



# IMF POLICY PAPER

## CAPITAL FLOWS—REVIEW OF EXPERIENCE WITH THE INSTITUTIONAL VIEW

December 2016

IMF staff regularly produces papers proposing new IMF policies, exploring options for reform, or reviewing existing IMF policies and operations. The following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its December 5, 2016 consideration of the staff report.
- The **Staff Report**, prepared by IMF staff and completed on November 4, 2016 for the Executive Board's consideration on December 5, 2016.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

Electronic copies of IMF Policy Papers  
are available to the public from  
<http://www.imf.org/external/pp/ppindex.aspx>

**International Monetary Fund**  
**Washington, D.C.**



INTERNATIONAL MONETARY FUND



Press Release No. 16/573  
FOR IMMEDIATE RELEASE  
December 20, 2016

International Monetary Fund  
Washington, D.C. 20431 USA

### **IMF Executive Board Discusses Review of Experience with the Institutional View on the Liberalization and Management of Capital Flows**

On December 5, 2016, the Executive Board of the International Monetary Fund (IMF) discussed a staff paper on “*Capital Flows—Review of Experience with the Institutional View.*”

Capital flows are an important aspect of the international monetary system. They provide significant benefits, both direct and indirect. At the same time, they also carry risks, and a key challenge for countries is how to harness the benefits while managing the risks. Building on a series of Fund policy papers and Board discussions, as well as analytical work, the IMF’s institutional view on the liberalization and management of capital flows was adopted in 2012 in order to facilitate clear and consistent policy advice to the membership. The institutional view was also envisaged to help foster a more consistent multilateral approach to the design of policies for dealing with capital flows across the various international agreements. The capital flow environment has changed significantly in the period since then, reflecting developments in the global economy. A gradual trend has continued toward greater capital account openness. The challenge for policymakers has shifted from handling capital inflow surges to dealing with capital flow reversals, while continuing to manage volatility. Both push and pull factors remain important for capital flows, suggesting that both source and recipient country policies play a role.

Against this backdrop, the paper reviews countries’ experiences with handling capital flows in the period since the adoption of the institutional view. Specifically, it examines how countries dealt with macroeconomic and financial stability challenges related to capital flows and progressed in liberalizing capital flows, and interprets these policy responses through the lens of the institutional view. It also discusses recent developments in the multilateral system that relate to capital flows and reviews the application of the institutional view in surveillance and other Fund operations with the membership. In light of the experience, the paper highlights some issues that may merit further clarification or elaboration.

## **Executive Board Assessment**

Executive Directors welcomed the review of experience with the institutional view on the liberalization and management of capital flows since its adoption in 2012. They considered that the institutional view remains relevant in the current environment, and that there is no need for substantive adjustment at this point. However, as recognized at the time of its adoption, this institutional view would need to remain flexible and evolve over time to incorporate new experience and insights. Directors broadly agreed with the main findings and the view that a few emerging issues identified in the review could benefit from further clarification.

As highlighted in the institutional view, Directors underscored that capital flows provide significant benefits, but at the same time they also acknowledged that such flows carry risks if they are large and volatile. Accordingly, Directors emphasized the importance of implementing sound macroeconomic and financial sector policies, including exchange rate flexibility, which would enable countries to reap the full benefits of capital flows while mitigating risks. Directors recognized that full liberalization of capital flows may not be an appropriate goal for all countries at all times, although many of them remained of the view that capital account liberalization should be an important long-term objective and emphasized that the Fund should clearly communicate its support for this objective. Directors also reiterated that capital flow management measures (CFMs) should not be used to substitute for warranted macroeconomic adjustment. They recognized that both push and pull factors remain important for capital flows, highlighting that source and recipient country policies have implications for the size and volatility of capital flows.

Directors noted that the capital flow environment has changed significantly since 2012. The policy challenge for recipient countries, which reflect substantial heterogeneity, has generally shifted from handling capital inflow surges to dealing with capital flow reversals, while continuing to manage volatility. Directors observed that policy responses have generally been along the lines envisioned in the institutional view. Countries have relied primarily on macroeconomic policies to manage capital flow reversals. CFMs on outflows were generally used in crisis or imminent crisis circumstances as part of a broad policy package, except in a few cases where countries faced particular challenges. Countries that had experienced large inflows also responded mainly with macroeconomic policies. Some countries used macroprudential measures to manage financial risks arising from capital flows. A few Directors would have preferred deeper analysis of country experiences with CFMs on inflows and their consistency with the institutional view, including in the context of Fund surveillance.

Directors took positive note of the continued gradual trend toward greater capital account liberalization. They welcomed the finding that, in general, countries' pace and sequencing of liberalization have taken into account macroeconomic and financial sector policies and

conditions, complemented by supporting reforms, broadly in line with the integrated approach in the institutional view.

Directors recognized the role that the institutional view has played in Fund surveillance, providing an analytical framework and basis for consistent policy advice for both source and recipient countries, as well as informing capacity building, particularly in low-income countries and frontier markets. In so doing, the institutional view does not alter members' rights and obligations under the Fund's Articles of Agreement. Directors appreciated the discussion in Fund surveillance, both bilateral and multilateral, of spillovers and alternative policies that achieve similar domestic objectives while minimizing negative spillovers. Many Directors encouraged staff to pay more attention in its surveillance to the role of source countries in internalizing policy spillovers. Directors welcomed the progress in implementing the global financial regulatory and supervisory agenda and in international cooperation to address financial risks and spillovers that can affect capital flows. They also supported ongoing efforts to address gaps in capital flow data, in collaboration with other international organizations and member countries, mindful of the resource implications of these efforts.

Directors supported follow-up work on the interaction between macroprudential and capital flow policies, especially the role of macroprudential policy frameworks in addressing systemic financial risks arising from capital flows, taking into account countries' financial and institutional development. They called for continued close cooperation with the Bank for International Settlements (BIS), the Financial Stability Board (FSB), and the Organization for Economic Co-operation and Development (OECD), respecting each other's mandate. Directors called on staff to continue to assess the effectiveness of CFMs, including the extent to which CFMs are circumvented, although they acknowledged that differentiating the effects of CFMs from those of other policies could be challenging.

Directors also saw merit in clarifying further the conditions that could lead to the re-imposition of CFMs during liberalization and when countries, while not in crisis or imminent crisis circumstances, face other specific challenges. With regard to other issues that have arisen in the debate, a number of Directors were skeptical about the structural use of CFMs to influence the composition of capital flows or to enhance policy autonomy; however, some others felt that this topic, while going beyond the institutional view, deserves further examination, particularly in the context of emerging and frontier markets.

Directors generally saw value in the Fund promoting a more consistent global approach to handling capital flows, including among bilateral and multilateral agreements. They stressed in particular the need to take into account country-specific macroeconomic and financial stability considerations in determining the appropriate policy response, as emphasized in the institutional view. Directors encouraged further analysis and communication of country experiences, and continued engagement with member countries and other relevant regional and international organizations on capital flow issues. To this end, they supported, in

particular, the Fund's continued engagement with the OECD, including in the ongoing review of the OECD Code of Liberalization of Capital Movements.



November 4, 2016

## CAPITAL FLOWS—REVIEW OF EXPERIENCE WITH THE INSTITUTIONAL VIEW

### EXECUTIVE SUMMARY

**Purpose.** Capital flows are an important aspect of the international monetary system. They provide significant benefits, both direct and indirect. At the same time, they also carry risks, and a key challenge for countries is how to harness the benefits while managing the risks. The institutional view on the liberalization and management of capital flows provides the Fund with a basis for consistent advice on policies related to capital flows. This paper reviews countries' experiences with handling capital flows in the period since the adoption of the IMF's institutional view in 2012. Based on the experience, it identifies a few areas in which the view would benefit from further clarification or elaboration.

**Context.** The capital flow environment has changed significantly since 2012, reflecting developments in the global economy. A gradual trend has continued toward greater capital account openness. The policy challenge for recipient countries has shifted from handling capital inflow surges to dealing with capital flow reversals, while continuing to manage volatility. Both push and pull factors remain important for capital flows, highlighting the importance of policies in both source and recipient countries.

#### Policies

- **Managing capital flows.** Policy responses have been generally along the lines envisioned in the institutional view. Countries relied on a combination of macroeconomic policies to deal with capital flow reversals, including exchange rate flexibility, foreign exchange intervention, and monetary and fiscal policy adjustment. Capital flow management measures (CFMs) on outflows were generally used in crisis or imminent crisis circumstances as part of a broad policy package, although in a few cases they were used outside of such circumstances when countries faced particular challenges. A few countries experienced large inflows, and responded mainly with macroeconomic policies broadly in line with the institutional view. New CFMs on inflows were rare, although CFMs introduced in the period of inflow surges before 2012 have only partially been rolled back. Several countries also used macroprudential measures (MPMs) to manage financial cycle risks, which in some cases were related to capital flows.

- **Capital flow liberalization.** A modest trend toward greater capital account liberalization and openness has continued, reflecting countries' aim to reap the benefits of capital flows. Some countries with long-standing CFMs that had achieved certain levels of financial and institutional development have moved to liberalize further. In general, their pace and sequencing of liberalization take into account macroeconomic and financial sector policies and conditions, complemented by supporting reforms, broadly in line with the integrated approach in the institutional view. Countries have re-imposed CFMs in some cases in response to a variety of circumstances.

