

# Managing Capital Flows: What Tools to Use?

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The use of capital controls is an old issue. It arose in the 1930s and is steeped with ideological overtones. It sparked controversy even at the inception of the International Monetary Fund (IMF). Two of the IMF's founders issued the following statements as regards the subject of capital flow restrictions:

*"The advocacy of a control of capital movements must not be taken to mean that the era of international investment should be brought to an end. On the contrary, the system contemplated should greatly facilitate the restoration of international loans and credits for legitimate purposes."* – John Maynard Keynes

*"The task before us is not to prohibit instruments of control but to develop those measures of control, those policies of administering such control, as will be the most effective in obtaining the objectives of world-wide sustained prosperity"* – Harry Dexter White

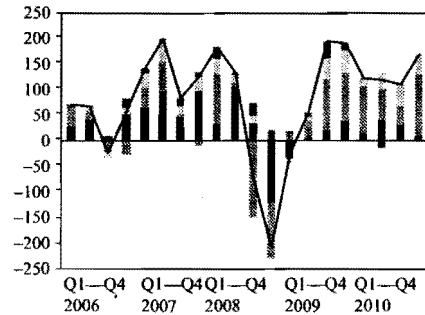
The subject of capital controls also presents technically complicated considerations that require further research so as to develop a sound framework for their use. The option of employing capital controls came in the aftermath of the 1997 Asian financial crisis which highlighted the role played by sudden stops and reversals of capital flows. Escalating magnitude and volatility of capital flows were likewise observed in the run-up to the 2008 global financial crisis when reversals occurred once again as capital took safe haven in the US given global macroeconomic risk. With the resurgence of capital flows after the 2008 crisis, the focus is once again shifting to the use of capital controls as a measure to mitigate risks arising from financial vulnerability. The following charts illustrate the extent of magnitude and volatility of capital flows to Latin America, Emerging Europe, and Emerging Asia:

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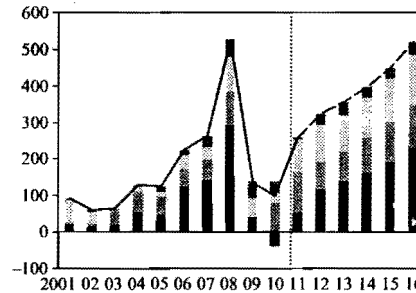
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Net Quarterly Capital Flows into EMEs, 2006Q1–2010Q4  
(billions of US dollars)

— Emerging Europe    ▨ Emerging Asia  
 ▨ Latin America    — Other  
 — Net Capital Flows

PRC = People's Republic of China.

Source: International Financial Statistics.

Net Annual Capital Flows into EMEs, 2001–2016  
(billions of US dollars)

— Emerging Europe    ▨ Emerging Asia Excl. PRC  
 ▨ Latin America    — Other  
 — Net Capital Flows    - - - WEO Projections

These flows were substantial enough to cause exchange market pressure which together with accommodative monetary policies in the US led to allegations of “currency wars” in 2010. At the center of the debate had been the employment of capital controls by some emerging economies to allegedly prevent currency appreciation.

Buoyant economies combined with increased liquidity brought about the capital flows, which had macroeconomic impact on emerging economies as seen in the following table.

Inflation and Credit Growth: Selected Cases

	Magnitude of Net Inflows <sup>a</sup> (% of GDP) (2009Q1– 2011Q1)	Maximum Net Inflows <sup>b</sup> (% of GDP) (2009Q1– 2011Q1)	Composition of Gross Inflows <sup>c</sup> Black = Portfolio Light grey = Other Dark grey = FDI	Inflation <sup>d</sup> (%, y/y) (2009M1– 2011M4)	Real Credit Growth <sup>e</sup> (%, y/y) (2009M1– 2011M2)
Brazil	8.16	14.61	●●●●●	5.14	10.35
Indonesia	5.95	12.18	●●●●●	5.25	8.78
Korea, Rep. of	7.69	15.06	●●●●●	3.08	1.86
Peru	7.28	12.50	●●●●●	2.30	10.78
South Africa	6.02	13.02	●●●●●	5.46	-0.68
Thailand	9.06	19.00	●●●●●	1.53	4.84
Turkey	3.28	11.35	●●●●●	6.74	13.39

<sup>a</sup> Average net financial flow to GDP (in percent). For Peru and Thailand, data end in 2010Q2 and 2010Q4, respectively.

