



MANAGING CAPITAL FLOW VOLATILITY: THE DESIGN OF THE IMF'S APPROACH

RECENT CONCEPTUAL AND EMPIRICAL WORK⁹

The IMF's work culminating in the adoption of the Institutional View played an important part in the shift in professional opinion toward greater openness to the use of capital account measures as a policy tool. The work of many in the early 2010s highlighted economic risks associated with exposure to volatile capital flows and the possible role of capital account measures to address such risks. The Fund contributed significantly both through conceptual analysis and by bringing together the experience of countries using such measures.¹⁰ This work influenced the thinking of the economics profession and positioned the Fund as an intellectual leader on capital flow policy. The IV's approach placing capital flow management policies in the context of containing financial risks and maintaining macroeconomic stability is well aligned with the literature on the topic.

That said, recent academic research has further advanced understanding of the mechanisms through which capital account measures can reduce financial risks and help stabilize macroeconomic conditions. The emerging market financial crises of the 1990s underlined the need for a new class of models to understand capital flows and how these may lead to balance sheet vulnerabilities and eventually even crises. Building on insights by Calvo (1998) and Krugman (1999), recent work shows that the balance sheet and financial amplification effects inherent in such episodes arise because individual investors and borrowers do not internalize their contribution to these effects, leading to “pecuniary externalities.”¹¹ For example, individual borrowers who tap into foreign capital “excessively” do not take into account their contributions to the growing financial risk posed to the country as a whole. Similarly, actions by individuals to unwind their positions in the midst of a crisis do not account for their impact on the depreciation of the country's exchange rate and the consequent financial amplification of the effects of the crisis, implying “aggregate demand” externalities. Capital account measures can serve to adjust investor incentives in a way that modulates capital inflows in good times to lower the risk of crises or to mitigate the balance sheet and aggregate demand effects of crises that do nonetheless occur. Such measures can be particularly useful if macroeconomic stabilization policies such as interest rate and exchange rate adjustments are only partially effective.

A separate line of research has suggested that capital account measures can be useful to increase the degree of monetary autonomy of countries in a financially integrated world. A standard result in international macroeconomics—the “policy trilemma”—suggests

⁹ This chapter draws on background papers by Korinek (2020) and Montiel (2020).

¹⁰ Ghosh, Ostry, and Qureshi (2017) collects several papers by IMF authors and provides extensive references to work done by others at the Fund, while work outside the Fund is summarized in Stiglitz and Gurkaynak (2015).

¹¹ See Jeanne and Korinek (2010) and Farhi and Werning (2016), among several other papers.

that countries that adopt fully open capital accounts can only control monetary policy or their exchange rate but not both. Rey (2013) and Kalemli-Ozcan (2019b) have documented the increasing financial integration among countries, with Rey arguing that even countries with freely floating exchange rates cannot operate fully independent monetary policy if they are open to free capital flows—that is, the familiar trilemma turns into a dilemma. Capital account measures or limits on exchange rate flexibility are ways of regaining some degree of monetary autonomy or “rounding the corners of the trilemma” (Klein and Shambaugh, 2015). Recent work, including at the BIS, has looked at the apparent success of a “multiple targets, multiple instruments” approach in a number of countries to try to understand the merits and risks of such approaches relative to more textbook prescriptions (BIS, 2019; Acharya and Krishnamurthy, 2018).

At the same time, empirical evidence has reaffirmed that capital account measures can lower financial vulnerabilities by altering the composition of flows. Since 2012, there has been continued work trying to assess the impact of capital account measures relative to other tools, both at the country and cross-country level.¹² Overall, the literature has found that while such measures appear to have only a limited sustained impact on the volume of inflows, there is “stronger evidence” that such measures can “alter the composition of inflows away from debt toward equity, and from short-term to longer-term debt, under a variety of country circumstances” (Montiel, 2020). This work confirms that capital account measures can be helpful for mitigating risks related to particular types of capital inflows, although more granular and country-specific work is needed to ascertain what measures are most effective, for how long, and under what conditions. As regards limits on capital outflows, such measures appear to have been effective “but the number of such cases is limited, and there is little evidence of long-lasting effects” (Montiel, 2020).