**Multilateral aspects.** The institutional view can help foster a more consistent multilateral approach to the design of policies for dealing with capital flows across the various international agreements. Developments and ongoing debates in the international community echo some of the considerations laid out in the institutional view. Progress has been made in international cooperation and coordination of financial sector policies, both among national supervisors and in the macroprudential area, to address risks and spillovers that can affect capital flows.

**Role of the Fund.** The institutional view guides Fund advice to members and, where relevant, Fund assessments of policies related to capital flows. It has no mandatory obligations for the Fund's financing role and it does not alter members' rights and obligations under the Fund's Articles of Agreement or under other international agreements. In the period since its adoption, the institutional view has played an important role in Fund surveillance and related policy advice across the membership, as well as in capacity building. Policy advice has used the institutional view as a basis for consistency. Fund surveillance in source countries has discussed spillovers and recommended policies to achieve domestic objectives that minimize significant global spillovers. The Fund continues to work with member countries and other international organizations to further improve capital flow data.

**Emerging issues.** An overarching challenge for policymakers remains how best to draw benefits from capital flows while managing the risks, at both the global and the country level. The recent experience and ongoing discussion highlight a few issues as meriting further clarification or elaboration. These issues include: the interaction between macroprudential and capital flow policies, especially the role of macroprudential policy frameworks in addressing systemic financial risks arising from capital flows; clarifying further the relevant conditions for the re-imposition of CFMs during liberalization and when countries face particular challenges; and how the institutional view can serve as a framework for greater multilateral consistency in the design of policies for dealing with capital flows.

Approved By  
**Sean Hagan,**  
**Maurice Obstfeld,**  
**Siddharth Tiwari, and**  
**Ratna Sahay**

Prepared by an interdepartmental staff team from the Legal (LEG), Monetary and Capital Markets (MCM), Research (RES), and Strategy, Policy, and Review (SPR) departments, with inputs from Area Departments, Fiscal Affairs Department, Institute for Capacity Development, and Statistics Department. The paper was coordinated by Varapat Chensavasdijai and Pablo Morra (SPR), under the guidance of Vivek Arora and Martin Kaufman (SPR), Dong He (MCM), Jonathan D. Ostry (RES), and Nadia Rendak (LEG). The team comprised Kyung Kwak (LEG); Chikako Baba, Salim Darbar, Michaela Erbenova, Caio Ferreira, Aditya Gaiha, Karl Habermeier, Annamaria Kokenyne, Fabiana Melo, Erlend Nier, and Yasushi Sugayama (all MCM); Mahvash Saeed Qureshi (RES); and Diego Cerdeiro, Alexandre Chailloux, Sean Craig, Rupa Duttgupta, Ghada Fayad, Mary Goodman, Gavin Gray, Swarnali Ahmed Hannan, Christiane Kneer, Vitaliy Kramarenko, Yinqiu Lu, Brad McDonald, Murna Morgan, Rachel Nam, Neree Noumon, Maria Sole Pagliari, Jiemin Ren, Mohammed Saleh, Sarah Sanya, Cindy Xu, and Sophia Zhang (all SPR). Rachelle Blasco, Sarah Scherr, and Pille Snyderstrup (all SPR) also provided assistance.

## CONTENTS

Glossary	5
<b>CONTEXT AND PURPOSE</b>	<b>6</b>
<b>CAPITAL FLOW DEVELOPMENTS</b>	<b>8</b>
<b>POLICY EXPERIENCE</b>	<b>13</b>
A. Managing Capital Flows	13
B. Role of Source Countries	26
C. Capital Flow Liberalization	29
<b>MULTILATERAL ASPECTS</b>	<b>33</b>
<b>ROLE OF THE FUND</b>	<b>35</b>
<b>EMERGING ISSUES</b>	<b>40</b>
<b>ISSUES FOR DISCUSSION</b>	<b>44</b>



**BOXES**

1. Institutional View on Liberalization and Management of Capital Flows: Key Elements	15
2. Recent Experience with Capital Flows in Frontier Markets	24
3. Progress in the Global Financial Regulatory and Supervisory Agenda	28
4. Review of OECD Code of Liberalization of Capital Movements	34
5. Engagement with Country Authorities	39
6. Effectiveness of CFMs	43

**FIGURES**

1. Global Capital Flow Developments	10
2. Net Flows to Emerging Market Funds	11
3. Capital Flow Volatility	11
4. GDP Growth, Public Debt, Sovereign Spreads, and IIP	13
5. Net Capital Flows	14
6. Countries in Crisis Circumstances	20
7. Change in Reserve Assets and 10-Year Government Bond Yields	29
8. De Jure and De Facto Openness to Capital Flows	30
9. Liberalization Measures	30

**TABLES**

1. Circumstances and Policy Responses during Capital Flow Reversal Episodes	19
2. Liberalization Measures by Type of Transactions, 2013–16	31

References	53
------------	----

**ANNEXES**

I. Capital Flow Survey	45
II. Types of CFMs Used (2009–15)	52

## Glossary

AEs	Advanced Economies
AREAER	Annual Report on Exchange Arrangements and Exchange Restrictions
BIS	Bank for International Settlements
BITs	Bilateral Investment Treaties
BOP	Balance of Payments
BPM6	Balance of Payments and International Investment Position Manual, Sixth Edition
CFMs	Capital Flow Management Measures
CPIS	Coordinated Portfolio Investment Survey
DGI-2	Data Gaps Initiative, Second Phase
DTI	Debt-to-Income
ECB	European Central Bank
EMDEs	Emerging Market and Developing Economies
EU	European Union
FDI	Foreign Direct Investment
FSB	Financial Stability Board
FTAs	Free Trade Agreements
G20	Group of Twenty
G-SIBs	Global Systematically Important Banks
G-SIIs	Globally Systemically Important Insurers
IASB	International Accounting Standards Board
IEO	Independent Evaluation Office
IFA	International Financial Architecture
IIP	International Investment Position
IMFC	International Monetary and Financial Committee
LCR	Liquidity Coverage Ratio
LICs	Low-Income Countries
MPMs	Macroprudential Measures
OECD	Organization for Economic Co-operation and Development
OTC	Over-the-Counter
SSM	Euro Area's Single Supervisory Mechanism
UNCTAD	United Nations Conference on Trade and Development
WEO	World Economic Outlook

## CONTEXT AND PURPOSE

1. **Capital flows are a key aspect of the international monetary system providing significant benefits for countries.** The benefits of capital flows include direct benefits such as the new technology and management practices that often accompany foreign direct investment (FDI), increased room for facilitating investment and smoothing consumption, and so-called “collateral benefits” such as financial sector development, macroeconomic policy discipline, trade, and economic efficiency. But a question for many countries that seek to benefit from more open capital flows is how to do so safely. Capital flows can also carry risks for macroeconomic and financial stability, and pose challenges for policy. Such challenges exist both when countries are undertaking capital flow liberalization and when countries already have relatively open capital accounts.
2. **The Fund’s institutional view on the liberalization and management of capital flows provides a framework for clear and consistent policy advice.** As the Executive Board, the International Monetary and Financial Committee (IMFC), the Independent Evaluation Office (IEO) and others have noted, the Fund needs to be in a position to provide clear and consistent advice with respect to capital flows and policies related to them to all of our membership.<sup>1</sup> Building on a series of Fund policy papers and Board discussions, as well as analytical work, the institutional view on the liberalization and management of capital flows was adopted in 2012, with related guidance issued in 2013 and 2015, in order to facilitate clear and consistent policy advice on these issues.<sup>2</sup>
3. **The global environment as it relates to capital flows has changed in important respects in the period since the institutional view was established.** Monetary policy remains generally accommodative across the world but it has become asynchronous, with the United States having started on the path to normalization while other major advanced economies (AEs) have undertaken further easing. Growth prospects between AEs and emerging market and developing economies (EMDEs) have narrowed, and the configuration of risks has rotated from predominantly external risks to also include important domestic risks. As a result, the environment confronting policymakers has changed from one of surging capital flows to EMDEs as well as small AEs, to one of often abrupt capital flow reversals.
4. **The discussion on capital flow issues has continued apace in the international community, including the G20, and academic debate.** The G20 has underlined that the G20 2011 “Coherent Conclusions for the Management of Capital Flows” and the IMF’s institutional view remain relevant in the current global environment. In 2015–16, the G20 International Financial Architecture (IFA) Working Group undertook work to improve the analysis and monitoring of capital flows and

<sup>1</sup> [IMF press release](#) (2012) and IEO (2005 and 2015).