<sup>b</sup> Maximum net financial flow to GDP (in percent) in 2009Q1 and 2011Q1. For Peru and Thailand, data end in 2010Q2 and 2010Q4, respectively. Quarters in parentheses refer to the quarter in which net capital inflow was the largest.

<sup>c</sup> Composition of gross inflows in 2010.

<sup>d</sup> Average year-on-year inflation over 2009M1 to 2011M4.

<sup>e</sup> Average year-on-year real credit growth over 2009M1 to 2011M2.

Source: IMFs, IFS, INS, and WEO databases.

The magnitude of the inflows and the increased bias toward portfolio investments are viewed as a source of risk to financial stability. Indeed, there are initial indications that asset price bubbles started to form in some emerging economies in 2011.

The increasing acceptability of capital controls as a tool for managing macroeconomic and prudential concerns needs a reexamination of old issues in order to develop “intelligent” controls. Ostry et al. (2010)<sup>1</sup> identified a set of circumstances in which capital controls may be used to contain macroeconomic risk. They note that capital controls are appropriate when a currency is appreciating and is not undervalued, reserves are more than adequate, inflation is increasing such that policy rates cannot be lowered and fiscal policy is consistent with internal balance requirements and there is a sustainable level of long-term public debt. However, capital controls could also be used for mitigating financial stability risks in cases where the prudential framework is insufficient. The following table shows that a number of countries implemented capital controls in conjunction with other measures to mitigate the resurgence of capital inflows after the 2008 global financial crisis.

	Currency Appreciation <sup>a</sup> (%) (2009Q1–2011Q1)	Reserve Increase <sup>b</sup> (percentage points) (2008Q4–2010Q4)	Policy Rate <sup>c</sup>	Fiscal Tightening <sup>d</sup> (Structural Balance)	Prudential Policies/Capital Controls
Brazil	29.91	2.10	Raised	No	Yes
Indonesia	16.41	3.58	Raised	Yes	Yes
Korea, Rep. of	15.84	7.90	Raised	Yes	Yes
Peru	4.06	4.40	Raised	No	Yes
South Africa	30.30	-0.05	Lowered	Yes	No*
Thailand	3.06	12.44	Raised	No	Yes
Turkey	-2.32	1.64	Lowered	No	Yes

<sup>a</sup> Cumulative percentage change in NEER from 2009Q1 to 2011Q1.

<sup>b</sup> Change in reserves-to-GDP ratio from end-2008 to end 2010.

<sup>c</sup> Monetary policy is the change in policy rates from 2009Q3 to 2011Q1.

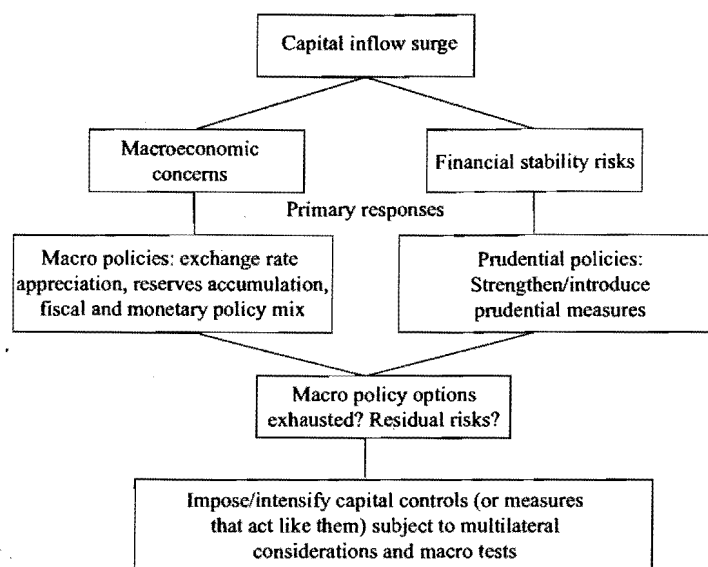
<sup>d</sup> Fiscal policy is the change in cyclically adjusted fiscal stance between 2009 and 2010.