A further issue relates to how the use of capital account measures or FXI may affect market conditions over the longer term. One concern is that the use of capital account measures or FXI as policy tools could be seen as market

unfriendly and raise country risk premia and deter market development. Here the jury is still out. While there is some evidence that borrowers in countries using capital account measures pay a higher risk premium for borrowing on international markets,¹³ interviews with market participants, including at rating agencies, suggest that what matters more is that policymakers clearly signal what set of instruments they plan to deploy to deal with volatility and that they avoid negative surprises. While long-standing use of capital account measures and FXI can have a dampening effect on incentives for market development, participants also recognize that the use of such measures need not be an unequivocal sign of market unfriendly behavior but rather can be helpful by limiting the buildup of vulnerabilities and containing market volatility, thus reducing the risks of very damaging crises.

The Fund’s ongoing efforts to develop an Integrated Policy Framework have already resulted in substantive research papers—and insights for policy advice—that are consistent with, and extend, the results from outside research. The IPF seeks to reassess the costs and benefits of some of the tools—monetary policy, macroprudential policy, exchange rate interventions and capital account measures—that countries use and to understand better how these tools interact with one another and with country circumstances (Adrian, 2018; Gopinath, 2019; Adrian and Gopinath, 2020). A recent working paper coauthored by the Fund’s Economic Counsellor lays out the theoretical underpinnings of the IPF in a model with real and nominal frictions where countries differ in several characteristics such as severity of currency mismatches and depth of foreign exchange markets (Basu and others, 2020). This model suggests that there is “no strict assignment” of policies to goals: policies interact with each other in complex, sometimes unexpected, ways, making it essential that CFMs be considered jointly with other policies and that the policy mix be tailored to country circumstances. Another working paper, co-authored by the Fund’s Financial Counsellor, uses a model similar to those widely used by central banks to help quantify how FXI and CFMs “may improve policy tradeoffs under certain conditions,” especially for economies with less well anchored inflation expectations,

¹² See Klein (2012), Ahmed and Zlate (2014), and Magud, Reinhart, and Rogoff (2018) among many others.

¹³ Andreasen, Schindler, and Valenzuela (2019) find, for a set of advanced and emerging economies, that restrictions on capital inflows raise corporate bond spreads.

substantial foreign currency mismatch, and that are more vulnerable to shocks likely to induce capital outflows and exchange rate pressures (Adrian and others, 2020).

While the IPF workstream is still mid-course and it is too early to make an assessment, some of the initial results would seem to have relevant lessons for the upcoming review of the IMF's framework for giving advice on dealing with capital flow volatility. The staff's presentation to the Board in May 2020, on the concrete policy advice drawing on the conceptual work, noted that CFMs and MPMs can be helpful as preemptive measures alongside monetary and fiscal policies before adverse shocks lead to binding constraints, in order to contain overborrowing and exposure to sudden stop risks—particularly in countries that have currency mismatches in domestic balance sheets and shallow foreign exchange markets. Moreover, in countries with shallow foreign exchange markets facing capital account volatility, the use of CFMs and foreign exchange intervention can sometimes help provide more macroeconomic policy space, for example to ease policies in the face of capital outflows associated with the COVID-19 crisis (IMF, 2020e).¹⁴

CONCERNS ABOUT THE DESIGN OF THE INSTITUTIONAL VIEW

Since its adoption in 2012, the IV has become the established framework for the Fund's country advice on capital flows. As discussed in Chapter 4, in many countries the underlying principles and overall design of the IV have provided a useful overall approach for giving advice on a range of complicated issues related to capital flows. This conclusion is supported by the experience of a range of countries in the case studies, particularly those that are already committed to capital account openness—such as, for example, Chile and Mexico and the European countries—and for countries still at an earlier stage of capital account opening. Officials in these countries seem broadly satisfied with the IV's design, although there may have been some issues with implementation as discussed in the next chapter.