<sup>2</sup> IMF (2012, 2013a, and 2015a). After the publication of the institutional view in November 2012, a related guidance note was published in April 2013 providing operational guidance to staff. A note elaborating the guidance on managing capital outflows in non-crisis circumstances was published in December 2015.

related risks.<sup>3</sup> The IMF provided inputs to the G20 discussions, including on capital flow developments and data availability and quality, country experiences in handling capital flows, and emerging issues identified from the experience. The Organization for Economic Co-operation and Development (OECD) has decided to review its framework for capital flow liberalization, and a number of free trade agreements and bilateral investment treaties have also included provisions that have implications for policies related to capital flows. In its 2015 evaluation, the IEO noted the Fund's progress during 2006–14 toward clarifying and enhancing the approach to capital account liberalization, including through the development of the institutional view.<sup>4</sup> At the same time, it noted scope to improve the consistency and traction of the IMF's advice, as well as international policy coordination among source and recipient countries. Meanwhile, research has continued on policies to deal with capital flows, particularly in the context of the well-known “trilemma”, where recent papers have differed on whether capital controls (Rey, 2016) or flexible exchange rates (Obstfeld, 2015) provide better insulation from the global financial cycle.<sup>5</sup>

**5. The present paper reviews countries' experiences with handling capital flows in the period since the adoption of the IMF's institutional view.** It discusses how the institutional view has worked in practice in the various areas of the Fund's interaction with our membership. The paper has benefited from information and views provided by country authorities and officials in various settings, including during surveillance and policy discussions, and through a survey of the membership. The institutional view has been used in surveillance and other Fund operations, such as use of Fund resources and technical assistance, and has helped facilitate consistency in review and policy advice. At the same time, countries' experiences and circumstances have shown up certain issues that would benefit from further clarification or elaboration, as well as highlighted the importance of paying attention to ongoing concerns such as spillovers and the effectiveness of policies. There is also a need for the Fund to continue to improve the traction of its policy advice based on the institutional view.

**6. The paper is organized as follows.** First, it describes how the global environment with respect to capital flows has changed during the period since 2012 relative to the prior period. Second, it reviews how countries dealt with macroeconomic and financial stability challenges related to capital flows and progressed in liberalizing capital flows during the recent period, and interprets these policy responses through the lens of the institutional view. Third, it discusses recent developments in the multilateral system that relate to capital flows and reviews the application of the institutional view in the various aspects of Fund operations. The paper then draws on the

---

<sup>3</sup> The work of the G20 IFA Working Group responded to a request made in November 2015 by the Heads of State and Governments to work on measures that would promote a smooth functioning and orderly evolution of the international monetary and financial system.

<sup>4</sup> IEO (2015).

<sup>5</sup> The “trilemma” is that it is feasible for a country to choose at most two, and not all three, from among an open capital account, an independent monetary policy, and a fixed exchange rate. If the capital account is open, for example, monetary policy independence is only possible if the exchange rate is flexible. Other recent studies have focused on the implications of spillovers to recipient countries from monetary policy in AEs and on the lack of effectiveness of intermediate policy responses (Blanchard, 2016; Klein and Shambaugh, 2015).

foregoing sections to highlight some issues on which, in light of recent experience, research, and feedback from authorities and opinion makers, further clarification and elaboration may be useful. The final section poses some issues for discussion.

## CAPITAL FLOW DEVELOPMENTS

*The capital flow environment has changed significantly since 2012, with the policy challenge for recipient countries shifting from dealing with capital inflow surges to managing capital flow reversals, while continuing to manage volatility. The downtrend in net capital flows to recipient countries has been broad-based, across country groups and components, driven primarily by a reduction in gross inflows. Both push and pull factors remain important for capital flows, highlighting that source and recipient country policies have implications for the size and volatility of capital flows.*

**7. The capital flow environment has changed during the period since 2012.** While in the preceding period, recipient countries had to deal with surges in net capital inflows, in the subsequent period they have faced a decline in net capital inflows accompanied by bouts of volatility. As noted in IMF (2015a), a sudden reduction of capital inflows, including so-called “sudden stops” that end an inflow surge, could have similar effects as capital outflows on macroeconomic and financial stability and pose similar challenges for policy.

**8. The volume of global capital flows has remained subdued compared to that witnessed before the global financial crisis** (Figure 1).<sup>6</sup> While global gross capital flows have recovered somewhat since 2012, in both dollar terms and as a share of world GDP, they remain well below the highs of 2007. The recovery was driven by flows to AEs, while flows to EMDEs have fallen. As a result, global flows as a share of world GDP are once again dominated by flows to AEs, like they have been historically except for the brief period after the global financial crisis when AE flows collapsed. Global capital flows remain composed largely of FDI, followed by portfolio flows.

**9. Recipient countries saw a reduction in net capital inflows, reflecting primarily a fall in gross inflows.** The decline was broad-based across all types of flows, with “other inflows”, comprising bank lending and derivative transactions, showing the sharpest drop, followed by portfolio debt flows and FDI. These trends are apparent even excluding countries that experienced large outflows in 2015 and the first half of 2016.<sup>7</sup> Since the summer of 2016, high frequency data

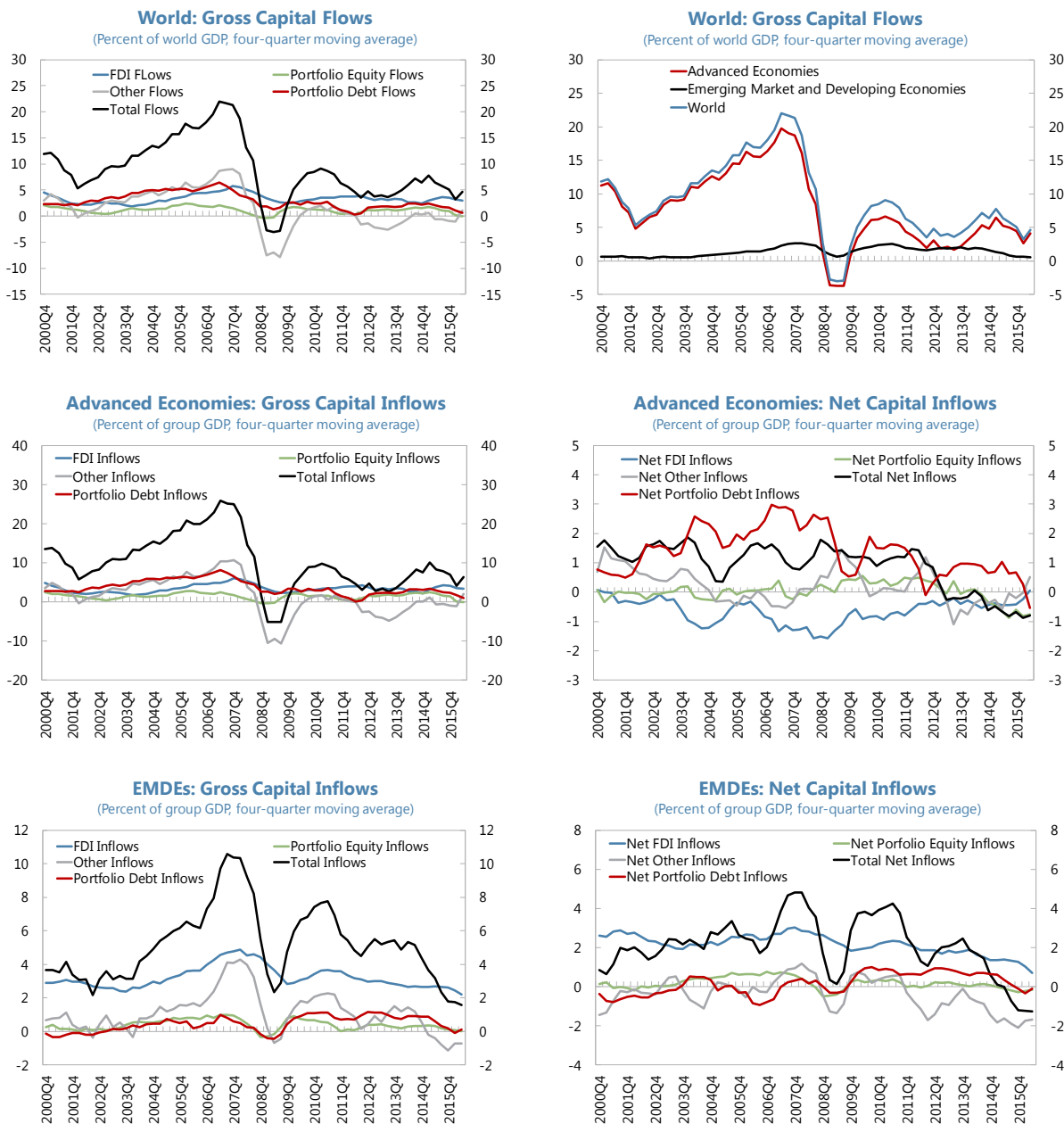
<sup>6</sup> The analysis of capital flows draws on the IMF Financial Flows Analytics (FFA) database, which provides comparable cross-country quarterly time series on international capital flows with the breakdown of balance of payments (BOP) statistics, and IIP and international reserves data. Consistent with FFA and World Economic Outlook (2016), gross capital inflows are defined as net acquisition of domestic assets by nonresidents. Gross capital outflows are defined as net acquisition of foreign assets by residents, excluding reserve assets. Net capital inflows are defined as gross inflows minus gross outflows. The analysis covers both gross and net flows, as gross flows are important from the financial stability perspective, while net flows have implications for the broader economy. Data are analyzed in rolling periods of four quarters, which captures the sometimes significant changes in capital flow trends on a quarterly basis.

<sup>7</sup> Excluding commodity exporters does not change the overall picture, with net capital inflows becoming slightly more negative in 2015 and the first half of 2016. Excluding China changes the picture marginally in 2015 and the first half of 2016, when China experienced large outflows (in particular FDI and other inflows), but net capital inflows still showed a downward trend.

suggest that net capital flows to recipient countries recovered, mainly reflecting portfolio inflows (Figure 2). However, it is too early to determine if this represents a change in the trend of the last four years or simply short-term fluctuations related to shifts in financial conditions and temporary factors.

