losses. For these reasons, multilateral dimensions clearly need to be taken into account in assessing the merits of controls at the individual country level.

Prudential Considerations

Large and potentially volatile capital inflows may expose the financial sector to elevated risks through rapid credit growth, asset price bubbles, and sudden stops. Macro-prudential tools can reduce banks' exposures to risky assets and reduce credit growth, thus lessening the macroeconomic risks from asset price bubbles fueled by rapid (or risky forms of) credit.

However, there may be circumstances when macro-prudential measures lack traction. For example, if the concern is direct borrowing abroad in foreign currency by unhedged residents, then prudential measures (which operate on the domestic banking system) will be of little use, and controls on foreign borrowing may be required. If domestic banks are intermediating inflows into foreign currency loans (including because the banks face open FX limits), then limits on domestic lending in foreign exchange to unhedged borrowers may suffice. The latter, while a domestic prudential measure, is also likely to reduce the volume of capital inflows by requiring foreign investors to hold more currency risk.

While the formal distinction between macro-prudential measures and capital controls is clear (the latter implies some discrimination in the treatment of residents versus non residents), in practice the line can become blurred. Likewise, there are a number of domestic macro-prudential policies—such as Loan-to-Value Ratios (LTVs), capital requirements, and "speed limits" on credit growth—that are designed to ensure the stability of the financial system generally (i.e., even when domestically funded), but that can be fine-tuned in order to address fragilities that are amplified by externally funded credit booms. A key question is the degree to which macro-prudential policies are good substitutes for capital controls in reducing the fragilities that can be created by volatile capital inflows, and how the different measures compare in terms of effectiveness and possible distortions to which they give rise.

The appropriate balance between capital controls and domestic macro prudential measures thus depends on the nature of the flows, the relative effectiveness of different types of measures in curtailing excessive credit growth and asset price bubbles, and country-specific circumstances. Inasmuch as capital controls would mainly be targeting the riskiest forms of capital inflows (short-term, foreign currency, and debt), selective controls may be called for—though these do risk greater evasion by re-labeling of the inflow. Preliminary empirical evidence suggests that countries that had in place controls on particularly risky forms of capital inflows (short-term, debt liabilities) fared better in the current global financial crisis than those that did not (see *Capital Inflows: The Role of Controls*, IMF Staff Policy Note, February 2010 at http://www.imf.org/external/pubs/ft/spn/2010/spn1004.pdf; this note also contains an extensive literature survey on the effectiveness of capital controls), but further

analysis—including a comparison of prudential measures and capital controls—is required before more definitive conclusions can be drawn.

Issues for discussion

As capital continues to flow into EMEs, many countries may need to reconsider the appropriateness of their macro-prudential toolkit, including the extent to which capital controls have a place to achieve financial stability objectives, taking account of the macroeconomic implications of such flows. Participants may wish to touch upon the following issues.

- To what extent is the policy response to rapid capital inflows guided by macroeconomic versus financial stability considerations?

- To what extent do rapid capital inflows amplify the risks of domestic credit booms and asset price bubbles, and are they appropriate and effective tools to deploy in containing such risks?

- How do participants read the evidence on the effectiveness of both domestic macroprudential tools and capital controls in reducing the financial stability risks associated with volatile capital inflows?

- Should capital controls, to the degree they are warranted for macroprudential purposes, be broad based or targeted at particular types of flows? What kinds of measure have traction as far as improving the structure of inflows?

- Are domestic macro-prudential measures and capital controls substitutes or complements in stemming large surges in capital inflows?

- Given the criticality of assessing whether inflows are prone to reversal (temporary versus persistent), how do policy makers make that assessment in practice? How do concerns about the level and volatility of capital flows get factored into the overall assessment process of threats to financial stability?

- What are the lessons from the Asian experience (see Table 1) in designing effective policy responses to capital inflow surges?

- Where should authority reside to deploy capital controls for macroprudential purposes?

- How important are multilateral considerations in guiding national policies in the area of managing capital inflow surges?

Table 1. Measures to Manage Capital Flow Volatility

Policy Tool	Recent Country Examples	Motivation/Objective
Limits to direct and indirect FX exposure	**Korea** (June 2010): caps FX forward positions of banks relative to their equity capital. Restricts corporate FX hedging to 100% of export receipts.	Derivatives limits indirectly target reduction in external borrowing.
Increase restrictions on external borrowing	**India** (December 2009):Re-instated interest rate cap on eligible external commercial borrowing that was eliminated during the crisis.	To limit access to foreign credit to best corporate credits and prevent high cost borrowing.
Minimum holding period on central bank bills	**Indonesia** (June 2010): One month holding period instated for both domestic and foreign investors	To limit volatility of flows. Central bank bills had been subject to sharp shifts in positions relative to global risk appetite, as they were used as a carry trade vehicle. Holding period limits the volatility of flows on exit from positions.
Limited foreign access to central bank instruments	**Peru**: (2010) Increased fee on foreign purchases of central bank liquidity draining instruments to 400 basis points, and (2009) banned foreign purchases of central bank bills. Also (2009) increased reserve requirements all deposits, with those on local currency deposits held by foreigners hiked to 120 percent. Increased the reserve requirement on other foreign liabilities with maturity less than 2 years to 75 percent.	To reduce inflows and limit credit growth. Central bank CDs, largely used to sterilize FX intervention, were a favored vehicle for carry trades.
Other bans on foreign access	**Taiwan POC** (Nov. 2009): Financial Supervisory Commission barred access to time deposit accounts for foreign investors.	To dampen speculative flows. Time deposits are one avenue for carry trades/ currency speculation.
Tax on portfolio inflows	**Brazil** (Oct. 2009): Imposed 2 percent tax on portfolio inflows	To slow inflows. Some studies show that these types of controls might serve to lengthen maturity of inflows, but such effects may be due to misreporting of inflows.
Real estate market measures	**Hong Kong SAR** (Oct. 2009): Mortgages for luxury property capped at 60 percent LTV ratio. Max. loan amt for non-luxury property capped at US$1.5 billion, stamp duty on sales increased. Guidance on mortgage rates.	To curb real estate speculation, in part due to inflows from mainland, particularly at top end of market.
	Korea (2009): Ceiling on LTV ratios lowered in Seoul.	To dampen real estate prices.
	Singapore (September 2009, Feb, and August 2010): Min. holding period on private residential property raised to 3 years. Cap on LTV ratio for mortgage lending lowered for second homes. Interest-only loans banned.	Series of incremental measures target residential property speculation amid signs of overheating.
	India (Oct 2009): Increase in provisioning requirements for real estate credit. (Jan, Mar. April 2010) incrementally increased required reserves for banks.	To address potential risks in banking sector from recovery of credit growth.
	China (2010): Taxes on resale of properties within five years increased. Lowered LTV ratios for 2nd or 3rd homes, raised down payments requirements. Mandated increase in mortgage rates for second homes. Property tax being considered.	To lessen speculative activity by lowering transaction volumes and leveling off prices.

Sources: IMF, *Asia and Pacific Regional Economic Outlook* , Spring 2010; and IMF, *Global Financial Stability Report* , Spring 2010. Authorities.