



Resurgent Capital Flows to Developing Countries: Policies to Improve Their Impact

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Overview

Some developing countries have reinstated controls on capital inflows and related policies to deal with the resurgence of capital inflows after the global financial crisis of 2008–09. The policy objective is to limit the disruptions from inflows, especially from a reversal of volatile, hot-money inflows later. The policy approach is similar to the on-off pattern of temporary capital inflow controls during previous large capital inflows to developing countries, within a general trend of liberalization of controls on capital inflows since the 1980s. Although capital controls on *outflows* have often been criticized for their distortions and the policies they support, the controls on *inflows* are being undertaken by fairly liberalized economies, in response to shifts in global conditions. Even the IMF has eased its position on such policies.¹

1. See IMF (2012: 1–2): “For countries that have to manage the macroeconomic and financial stability risks associated with inflow surges or disruptive outflows, a key role needs to be played by macroeconomic policies, including monetary, fiscal, and exchange rate management, as well as by sound financial supervision and regulation and strong institutions. In certain circumstances, capital flow management measures can be useful. They should not, however, substitute for warranted macroeconomic adjustment.”

This Policy Note comments on the resurgence of capital inflow controls and suggests that in many cases, greater reliance on the foreign exchange market may be more effective in limiting volatile hot-money inflows and disruptions. The evidence suggests that capital controls implemented while maintaining the exchange rate and sterilizing central bank purchases of foreign exchange via monetary policy does not reduce inflows much, and may even encourage them, while complicating macroeconomic management. Greater reliance on the foreign exchange market, in a well-managed economy, may be more effective at limiting inflows of hot-money and making monetary policy and prudential financial policy more effective. Other, less costly policies may be used to offset costs of a more variable exchange rate.

The Recent Resurgence of Private Capital Flows

Net private capital flows to developing countries in 2010 surged to almost the same levels as in 2007 and were nearly 70 percent larger than in 2009, including unusually large increases of short-term debt (World Bank 2013). In 2011 and 2012 net flows were somewhat less, reflecting some tightening

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in European financial markets. Of the total inflows, foreign direct investment (FDI), including reinvestment, represented about 60 percent; short-term debt and bank lending totaled about 20 percent; and bond flows and portfolio equity the rest. The BRICs (Brazil, the Russian Federation, India, China, and South Africa) dominate the recipient list of capital flows to developing countries, but other countries such as Colombia, Peru, South Africa, Thailand, and Turkey have received large flows (relative to their GDP) recently.

The large capital flows to developing countries since the global crisis seem mainly to reflect investors' search for returns in the context of expansionary monetary policy by advanced economies, low interest rates, weak recoveries, and lower ratings for their public and private bonds. To carry out expansionary monetary policies, central banks have purchased substantial quantities of government and government-guaranteed debt. As a result, the assets of the U.S. Federal Reserve, the European Central Bank, and the Bank of England have all increased by about 50 percent or more since September 2009. And now the Bank of Japan has joined the group with massive asset purchases.

These policies of industrial countries' central banks and, as a consequence, the capital flows to developing countries seem likely to continue. For example, in December 2012 the Federal Reserve announced a continuation of its expansionary monetary policy as long as unemployment remained above 6.5 percent and inflation remained below 2.5 percent. The European Central Bank, in July 2012, announced it would do "whatever was necessary" to preserve the eurozone. And Japan's central bank is expected to pursue a similar policy under its new president. Thus, barring a new financial or economic crisis, these capital flows to developing countries seem likely to continue.

The Benefits of and Issues with Capital Inflows

The principal benefit of capital inflows to developing countries is straightforward: the recipient countries can consume and invest more than they produce, by financing an increased current account deficit. A real exchange rate appreciation (either through a nominal exchange rate appreciation or a rise in domestic prices) that discourages producers of exports and import substitutes is the market mechanism by which this process occurs. Unless a larger current account deficit occurs, the benefits of capital inflows are likely to be small. Various studies have disagreed on the growth impact of capital inflows, but to some extent the disagreement depends on differences in the uses of the capital inflow. An increase in international reserves as a result of a capital inflow, for example, is not likely to lead to much growth compared to an increase in the current account deficit. Furthermore, limited governance capacity of the country in handling the capital inflow may reduce its growth impact.

At the same time, there are three negative aspects associated with capital inflows. First, their negative impact on traded goods producers has always been one of the main disadvantages of large capital inflows. In particular, the industrial countries' expansionary monetary policy since 2009 has contributed to a depreciation of their currencies against those of developing countries—that is, an appreciation of developing countries' currencies. This appreciation has led to some complaints of a "currency war," and has been one factor that has led to recipient countries instituting barriers to slow capital inflows and protect their traded goods producers.