**10. Net flows to recipient countries have remained volatile.** They have fluctuated by several percentage points of GDP in the span of a few quarters. Other flows and portfolio debt flows have been the most volatile, but all capital flow components have exhibited bouts of volatility where even small swings can result in net outflows. Capital flow volatility has increased significantly during some episodes, often related to changes in global conditions (Figure 3). For example, EMDEs experienced elevated volatility for a few quarters following the “taper tantrum” in 2013. The bouts of increased capital flow volatility remain a policy challenge, particularly in the current environment of low capital inflows.

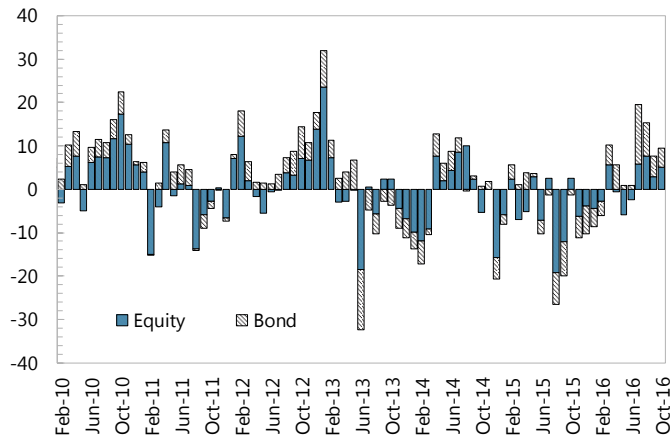
**Figure 1. Global Capital Flow Developments**



Note: The changes in net flows by AEs and EMDEs should balance out in principle since changes in external assets and liabilities by all countries in the world should sum to zero. In practice, they do not balance out, owing to discrepancies in the reporting of financial accounts across countries, as is the case with trade and current account balances. Other inflows is a residual category, comprising mainly loans (including bank lending and trade credit), deposits, and financial derivatives.

Sources: IMF Financial Flows Analytics and BOP Statistics, and IMF staff calculations.

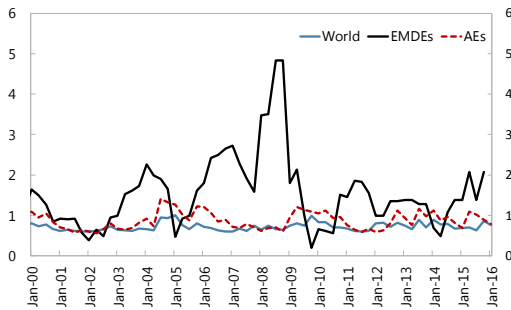
**Figure 2. Net Flows to Emerging Market Funds**  
(USD Billion)



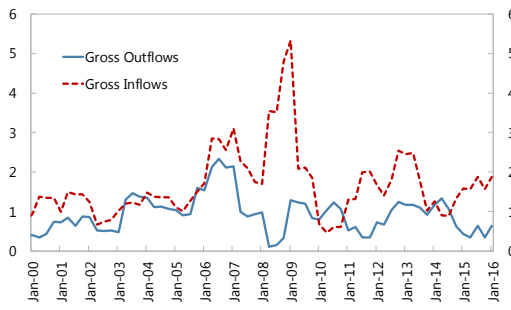
Sources: Bloomberg and Emerging Portfolio Fund Research (EPFR) Global.

**Figure 3. Capital Flow Volatility**

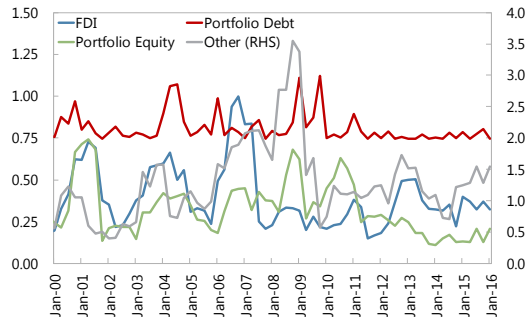
**Volatility of Net Flows**  
(Percent of GDP)



**EMDEs: Volatility of Gross Inflows and Outflows**  
(Percent of GDP)



**EMDEs: Volatility of Net Flows**  
(Percent of GDP)



Note: Charts show estimates of capital flow volatility based on standard deviations of residuals from ARIMA model.

Sources: IMF BOP Statistics and IMF staff calculations.



**11. Both push and pull factors remain important for capital flows, suggesting that source and recipient country policies play a role.**

Empirically, push factors seem to influence whether inflow surges occur and the riskiness of flows, while pull factors determine the direction and magnitude of such surges (IMF, 2012). More recent analysis has found that growth differentials, global risk aversion, and interest rate differentials remain key drivers of capital flows, in particular portfolio flows (IMF World Economic Outlook, April 2016).<sup>8</sup> Other flows are mainly determined by growth and interest rate differentials, while FDI is driven by more structural factors such as trade openness and financial depth of the country. Both the narrowing of growth differentials between AEs and EMDEs and increased global risk aversion have contributed to the decline in net capital flows to EMDEs since 2012, mitigated slightly by higher interest rate differentials (Figure 4).

**12. The configuration of risks for many countries has changed, increasingly including domestic factors.**

Global risks that could impact capital flows still remain, including tighter and more volatile global financial conditions (including because of de-risking), and political fragmentation. Domestic risks are associated with weaker fundamentals, including the need for sizable fiscal and external adjustments of many commodity exporters to a protracted decline in the terms of trade, financing risks associated with increased public debt, higher balance sheet exposure by corporates to foreign currency risk, and the worsening of net international investment positions (IIPs) (Figure 4). Financing costs for EMDEs have decreased in 2016, but the durability of the reduction remains uncertain.

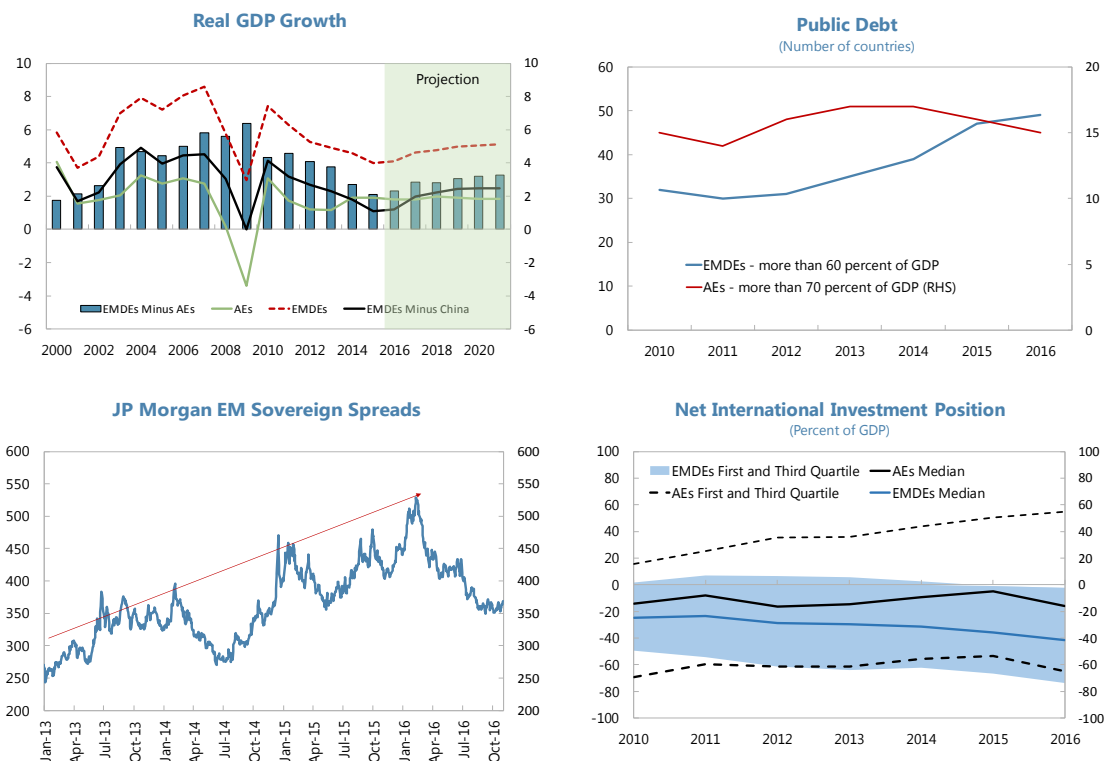
**13. The reduction in net capital inflows has also been reflected in the rotation observed in global imbalances.**

Global current account imbalances narrowed substantially after the global financial crisis, but progress has tailed off in the last year or two and imbalances widened in 2015.<sup>9</sup> Excess current account surpluses persisted among the systemic economies, while the configuration of excess current account deficits rotated to the United States, including from several vulnerable emerging markets. The reduction in current account deficits among several emerging markets has also been reflected in the decline observed in net capital inflows, driven by both domestic and external conditions.

---

<sup>8</sup> Ahmed and Zlate (2014), Nier et al. (2014), and Koepke (2015) also derive similar conclusions. Fratzscher (2012) finds that push factors were overall the main drivers of capital flows during the global financial crisis, while pull factors have been dominant in the post-crisis period. Eichengreen and Gupta (2016) conclude that the frequency and duration of sudden stops in capital flows to emerging markets have remained largely unchanged since 1991, but that global factors have become more important in their incidence.

<sup>9</sup> IMF External Sector Report (2016).