\*South Africa has liberalized capital controls on outflows in response to the surge in capital inflow.

Source: IMFs, INS, and WEO databases, and national sources.

The use of capital controls also depends on the nature of the underlying risks. Macroeconomic risks include overvalued currencies, undesirable reserve accumulation, rising inflation and persistent inflationary pressure, and a limited scope for fiscal tightening. Prudential risks will have to be mitigated by macroprudential policies. The role of capital controls is summarized in the following flow chart:

<sup>1</sup> Jonathan D. Ostry, Atish R. Ghosh, Karl Habermeier, Marcos Chamon, Mahvash S. Qureshi, and Dennis B.S. Reinhardt. 2010. Capital Inflows: The Role of Capital Controls. IMF Staff Position Note 10/04, IMF, Washington, DC.



When both macroeconomic and prudential considerations suggest that capital controls are appropriate, then there is no conflict on the use of capital controls. When macroprudential concerns dictate the use of capital controls while prudential controls do not, there is still no conflict in principle albeit some design conflicts may arise. In this case, capital controls may possibly be used as transitional measures if there are lags in the effects of macro policy tools. A conflict occurs when macroeconomic conditions dictate that capital controls should not be used, but prudential considerations require it. An example of such a case is when a country has large current account surpluses, an undervalued currency, and nevertheless has substantial inflows of capital. A prescription in such a case is to allow the exchange rate to rise to its multilaterally-consistent level before contemplating the use of capital controls. Such a move will help to abate the excessive inflows, and mitigate both macroeconomic and prudential risks.

### The Policy Toolbox

Ostry et al. (2011) categorize the available tools for implementing macroprudential policies into the following: FX-related prudential measures, other prudential measures, and capital controls. FX-related measures discriminate capital flows according to currency and not residency. These are applied to regulated financial institutions, primarily banks. Examples of such measures are limits on banks' open FX positions and limits on FX lending by banks. Other prudential measures include loan-to-value ratios, limits on credit growth and sector lending, dynamic loan loss provisions, and countercyclical capital

requirements. These measures tend to reduce systemic risk without discriminating against currency or residency. Lastly, capital controls discriminate flows based on residency and can either be economy-wide or sector specific. They can also be designed to cover all flows, be they sector specific or industry specific. Examples of capital controls include withholding taxes on capital flows, unremunerated reserve requirements, and outright limits or bans.