A second issue related to capital inflows has been their permanence and corresponding impact on the domestic financial sector,

particularly the variability of hot money. Initially, policy makers may see the inflows as desirable and a vindication of liberalization policies. But, as time passes, concerns rise. Inflows into even a relatively large developing country financial market can cause bubbles in real estate and consumer credit, and financial sector stress. All these impacts can turn into crises, especially when the inflows are reversed as a result of investors' growing concerns about the recipient country, changes in the policies of that country, and/or changes in policies in the industrial countries. History records numerous well-known developing country crises associated with the withdrawal of large capital inflows. Examples include the crises related to the petro-dollar boom-bust of the 1970s and early 1980s, particularly in Latin America; the crises in Mexico, East Asia, and Russia from 1994–98; and the Argentine crisis in 2001. Most recently we see the effects on developing countries, Eastern Europe, and the Southern tier of the EU of the massive inflows in 2007 followed by the global financial crisis of 2008–09. The causes of these episodes differ and relate to both shifts in advanced country policies and developments in the countries that suffered the crises. Correspondingly, the exact timing of the reversal of capital flows and the crises in each country differ. Nonetheless, this history has probably increased concern about how to manage capital inflows.

Third, policy makers naturally are concerned about their potential loss of policy autonomy as a result of capital inflows, particularly regarding monetary policy, inflation, and exchange rates. Their concerns with inflation are obvious. But policy makers also have often displayed a preference for relatively stable exchange rates (see Calvo and Reinhart [2002]). As noted earlier, unless some real appreciation occurs that generates a larger current account

deficit, the benefits of capital inflows will be limited. But volatile capital flows may lead to volatile exchange rates, with negative impacts on the domestic economy and costs to producers of tradeable goods.

Moreover, unless the currency is allowed to float in the foreign exchange market, policy makers have to buy and sell foreign exchange to maintain the exchange rate. And such purchases and sales affect the stock of money, inflation, and interest rates. This constraint on policy makers is the simplest form of the so-called "trilemma": that a country cannot maintain a fixed exchange rate, control over the money stock, and an open capital account (see, for example, the discussion in Obstfeld et al. [2005]). Thus, if the central bank wanted to tighten monetary policy by raising interest rates, then, under an open account, capital would tend to flow into the country and limit the rise in interest rates and the impact of the central bank's policy. Of course, in practice, the trilemma is not perfect; it neglects frictions such as risk premia, imperfect markets, and imperfect capital mobility. Nonetheless, the trilemma can pose a real limit on the effectiveness of policies.

In sum, these three issues confront policy makers with a real challenge: capital inflows provide benefits but hurt tradeable goods producers, generate risks because of their volatility, and limit policy autonomy. As a result policy makers have developed various policies to avoid letting the exchange rate appreciate and deal with capital flows and their impact. These are discussed below.

Policies to Limit Capital Inflows and Ease Their Impact

Developing countries have mainly used monetary policy, prudential financial policies, and capital inflow control policies to limit capital inflows and reduce their im-

pacts. Monetary and prudential policies are aimed at limiting the potential negative impacts of capital inflows; they may indirectly affect the volume of capital flows. Capital controls differ from monetary and prudential policies in being aimed directly at capital inflows and their composition, particularly their tenure.²

Monetary policies regarding capital inflows have involved standard monetary tools to limit expansion of the money base and credit. One of the most common policies to deal with capital inflows has been the (combined) policy of “sterilization.” This involves central bank purchases of foreign exchange to limit exchange rate appreciation, combined with its open market sales of debt to offset the impact on the money supply of these purchases. Sterilization can involve sales of either central bank debt or government debt held by the central bank. Such sterilization has been used by Peru, most recently in 2012, and earlier in Chile, Colombia, the Czech Republic, Indonesia, the Republic of Korea, Spain, Thailand, and Uganda.