**Figure 4. GDP Growth, Public Debt, Sovereign Spreads, and IIP**

Note: Public debt thresholds (60 and 70 percent of GDP for EMDEs and AEs, respectively) represent the indicative benchmarks in IMF (2013b).

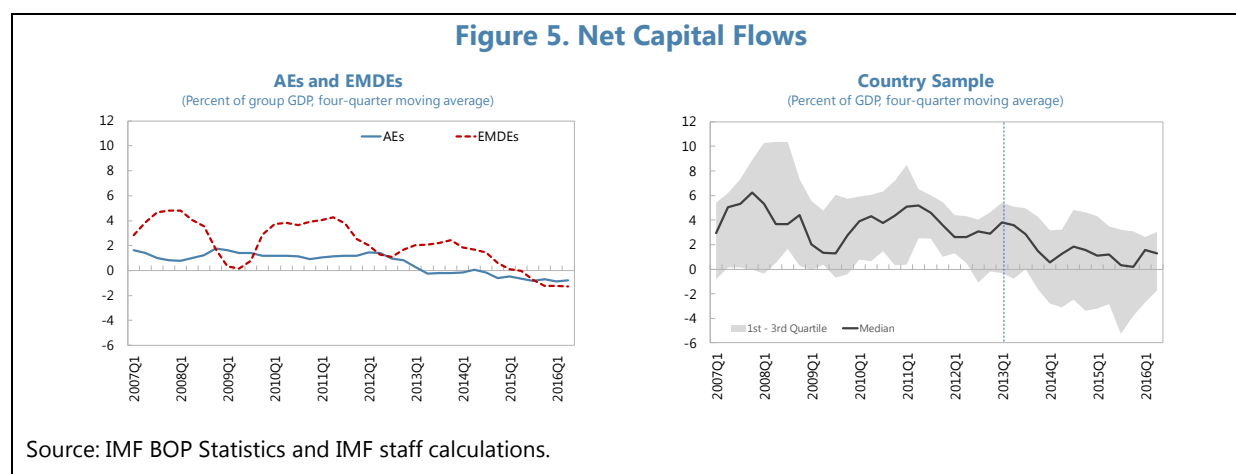
Sources: WEO, Bloomberg, and IMF staff calculations.

## POLICY EXPERIENCE

### A. Managing Capital Flows

*In the period since 2012, countries managed capital flow reversals using a combination of macroeconomic policies, including exchange rate flexibility, foreign exchange intervention, and monetary and fiscal policy adjustment. Policy responses have been generally along the lines envisioned in the institutional view. CFMs on outflows were generally used in crisis or imminent crisis circumstances as part of a broad policy package, although in a few cases they were used outside of crisis circumstances when countries faced particular challenges. CFMs were mostly temporary, non-discriminatory, and comprehensive when implemented during crises, features that the institutional view envisioned as being desirable. A few countries that experienced large inflows during this period relied mainly on macroeconomic policies broadly in line with the institutional view. New CFMs on inflows were limited, while some CFMs introduced in inflow periods before 2012 were eased. Several countries also used MPMs to manage financial cycle risks, which in some cases were related to capital flows.*

**14. The analysis in this section discusses country experiences in handling capital flows after 2012.** It focuses on 26 economies that were the largest recipients of capital flows or faced sizable changes in capital flows, as well as countries that experienced crises or other particular challenges during the period (Figure 5). These countries represent diverse income levels, policy frameworks, and geographical locations, as well as a variety of policy responses.<sup>10</sup> While capital flows provided benefits to these countries, for example by helping finance investment and allowing an efficient allocation of resources, changes in their evolution also required policy responses at times. The review of country experiences in managing capital flows draws from IMF Article IV consultation staff reports during 2013–16 and other Fund documents and public information.<sup>11</sup> Box 2 also provides an overview of the experience in frontier markets.



**15. Most countries relied on macroeconomic policies to manage capital flow reversals.** This approach was largely in line with the institutional view’s recommendation that macroeconomic policies should normally suffice for handling capital flow reversals, except in crisis-type circumstances when CFMs could also be useful as part of a broad policy package (Box 1). The policy responses varied according to country circumstances and generally comprised exchange rate flexibility, foreign exchange intervention, and monetary policy adjustment, while fiscal policy was largely driven by cyclical and debt sustainability considerations. CFMs on capital outflows were generally used in crisis or imminent crisis circumstances, as part of a package of macroeconomic policy adjustment.<sup>12</sup> CFMs were also used, however, in a few cases when countries faced particular challenges (discussed below).

<sup>10</sup> The sample comprises Belarus, Brazil, Chile, China, Colombia, Cyprus, FYR Macedonia, Greece, Hong Kong SAR, Iceland, India, Indonesia, Ireland, Israel, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Singapore, South Africa, Thailand, Turkey, and Ukraine. Episodes of large inflows and capital flow reversals were identified based on discussions in Article IV consultation staff reports. While many countries experienced a steady decline in net capital inflows during 2013–2016, in other countries the episodes of capital flow reversal took place only in certain periods (at end-2013 and 2014 in Chile, since mid-2015 in China, between mid-2013 and early 2014 in India, during 2015 Q2–Q3 in Indonesia, through late 2014 in Malaysia, and between mid-2013 and late 2015 in Ukraine). In the latter cases, the analysis focuses on policy responses to the decline in capital flows during those periods.

<sup>11</sup> The terms “Article IV consultation” and “Article IV” are used interchangeably in this paper.

<sup>12</sup> The characterization of country circumstances is based on information contained in staff reports.

### Box 1. Institutional View on Liberalization and Management of Capital Flows: Key Elements<sup>1</sup>

#### Capital flow liberalization

- CFMs are measures that are specifically designed to limit capital flows. Capital flow liberalization refers to the removal of CFMs. Liberalization does not rule out the maintenance of prudential measures nor the temporary re-imposition of CFMs under certain circumstances, if capital flows pose risks to macroeconomic or financial system stability.
- Countries are better placed to benefit from capital flow liberalization if they have achieved certain thresholds of financial and institutional development. Risks can be magnified by gaps in countries' financial and institutional development. Even at high levels of financial and institutional development, risks need to be managed carefully.
- The degree of liberalization that is appropriate for a country at a given time depends on its specific circumstances, notably its financial and institutional development. Countries with extensive and long-standing CFMs would likely benefit from careful further liberalization in an orderly manner. There is, however, no presumption that full liberalization of capital flows is an appropriate goal for all countries at all times. There is some scope for the long-term maintenance of CFMs provided they are not adopted for balance of payments purposes and that there are no less distortive measures available that are effective.
- Capital flow liberalization needs to be well planned, timed, and sequenced, especially in order to ensure that its benefits outweigh the costs, as it could have significant domestic and multilateral effects. The "integrated approach" proposes a systematic approach to liberalization that is consistent with each country's institutional and financial development.

#### Managing capital flows

- Countries can better absorb capital flows and reap their benefits by implementing sound macroeconomic policies, deepening financial markets, strengthening financial regulation and supervision, and improving institutional capacity.
- Inflow surges or disruptive outflows can give rise to macroeconomic and financial stability risks. In order to manage these risks, 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.
- CFMs should not be used to substitute for or avoid warranted macroeconomic adjustment. In certain circumstances, introducing CFMs can be useful for supporting macroeconomic policy adjustment and safeguarding financial system stability. CFMs should seek to avoid discrimination based on residency, and the least discriminatory measure that is effective should be preferred.
- In practice, policy advice on CFMs in response to managing capital inflow surges or disruptive outflows would mainly apply to CFMs introduced to previously open portions of the capital account.

1/ IMF (2012, 2013a, and 2015a).

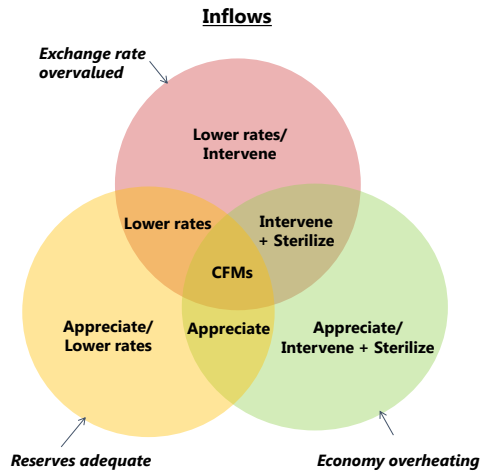
**Box 1. Institutional View on Liberalization and Management of Capital Flows:  
Key Elements (continued)**

- Policymakers in all countries, including those that generate capital flows, should take into account how their policies affect others. Source countries should better internalize the spillovers from their monetary and prudential policies, because push factors, including changes in global liquidity conditions, also contribute importantly to capital flows, in addition to pull factors.
- Spillovers from prudential policies in source countries include the global economic and financial stability risks associated with cross-border activities of institutions in their jurisdictions. Progress with global financial regulatory and supervisory reform will help in this respect, as will reform and implementation of new macroprudential frameworks in member countries. Members with global systemically important financial institutions and systemic nonbank financial institutions in their jurisdictions would play an important role in this effort.
- Cross-border coordination of policies would help to better harness the benefits of capital flows, mitigate the multilateral risks, and encourage the implementation of policies that are conducive to the effective operation of the international monetary system.