However, in a range of other countries that have been interested in using capital account measures more actively for both financial stability and macroeconomic management purposes, there are concerns that the design of the IV does not provide sufficient flexibility in combining different tools to respond to country circumstances. These concerns have some support in recent research as well as country experience. Particular issues include:

- (i) The limited circumstances in which the IV supports use of capital flow measures.
- (ii) The presumption of effectiveness of traditional instruments may not always hold true.
- (iii) Questions about the clear distinction in the IV regarding policy advice on capital flow measures versus advice on macroprudential measures.
- (iv) The role of social and political considerations, such as housing affordability.

Treatment of CFMs under the IV framework

In many respects, CFMs are treated in the IV as measures to be used only in limited circumstances. Some of these restrictions may not be fully justified.

- ▶ The IV suggests a long set of preconditions to be met before CFMs are appropriate.
 - For inflow CFMs, these preconditions include an overheated economy, an overvalued exchange rate, an adequate level of reserves, and an inflow surge. As noted above, recent theoretical and empirical work questions whether capital account measures should necessarily be used only in such limited circumstances.
 - For dealing with outflow episodes, the IV guides that CFMs may be useful only in a crisis or when a crisis is imminent, which sets a high bar. In practice, some countries that still have quite extensive controls on capital flows have

¹⁴ Gelos and others (2019), Mano and Sgherri (2020), and Pasricha (2020) also explore the effect, interaction, and trade-offs of such integrated policies and how country characteristics have influenced countries' choices of targets and instruments, while a recent *WEO* chapter (IMF, 2020d) looks at how the use of macroprudential policies by EMDEs can help dampen the macroeconomic effects of global financial shocks.

adjusted both inflow and outflow CFMs when faced by capital account pressures that while serious do not clearly meet the “imminent crisis” threshold.

- ▶ The guidance in the IV that new capital flow management measures should not be used preemptively and should be imposed at most on a temporary basis during an inflow surge or during a crisis or near-crisis situation seems to conflict with the recent research suggesting that capital account measures may be a useful part of the financial stability framework and that limits on capital account openness can usefully increase the scope for orthodox stabilization policies, such as monetary policy.
- ▶ There is also mixed empirical support for the notion that restrictions are only effective temporarily, especially if the goal is to influence the composition of flows or contain domestic credit growth or guard against balance sheet mismatches, rather than to affect the total volume of flows.

Thus, recent research as well as country experience supports the notion that preemptive and lasting measures may be a useful part of the policy toolkit as a country seeks to balance multiple objectives, although their value and use would depend on country circumstances. The IV’s guidance that use of capital flow measures should be strictly temporary and only in the context of a surge or a crisis/near-crisis, and not used preemptively, does not have solid empirical or conceptual foundations and serves to curtail the menu of policy options available to policymakers.

Effectiveness of traditional instruments

The efficacy of traditional instruments in managing capital flow volatility continues to be a subject of debate and active research. The IV rests on the presumption that textbook macro prescriptions, particularly exchange rate adjustment, are an effective stabilizing response to capital flow surges and reversals. Recent research outlined above tends to

validate the concerns of some country policymakers that the exchange rate may have limits as a stabilization tool because it may amplify rather than dampen the impact of external shocks, particularly through balance sheet effects in countries with substantial foreign currency mismatches, whether in financial institutions, corporates, or households. Such concerns seem particularly relevant in countries with shallower financial markets, weaker financial oversight, and heavier dollarization. Other recent research on the impact of dominant currency pricing on trade responses to exchange rate moves also has raised questions about the stabilizing role of the exchange rate (Adler, Cubeddu, and Gopinath, 2019). That said, policymakers in countries with deeper markets and more robust financial institutions are more sanguine about using the exchange rate as shock absorber. (For an illustration of the range of views, see discussion of Latin American experience in Batini, Borensztein, and Ocampo, 2020.)