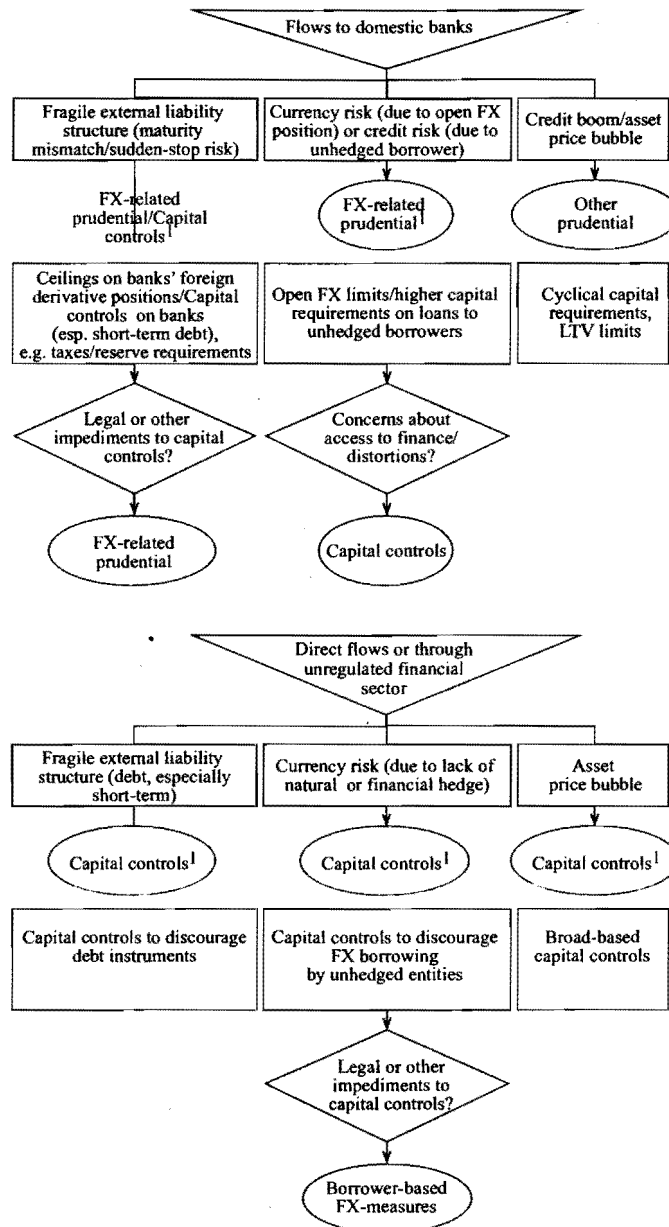
*It is important to match the different risk categories to the appropriate tools.* A key consideration is whether capital flows are being intermediated in the regulated financial system or not. For example, relying solely on prudential policies and not using capital controls may be argued for the case where all flows are fully intermediated through the regulated bank sector so that regulators should simply "lean" on the banks. The need for thorough investigation is however highlighted in this case since there is evidence that small and medium enterprises are predominantly dependent on banks for financing, and merely leaning on banks could lead to a substantial reduction in financial access of smaller firms. A different case is when capital flows do not pass through the regulated finance sector, in which case the use of capital controls may indeed be appropriate, and needed given the absence of other effective tools.

#### **Considerations on the Design of Capital Controls**

The design of capital controls must be governed by principles of effectiveness and efficiency. Effectiveness means that the intended aim is achieved and the control measure is not easily circumvented. Efficiency requires that measures be designed in such a way that it minimizes distortions and that the scope for lack transparency or arbitrary enforcement is negligible.

Under the above, other factors also have to be considered. The persistence of flows would have an impact on the choice of tools. When concerns on the effects of capital flows are on macroeconomic risk mitigation, then capital controls should only be imposed on temporary and not permanent capital flows. On the other hand, if the focus is on financial stability risks, then capital controls could likewise be imposed on persistent flows.

Another design consideration is on the scope of control. Broad-based controls are typically more appropriate for macroeconomic concerns, whereas targeted controls are more appropriate for prudential considerations. Note, however, that avenues for circumvention must be taken into consideration in the design of targeted measures.



<sup>1</sup>Once macro policy space exhausted, and taking due account of multilateral considerations.

The basis of control dictates whether a price-based or quantity-based measure is appropriate. Price based measures are favored as these are easier to adjust cyclically and easier to administer. These are also typically more appropriate for macroeconomic risk mitigation. For prudential concerns, quantity-based measures may be more appropriate in the presence of information asymmetries as regards the private sector's response to the imposition of capital controls.

Lastly, administrative and institutional capacity is important and should be considered in the choice of capital control measures.

#### **Recommendations on the Use of Capital Controls**

So-called orthodox policy tools—macroeconomic and macroprudential policies—remain an integral part of the policy toolkit to cope with volatile capital flows. Capital controls and prudential measures should address specific risks. Capital controls are more appropriate in cases where cross-border flows are not intermediated through the regulated bank sector and are beyond the coverage of prudential regulation. The design of capital control measures and the decision to employ them should also be guided by administrative and institutional capacity.