***For managing inflow surges:***

- The appropriate policy mix depends on a variety of country-specific conditions, including macroeconomic and financial stability, financial development, and institutional capacity.
- In certain circumstances, introducing CFMs can be useful, particularly when underlying macroeconomic conditions are highly uncertain, the room for macroeconomic policy adjustment is limited, or appropriate policies take undue time to be effective.
- CFMs could also be appropriate to safeguard financial stability when inflow surges contribute to systemic risks in the financial sector. Systemic financial risks that are unrelated to capital flows may be better addressed by macro-prudential measures that are targeted specifically to deal with such challenges.
- CFMs should be targeted, transparent, and generally temporary—being lifted once the surge abates, in light of their costs.
- When capital inflow surges contribute to both macroeconomic and systemic financial sector risks, a measure that is designed to limit capital inflows in order to address such risks can be both a CFM and an MPM. Some prudential measures can continue to be useful after a surge abates for managing systemic risks. Their usefulness relative to their costs needs to be evaluated on an ongoing basis, including by assessing whether there are alternative ways to address the prudential concerns that are not designed to limit capital flows.

**Box 1. Institutional View on Liberalization and Management of Capital Flows: Key Elements (concluded)**



The diagram does not prescribe or take a view on the appropriate combination of the three policies—only on circumstances under which each might be appropriate.

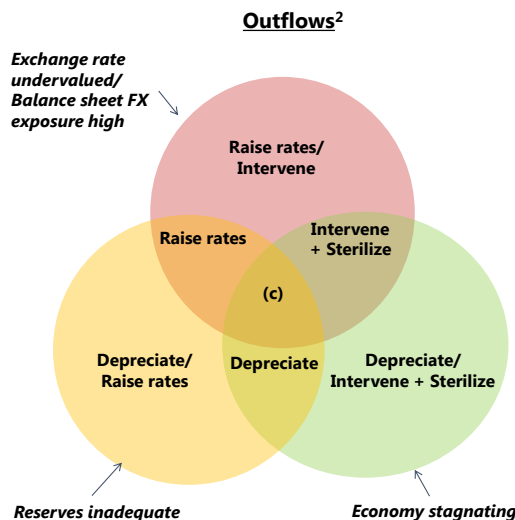
Each circle represents cases where the relevant condition is met. For example, the top circle (“Exchange rate overvalued”) represents cases where the exchange rate is assessed to be overvalued. The intersection of all three circles reflects cases where the exchange rate is overvalued, reserves are judged to be adequate, and the economy is overheating.

**In such cases of limited policy flexibility**, as represented by the intersection of all three circles, CFMs can be useful to support, and not substitute for, the needed macroeconomic adjustment.

CFMs could also be useful to **safeguard systemic financial stability** under certain circumstances. At other times, CFMs can help gain time when taking the needed policy steps requires time, when the macroeconomic adjustments require time to take effect, or when there is heightened uncertainty about the underlying economic stance due to the surge.

**For responding to disruptive outflows:**

- When responding to disruptive outflows, CFMs should generally be used only in crisis situations or when a crisis is considered to be imminent. CFMs are more effective when they are implemented as part of a broad policy package that includes sound macroeconomic policies as well as financial regulation. They should be temporary, being lifted once crisis conditions abate, and may need to be adjusted on an ongoing basis in order to remain effective.



The diagram does not prescribe or take a view on the appropriate combination of the three policies—only on circumstances under which each might be appropriate.

Each circle represents cases where the relevant condition is met. For example, the top circle (“Exchange rate undervalued”) represents cases where the exchange rate is assessed to be undervalued. The intersection of all three circles (the area marked “c”) reflects cases where the exchange rate is undervalued, reserves are judged to be inadequate, and the economy is stagnating. A country in (c) is likely to be in crisis or imminent crisis.

**In such cases of limited policy flexibility**, as represented by the intersection of all three circles, alternative options, including official financing (e.g., UFR) and, in crisis or imminent crisis, introducing temporary outflow CFMs and/or easing existing inflow CFMs can be useful to support, and not substitute for, the needed macroeconomic adjustment.

In crisis circumstances, **financial stability considerations** can also warrant CFMs to provide breathing space while fundamental policy adjustment is implemented.

2/ IMF (2015a).

**16. The combination of policies reflected countries' macroeconomic circumstances**

(Table 1). Most countries that experienced capital flow reversals had negative output gaps, exchange rates that were either overvalued or broadly in line with fundamentals, and adequate levels of foreign exchange reserves. Policy responses can be classified in three main groups: a small set of countries that relied on exchange rate depreciation without intervening in the foreign exchange market or using CFMs; a large group of countries that used the exchange rate as a shock absorber but also intervened in the foreign exchange market, but did not use CFMs; and countries that used CFMs, including in crisis-type circumstances.

- **In countries where currencies were not undervalued and balance sheet foreign exchange exposures were not large, exchange rate flexibility was a primary shock absorber.** Currency depreciation reflected capital outflow pressures, and in some cases terms of trade shocks, and it facilitated adjustment of a number of currencies that were assessed to be overvalued at the beginning of the period (Brazil, Indonesia, Philippines, Russia, South Africa, and Turkey). Where currencies started out undervalued (Korea and Malaysia), depreciation was limited and it did not exacerbate undervaluation.
- **Most countries undertook some foreign exchange intervention, having built up adequate reserves to do so.** Meanwhile, a few countries that allowed significant depreciation did not intervene (Chile and South Africa). Intervention was mainly geared toward mitigating excessive volatility and ensuring orderly market conditions (Mexico, Poland, and Thailand). In some cases, it was carried out amid concerns about the impact that depreciation could have on balance sheets with unhedged foreign exchange exposures (Indonesia and Peru). In some countries, intervention led to reserves falling below adequate levels (Malaysia and Turkey), but the abatement of outflow pressures provided an opportunity to start to rebuild reserve buffers (Indonesia and Turkey) or reduce forward positions that had been built to meet demand for foreign currency hedging following the taper tantrum (Brazil).
- **Monetary policy responded to the mix of external and domestic pressures.** Interest rate changes were used in combination with currency depreciation and intervention. Despite having negative output gaps, some countries hiked interest rates in response to rising inflation pressures, driven in part by the currency depreciation (Brazil, Russia, and South Africa), or in response to external financing pressures (FYR Macedonia, India, Russia, and Turkey). Several countries were, however, able to loosen monetary policy (Chile, China, Korea, Mexico, Peru, Poland, and Thailand), as inflation was within the target despite generally large depreciations.
- **Fiscal policy was tightened in some countries.** Capital flow reversals and lower commodity prices found many countries with higher public debt ratios, and less space for a countercyclical response compared with the 2008–09 episode. Fiscal policy response in some cases was linked to the reduction of external imbalances and used as a buffer against external shocks. A number of countries rationalized expenditure, cut fuel subsidies, or announced fiscal consolidation plans (Brazil, India, Indonesia, and South Africa). A few were

able to loosen fiscal policy to support their economies amid negative output gaps (Chile, China, Korea, Philippines after the 2013 typhoon, Russia in 2014–15, and Thailand).

**17. A few countries were able to ease macroeconomic policy to support the real economy even in the face of capital outflows.** Chile, Korea, and Thailand were able to loosen both monetary and fiscal policy as negative output gaps opened. They had adequate fiscal buffers at the onset of the external pressures, and inflation expectations remained well anchored even when in Chile and Thailand the exchange rate depreciated substantially. China and Peru eased macroeconomic policies while also using CFMs on outflows (see discussion of CFMs below).

**Table 1. Circumstances and Policy Responses during Capital Flow Reversal Episodes<sup>1</sup>**

	Circumstances				Policy responses				
	Output gap	Inflation	REER assessment (pre/post) <sup>2</sup>	Reserves adequate	Policy rate <sup>3</sup>	NEER <sup>3</sup>	FX intervention	Fiscal policy <sup>4</sup>	CFMs on outflows
Brazil	+/-	↑	OV/less OV	✓	↑	↓	Yes	↔/↔	No
Chile	+/-	↑	IL/UV	✓	↓	↓	No	↔↔	No
India	-	↑/↓	IL/IL	✓	↑	↓/↑	Yes	↔↔	No
Indonesia	-	↓	OV/IL	✓	↓	↓/↑	Yes	↔↔	No
Korea	-	↓	UV/UV	✓	↓	↑/↓	Yes	↔↔	No
Malaysia	-/+	↑/↓	UV/UV	✓/✗	↑	↓	Yes	↔↔	No
Mexico	-	↓	IL/IL	✓	↓/↑	↓	Yes	↔↔	No
Peru	+/-	↑	IL/OV	✓	↓/↑	↓	Yes	↔↔	Yes
Philippines	+	↓	OV/less OV	✓	↑	↓/↑	Yes	↔↔/↔↔	No
Poland	-	↓	IL/IL	✓	↓	N/C	Yes	↔↔	No
South Africa	-	↑/↓	OV/less OV	✗	↑	↓	No	↔↔	No
Thailand	-	↓	IL/IL	✓	↓	↓	Yes	↔↔	No
Turkey	-	↑	OV/less OV	✓/✗	↑	↓	Yes	↔↔/↔↔	No
China	-	↓	IL/IL	✓	↓	↓	Yes	↔↔	Yes
FYR Macedonia	-	↓	IL/UV	✓	N/C/↑	N/C	Yes	↔↔	Yes
Russia	+/-	↑	OV/IL	✓	↑	↓	Yes	↔↔	Yes
Belarus	-	↑	OV/less OV	✗	↑/↓	↓	Yes	↔↔	Yes
Cyprus	-	↓	OV/IL	✓	N/A	↓	N/A	↔↔	Yes
Greece	-	↓	OV/OV	N/A	N/A	↓	N/A	↔↔	Yes
Ukraine	-	↑	OV/less OV	✗	↑	↓	Yes	↔↔	Yes

<sup>1</sup> Country-specific capital flow reversal episodes that took place between 2013 and 2016.