Distinction between capital account measures and macroprudential measures

Recent research suggests that the IV framework draws too sharp a distinction between CFMs and MPMs in its policy guidance. The IV supports the use of capital flow measures only for a limited period while other “non-discriminatory measures” are developed, and not preemptively, even where the measure is judged to have financial stability purposes (and is therefore classified as a CFM/MPM); in contrast, macroprudential measures are seen as a legitimate permanent part of the policy toolkit. Based on research reported in Korinek (2020), since foreign currency mismatches can be a genuine source of vulnerability, and a currency based measure can be the most direct, non-distortionary means to address the vulnerability, there would seem to be a good case for accepting that preemptive and lasting application of certain currency-based tools can be useful for financial stability purposes even if these tools are likely to impact capital flows.¹⁵ There are also related tensions between the IV’s treatment of CFMs/MPMs and rules under the Basel III framework, as discussed in Chapter 6.

¹⁵ In principle, a CBM may be judged to be a pure MPM not an MPM/CFM if the Fund assesses that it is not designed to limit capital flows (see for example the Costa Rica case study in Batini and Durand, 2020). However, in another country the same measure may be judged as an MPM/CFM, implying that the country should be advised to look for “alternative” measures that are not designed to limit capital flows.”

How this distinction between CFMs, CFMs/MPMs, and MPMs plays out in practice is discussed in Chapter 4 below.

Role of social and political considerations

The IV is largely couched in terms of efficiency, stability, and growth objectives and gives limited attention to broader social and political goals. However, recent research at the IMF and elsewhere has shown that capital account opening can have adverse distributional consequences (Furceri, Loungani, and Ostry, 2019). Another concern relates to house price developments, as recent IMF research has shown the increasing importance of international capital flows in driving house-price synchronization, especially in major cities around the world (IMF, 2018). As a result, some countries have used CFMs for social purposes, such as residency-based measures in the housing sector to promote affordable housing for residents. However, in applying the IV, staff has advised against such measures other than on a temporary basis in the context of an inflow surge, even though the document does provide a general recognition that would allow for certain CFMs to be maintained over a longer term, provided that “they are imposed for reasons other than balance of payments purposes” and that “no less discriminatory measure is available that is effective” (IMF, 2012, para 33).¹⁶

ASSESSMENT

Overall, the adoption of the IV represented a major advance in the IMF’s policy framework guiding advice on the management of capital flows. In the two decades before the IV, the IMF’s policy stance was perceived as being generally

discouraging of capital account measures. In practice, as noted earlier, IMF country teams took into account circumstances in which such measures were used and were often sympathetic to them, but there was no consistent framework. The IV was a major step towards filling this gap and was broadly in line with research at that time, much of it produced within the Fund. Outside the Fund, the IV was seen as a welcome demonstration of the institution’s flexibility and willingness to embrace new developments (IEO, 2015; Grabel, 2017). In parallel, the IMF developed a well-regarded macroprudential framework that has provided useful assessments of the effectiveness of macroprudential policies in dealing with volatility, as well as working to sharpen other external assessment tools.

Nevertheless, recent research and country experience raise a number of concerns with the IV’s design. Some of the carefully circumscribed set of conditions that the IV places around the use of capital account measures, particularly related to limits on preemptive use, are called into question by recent theoretical work and lack firm empirical support. Moreover, the IV has been out of step with practices in a number of countries that have found capital account measures to be useful tools to deal with volatile flows in a broader range of circumstances than envisaged in the IV. These concerns have been reflected in some serious differences with authorities when the IMF has provided advice to countries in line with the IV framework, as discussed in the next chapter.

¹⁶ There is an explicit carve-out for measures taken for national security purposes in IMF (2012), footnote 49.