Sterilization has been reasonably effective in limiting monetary growth, but it creates some problems. In particular, it may increase the incentives for capital inflows, particularly short-term flows. The open market sale of central bank or government debt tends to leave interest rates unchanged or even raises them and leaves expectations of appreciation relatively unchanged. Moreover, sterilization generates an attractive liability for investors because it is secure, particularly if the instrument is central bank debt. The result of these incentives are consistent with the finding of Montiel and Reinhart (1999), who find a significant *positive* impact of sterilization on short-term

2. Other policies to reduce capital inflows include liberalizing controls on outflows and fiscal policies; these are not discussed here because they generally are considered to have minimum effect and space limitations.

capital inflows in selected countries during the 1990s, but no significant impact on other capital inflows. In other words, short-term investors may be attracted by the positive impact of sterilization on interest rates in general, the interest rate and security of the instrument used by the central bank, and the possibility that sterilization will lead to an appreciation in the future.³

A second issue related to sterilization is the potential distraction from the central bank’s monetary policy objectives as a result of concerns about paying the not-insignificant quasi-fiscal deficit of the debt,⁴ rolling over the debt that was used for sterilization, and eventually unwinding the debt. In some countries, these distractions have been avoided by using government debt to sterilize the inflows. However, this approach depends on arrangements between the government and the central bank regarding the central bank’s holdings and management of government debt.

Increases in general reserve requirements have also been used limit the monetary and inflationary impacts of capital

3. A few countries have prohibited purchase of central bank debt by foreigners, but this ban is difficult to enforce. A few other countries have used central bank deposits to limit monetary growth. Despite these policies, the sterilization would tend to keep interest rates up, compared to simply purchasing foreign exchange. A few countries have lowered the policy rate and the rate paid on central bank deposits, to reduce the attraction of the market to capital inflows. However, lowering these interest rates would tend to add to demand pressures in country.

4. Reinhart and Reinhart (1998) cite Rodriguez (1992), who suggests that

“the central bank losses associated with Colombia’s sterilization efforts during 1991 amounted to 0.5 to 0.7 percent of GDP. Kiguel and Leiderman (1993) indicate that during 1990 to mid-1992 Chile’s central bank losses due to sterilization policies were about 1.4 percent of GDP. Gurria (1993) estimates that the quasi-fiscal losses for Mexico were in the 0.2 to 0.4 percent per annum range during 1990-1992. Central bank losses in Indonesia, Malaysia, and Sri Lanka have also been nontrivial.”

inflows, for example in Peru recently and earlier in Colombia and the Korea. Their impact is seen on domestic as well as foreign-financed credit (reserve requirements solely on capital inflows are discussed below). However, increasing reserve requirements tends to increase the spread between bank lending and borrowing rates. This increased spread encourages direct lending by foreigners to borrowers, as well as their direct purchases of central bank, government, and private debt, at the expense of loans to banks. Such capital inflows have grown recently. Hence, increased reserve requirements may not have much impact on the volume of capital inflows, particularly given the development of the domestic capital market in many emerging markets. Finally, larger reserve requirements may put pressure on weaker banks, another negative impact of the policies to avoid exchange rate appreciation.

General prudential financial policies, such as limiting loan-to-value ratios, and raising risk weights, capital requirements, and liquidity requirements (for example, Korea and Peru recently), can be used to slow down credit growth and reduce systemic financial sector risks arising from capital inflows. Such policies are particularly appropriate in areas such as construction loans, mortgages, and consumer credit that tend to expand with capital inflows. Other prudential financial policies may be more directly focused on capital inflows. For example, measures that limit foreign currency exposure of banks were enacted by Indonesia in 1991, Thailand in 1988–90, Croatia in 2004–08, and recently in Peru. Another policy example is limits on lending in foreign currency to unhedged domestic borrowers. The impact of these prudential policies on capital flows is complicated in countries that are “dollarized” or “euroized,” because it is difficult to determine whether the source of

the funds is local or international. Moreover, prudential regulations are generally aimed at financial institutions and have a limited effect on capital inflows directly to markets. Broadly speaking, analyses of cases of increased prudential measures suggest that they are unlikely to have a major impact on the volume of capital inflows, but they may affect the composition of inflows in terms of maturity and debts by banks to foreign investors.

Capital Controls

Capital controls on inflows usually have been applied in countries with relatively open capital accounts, most frequently in Latin America and East Asia. These controls take a variety of forms, including the following:

- Straightforward taxes or withholding taxes on transactions, foreign borrowing, and foreign investment in local bonds (for example, Brazil in 2009–12 and Thailand in 2010)
- Controls on swap and forward-cover transactions (for example, Indonesia, Malaysia, and the Philippines in the early 1990s)
- Minimum offshore borrowing or holding periods (for example, Indonesia in 2010 and Thailand in 1996)
- Unremunerated reserve requirements on investments of less than a minimum holding period and higher reserve requirements for foreign currency liabilities (for example, Chile in 1991–98 and Peru recently)

Note that the effectiveness of controls on capital inflows, as well as prudential policies, depends on countries’ implementation capacity (IMF 2010). Markets will tend to adjust to avoid controls. Even in Chile, where the controls are generally felt to have significantly increased the maturity of the

inflows, Edwards (1999) and Valdes-Prieto and Soto (cited in Mague et al. [2011]) note that the private sector found ways of avoiding the controls—for example, by misstating the purpose of the inflow. Nevertheless, Chile avoided most of the global financial crisis in the 1990s.