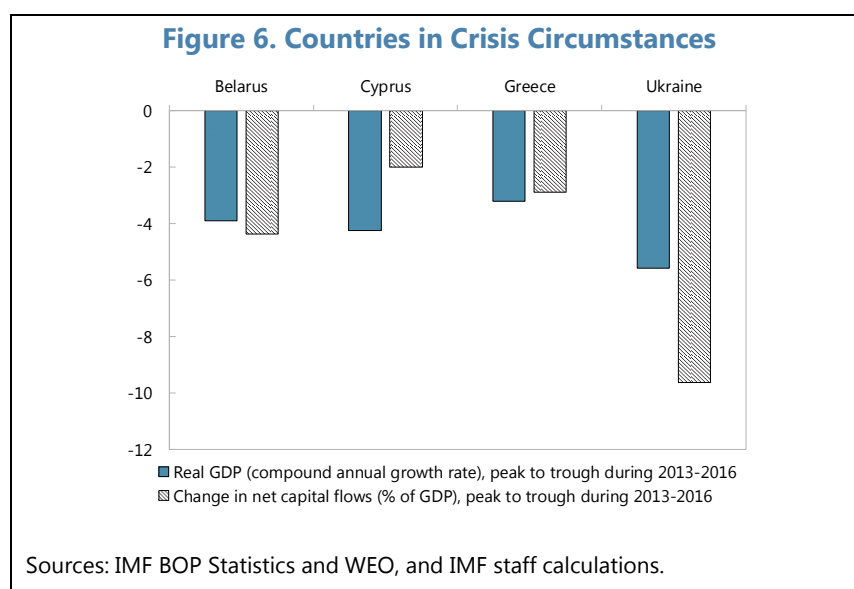
<sup>2</sup> Real Effective Exchange Rate (REER) assessments at the beginning and end of the corresponding capital flow reversal episode. OV: overvalued, IL: in line with fundamentals and desired policy settings, UV: undervalued. Some countries also had balance sheets with high foreign exchange exposures.

<sup>3</sup> N/C: no change.

<sup>4</sup> Fiscal policy: ↔↔ expansionary, ↔↔ contractionary.



**18. CFMs on outflows were used mainly in crisis circumstances or when a crisis was considered imminent, broadly in line with the institutional view.** These cases included Belarus, Cyprus, Greece, Iceland, and Ukraine, which experienced financial system stress, balance of payments pressures, output declines, current account deficits, and deteriorating public finances (Figure 6).<sup>13</sup> The CFMs aimed to halt the drain on deposits (Cyprus and Greece), avoid overshooting after exchange rate liberalization (Ukraine), and address mounting currency pressures (Belarus). In most cases, CFMs were accompanied by monetary and fiscal tightening, as well as structural and financial sector reforms. Except in Belarus, macroeconomic adjustment was implemented in the context of a Fund-supported program.<sup>14</sup>



**19. At the same time, some countries used CFMs on outflows in circumstances that did not represent a crisis or imminent crisis but posed particular challenges.**<sup>15</sup> The considerations invoked in their use differed based on country circumstances, including risks to economic and financial stability owing to macroeconomic rebalancing (China) or global shocks (Russia), significant balance sheet exposures in foreign currency (Peru), and financial contagion risks (FYR Macedonia). These circumstances posed special challenges for the countries concerned and may pose an emerging issue for other countries were they to recur elsewhere.

**20. CFMs on outflows generally had the features that the institutional view envisioned as being desirable.** Most of the measures were comprehensive in crisis circumstances, and often differentiated by currency (as opposed to residency). In some cases, the measures were phased out as envisaged at the time of their implementation (FYR Macedonia and Russia). CFMs implemented

<sup>13</sup> Iceland's CFMs on outflows were mainly introduced prior to the period under review.

<sup>14</sup> The use of CFMs was not part of conditionality in the Fund-supported programs.

<sup>15</sup> The assessment of crisis circumstances takes into consideration various indicators, including, among other things, gross external financing needs (as a proxy for imminent liquidity problems) and debt sustainability indicators.

during crises were considered temporary in all cases, although only Cyprus has been able to remove them fully. Others (Greece, Iceland, and Ukraine) are in the process of removing CFMs in a calibrated manner. Countries generally developed roadmaps for easing or removing CFMs based on milestones that set out the macroeconomic and financial sector conditions necessary to safely advance the liberalization process (Cyprus and Ukraine). In Iceland, conditions included resolution of the failed banks' estates that minimized capital outflows.

**21. In some cases, CFMs on outflows were not comprehensive but instead were targeted to address directly the source of risks.** In cases where countries were not in a crisis but faced particular challenges, the imposition or tightening of CFMs was not broad-based but aimed to target identified risks stemming from financial institutions' foreign currency forward and short-term derivatives positions using limits and reserve requirements (China and Peru), potential regional contagion risks using bans on capital flows to Greece (FYR Macedonia), or potentially large reserve losses using limits on state-owned enterprises' net foreign assets (Russia). The effectiveness and appropriateness of targeted CFMs for handling these types of situations is an emerging issue that merits further clarification.

**22. CFMs on outflows were assessed by country teams to be generally effective when implemented with the needed macroeconomic adjustment.** Since CFMs were often introduced alongside other policies in the context of macroeconomic adjustment, their specific effects are difficult to disentangle from the effects of other policies. Nonetheless, CFMs, particularly in crisis-type circumstances, seem to have helped avert a more severe crisis by providing breathing space to implement macroeconomic adjustment. They slowed capital outflows and deposit flight (Cyprus and Greece), and helped prevent a rapid unwinding of nonresident positions in domestic local currency assets that would have overwhelmed the country's buffers (Iceland). In some cases, a further tightening of CFMs was used in order to strengthen their effectiveness (Ukraine).

**23. At the same time, CFMs had costs.** CFMs can impose costs such as tightening financing constraints, limiting residents' options for asset diversification, requiring costly monitoring and enforcement, and impeding financial development, as noted in the institutional view. In some countries, CFMs led to cumbersome approval systems for current account transactions (Greece), prompting the authorities to ease the measures as soon as conditions permitted. They also entailed burdensome regulations, transparency concerns, elevated risk premia, and residents' inability to tap opportunities for outward FDI (Iceland). In some cases, the imposition of CFMs prompted the development of a parallel foreign exchange market, as macroeconomic imbalances persisted, leading eventually to the removal or loosening of the measures (Belarus). In others, CFMs may have slowed the development of hedging instruments (Peru).

**24. The few countries that experienced some inflow episodes during 2013–16 handled them mainly with macroeconomic policies, with the use of CFMs being rare.** Brief increases in inflows occurred in Colombia, India, Indonesia, Thailand, and Turkey.<sup>16</sup> In response, countries relied

<sup>16</sup> Episodes of large inflows were experienced at different points in time for different countries: Colombia, Thailand, and Turkey in early 2013, Indonesia in 2014, and India between early 2014 and early 2015.

principally on exchange rate flexibility, accompanied in some cases by foreign exchange intervention and monetary easing. Most countries allowed their currencies to appreciate (Colombia, India, Indonesia, and Thailand). At the time, these currencies were in line with fundamentals and none appreciated enough to become overvalued. Intervention was underpinned in some cases by concerns about currency appreciation leading to possible overvaluation and by a need to build up reserves (Colombia and Indonesia). Foreign exchange purchases did not lead to excessive levels of reserves in any of these countries. Some countries were able to lower interest rates (Colombia, Thailand, and Turkey) to differing degrees depending on inflation pressures, while fiscal policy was generally neutral or accommodative. Other groups of countries, including reserve currency issuers, also experienced significant inflow pressures during this period (Czech Republic and Switzerland). Their policy response relied on intervention mechanisms and easing monetary conditions, including unconventional monetary policies, where deflationary dynamics were driven in part by significant currency appreciation.

**25. Only a few countries used CFMs on inflows during this period.** Iceland established unremunerated reserve requirements on selected debt inflows.<sup>17</sup> While no inflow surge was observed at the time this measure was imposed, the authorities' objective was to curb incentives for new carry trades, and prevent any prospective capital inflows from hampering the monetary policy transmission to long-term interest rates. Given inflationary pressures and no obvious signs of credit-fueled asset price pressures, staff recommended other policy responses, including currency appreciation (as the exchange rate was not overvalued) and reserve accumulation (ahead of the planned liberalization of CFMs on resident outflows).

**26. Some countries that had used CFMs on inflows during the 2009–12 period eased them but in many cases the measures have remained in place.** CFMs on inflows were removed once the inflow surge abated in Israel and Russia and they were eased partially in Brazil, Indonesia, Korea, and Peru.<sup>18</sup> The main consideration indicated by the authorities in IMF staff reports for keeping those measures in place after the reversal of capital inflows was financial stability risks, in part related to capital flow and exchange rate volatility (Indonesia, Korea, and Peru).