Studies of controls on capital inflows generally have found a limited impact on the volume of capital inflows, beginning with the classic study by Edwards (1999) of the Chilean controls of the 1990s. According to Magud, Reinhart, and Rogoff (2011: 21–22), “Capital controls on inflows, however, seem not to reduce the volume of net flows.” According to the Ostry et al. (2010: 14, box 1), “In general, capital controls are found to have little impact on the total volume of capital inflows and thus on currency appreciation.” Perhaps this result reflects the fact that the controls do not change the basic incentives determining the inflows—that is, the relative interest rates and expectations of appreciation. In particular, although the controls may tend to slow the inflows, they may simultaneously (all other things being equal) increase investors’ expectations of an appreciation and attract more inflows. As with sterilization, the expectations effect occurs because the problems with controls may sooner or later lead to their removal. One factor that may retard capital inflows, related to capital controls, is the difficulty in repatriating investments.

The Market Alternative

The policies discussed above seem to have limited impact on the volume of inflows and also create policy-making complications. This raises the question of whether greater reliance on the foreign exchange market is a more desirable option to limit the impact of capital inflows. The appreciation of the exchange market would create problems for tradeable goods producers, of course.

However, a policy of a more market-determined exchange rate would create greater autonomy for monetary policy, reduce central banks’ problems of quasi-fiscal deficits and rollovers related to sterilization, and reduce the problems associated with higher reserve requirements. It would also require foreign investors to forecast and deal with other foreign investors, rather than forecast government policy, which may be an easier task, and thereby perhaps reduce volatile, hot-money inflows.

In particular, one possible policy would be a wider band for central bank intervention in the foreign exchange market and smoother, more market-related movements in the exchange rate (or mid-point of the band) over time. Such policies have been used from time to time, to both absorb capital inflows and outflows.⁵ However, the experience with such policies may not be fully applicable, as they were often used when substantial inflows or outflows were expected or occurring, and the adoption of such policies may themselves have affected market expectations.

In either case, the central bank should limit its interventions and allow the market to reflect more fully the interactions of private traders. The central bank also should avoid easily forecasted strategies for any interventions it makes,⁶ to avoid encouraging hot-money inflows and facilitating profitable, one-way bets on a forecast of government actions. Such an approach will tend to encourage private traders on both the buy and sell sides of the market. A wider band would also limit the monetary impact of the capital flows, by reducing the need for central bank intervention in the foreign

5. See Reinhart and Reinhart (1998), Table 6.

6. For example, making large central bank interventions in the foreign exchange market at the end of the trading day can increase the possibility of making profitable trades at the expense of the government.

exchange market. For example, purchase of local currency in the foreign exchange market would entail a decline in holdings by one private party and a rise in holdings by another party, rather than an expansion of the money base by the government sales. Correspondingly, it would reduce the need for sterilization with the various issues and problems described above, and increase the independence of monetary policy.

Care would of course be needed in introducing a wider band or a more freely determined exchange rate, to avoid creating negative expectations, as noted above. Variations within the band reflecting government policy, and moving the midpoint of the band from time to time, need to be done carefully, to avoid affecting private expectations.

Variance within the band and appreciation of the exchange rate will create some costs for exporters, importers, and producers of import substitutes. This is a special issue for those with prices that are largely fixed in external markets in foreign currency and those with a high percentage of costs in local currency. Of course, the intervention of the government to limit these costs should be measured against the downsides. As discussed, these include the government's costs of maintaining large international

reserves to intervene in order to stabilize the exchange rate, and the effects of using controls (sterilization) on capital inflows. To ease some of the problems created for tradeable producers, the government might support the development of a forward currency exchange market for them.

Conclusions

Recent expansionary monetary policy in industrial countries has led to large capital inflows to developing countries, particularly to emerging market economies. Recipients have used various policies to manage these flows, including purchases of foreign exchange combined with sterilization of the purchases through open-market operations to limit monetary growth, increases in reserve requirements, prudential financial measures, and controls on capital inflows such as taxes and unremunerated reserve requirements based on tenure of the inflow. Others countries like Brazil have used capital import taxes to slow flows, usually to little avail. These policies, once frowned upon by the IMF, are now seen as viable tools. It is argued in this note that neither controls nor intervention cum sterilization are necessarily preferable to a managed appreciation of the exchange rate.

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