---

<sup>17</sup> China and Costa Rica were the other cases that used CFMs on inflows. China introduced limits on new net open currency positions in 2013, with higher limits on foreign banks. Costa Rica granted the central bank authority to activate for a period of up to six months an unremunerated reserve requirement and an increase in the income tax rate on interest earned by nonresidents on investments in private fixed income assets. However, by the time the measures were approved by Congress in 2014, capital inflows had moderated and the measures were never used.

<sup>18</sup> During 2013–14, Brazil eased the tax on inflows related to short-term external loans, and reduced the tax on financial transactions (IOF) rate to zero for most types of inflows, but tightened the tax on remittances related to obligations of credit card administration companies for purchases by their clients. During 2013–15, Indonesia reduced the minimum holding period for central bank bills, but did not change the limit on the daily balance of banks' short-term external debt or the reserve requirement on deposit accounts in foreign currency. During 2013–15, Peru eased reserve requirements, but maintained its taxes on nonresident gains from financial derivative transactions. During 2015–16, Korea lowered the levy on banks' non-deposit foreign currency liabilities, but kept the limits on banks' foreign exchange derivative contracts, and the withholding tax on interest income on nonresident purchases of treasury and monetary stabilization bonds.

**27. Countries that experienced capital inflow surges have also used MPMs to limit systemic financial risk.** In some cases, they used MPMs that were also CFMs (MPM/CFMs), such as measures used to discourage borrowing in foreign currency. These measures have been used in a range of circumstances, including large inflows through cross-border lending, credit and housing booms, liquidity and currency risk, and excess leverage.<sup>19</sup> For example, Korea, in an effort to contain liquidity and foreign exchange risks related to vulnerabilities from short-term external borrowing introduced during 2010–11 ceilings on banks’ loan-to-deposit ratios, a leverage cap on banks’ foreign exchange derivative positions, and a levy on foreign exchange funding.<sup>20</sup> Other examples include differentiated reserve requirements in Peru and additional stamp duties on nonresidents’ mortgage transactions in Singapore. The use of a combination of measures highlights that systemic financial risks from capital flows can arise both directly, for example through cross-border lending to domestic banks and corporates, and indirectly, for example through asset valuation and collateral effects.

**28. MPMs were adjusted based on the assessment of risks along the financial cycle.** The MPMs most actively introduced, tightened, or relaxed were limits on loan-to-value (LTV) ratios (Chile, China, India, Indonesia, Ireland, Israel, Korea, Poland, Singapore, and Turkey), which were sometimes applied together with caps on debt-to-income (DTI) ratios. Other frequently used measures included changes in reserve requirements, liquidity coverage ratios (LCR), capital requirements and loan provisioning (particularly for mortgages), and changes in risk weights. Because capital flows and financial cycles may not always be precisely synchronized, subject to leads and lags, MPMs were sometimes used to address financial cycles, or maintain resilience, even when the capital flow surges had abated (Brazil, China, Indonesia, and Korea). A key question going forward is how to further articulate the role of macroprudential policy frameworks in helping to reduce systemic financial risks stemming from capital flows, taking into account countries’ financial and institutional development (see section on emerging issues).

---

<sup>19</sup> Whether a measure is seen as an MPM or an MPM/CFM is based on the stated policy objective, design of the tool, and country-specific circumstances such as the context in which it is introduced. While CFMs are designed to limit capital flows, MPMs are designed to limit systemic financial risks. These risks can include, but are not limited to, vulnerabilities associated with capital flows and exposure of the financial system to exchange rate shocks. The institutional view and the Fund’s framework for macroprudential policies (IMF, 2013c and 2014a) recognize the potential overlap. When capital flows contribute to the build-up of systemic financial risks, measures designed to limit capital flows to address these risks could be seen as being both an MPM and a CFM (MPM/CFM). These measures can be an appropriate part of the policy toolkit, but neither of them should be used to substitute for warranted macroeconomic adjustment.

<sup>20</sup> In the case of Korea, the authorities are moving to replace those MPM/CFMs with MPMs, in line with staff recommendations.

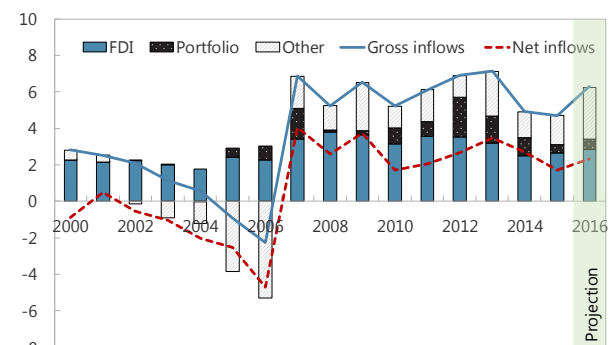
## Box 2. Recent Experience with Capital Flows in Frontier Markets

**Frontier markets became increasingly integrated with global financial markets in the 2000s, particularly after the global financial crisis.<sup>1</sup>** Two broad patterns emerged for these countries in terms of the size and composition of capital flows.

**Volume.** Inflows remained on an upward path even after the 2008–09 global crisis, peaking at 7 percent of GDP in 2013 (Box Figure 1). Both domestic factors—such as relatively stronger growth performance compared to other emerging markets and AEs—and external factors—favorable terms-of-trade for commodity-exporting countries and low global interest rates played a role (IMF, 2015b). Conversely, flows have been declining since 2014, particularly in commodity exporters and economies with deteriorating economic prospects (for example, Ghana, Mongolia, Nigeria, and Zambia). Similar to emerging markets, preliminary data on equity and bond flows from mutual funds suggest a recovery in inflows to frontier markets since mid-2016, partly related to market expectations of a prolonged period of low interest rates in AEs.

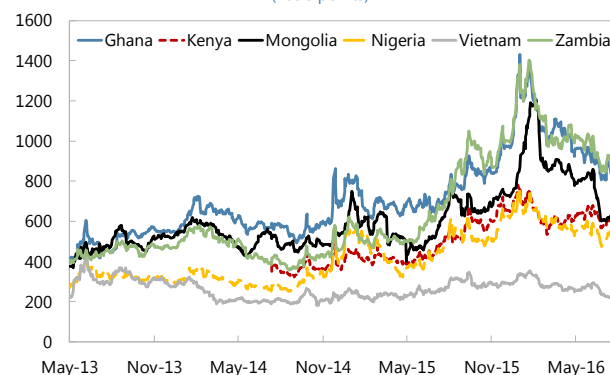
**Composition.** While capital flows were dominated by FDI inflows until the mid-2000s, non-FDI inflows grew sizably after the crisis. Specifically, the recent period saw several frontier markets taking opportunity of favorable global liquidity conditions to issue sovereign bonds (for example, Ghana in 2012–16, Kenya in 2014, and Zambia in 2012 and 2014–15). Other non-official flows partly represented increases in countries' cross-border bank exposures through syndicated bank loans. In some countries, foreign holdings also accounted for a sizable share of domestic currency debt (Ghana and Zambia). Consistent with the reversal in portfolio inflows, sovereign spreads on frontier market debt widened from the second half of 2014 but have been narrowing since March 2016 (Box Figure 2).

**Box Figure 1. Capital Flows to Frontier Markets, 2000–2016**  
(Percent of GDP, weighted averages)



Note: 2016 numbers are projections based on projected growth rates from the WEO. Sources: IMF FFA database, WEO, and IMF staff estimates.

**Box Figure 2. Selected Frontier Markets: Sovereign Spreads**  
(Basis points)



Source: Bloomberg.

1/ Frontier markets include countries that are closest to emerging markets in terms of financial depth, access to international financial markets, and institutional strength (for more details see Appendix II of IMF, 2014b). The countries in this group include Bangladesh, Bolivia, Cote d'Ivoire, Ghana, Kenya, Mongolia, Mozambique, Nigeria, Papua New Guinea, Senegal, Tanzania, Uganda, Vietnam, and Zambia.

**Box 2. Recent Experience with Capital Flows in Frontier Markets (concluded)**

**A few frontier markets made a broad-based push in opening their capital accounts in the mid-2000s, although, in most cases, de jure openness has not moved much** (Box Figure 3).

For example, Uganda and Zambia have had highly open capital accounts since the mid-1990s, while others are still relatively closed (Bangladesh, Tanzania, and Vietnam). Ghana and Papua New Guinea made significant changes to their policies during the mid-2000s—in the case of Ghana, this coincided with the passing of a new Foreign Exchange Law in 2006; Papua New Guinea opened its borders to all asset types in the second half of the 2000s.

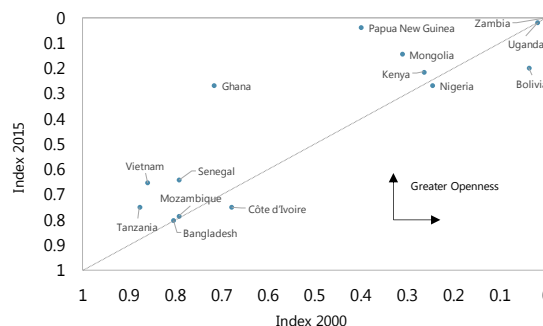
**Although exchange rates were allowed to serve as shock absorbers to the fluctuations in capital flows, adjustments were partial or delayed in several cases.**

In 2013, when net inflows were still rising in most countries, exchange rates appreciated, although at different rates across countries. Some countries also accumulated reserves (Bangladesh, Kenya, and Tanzania). In a few cases, capital inflows, particularly through the issuance of sovereign debt, were used to finance widening fiscal and current account deficits, resulting eventually in a sharp rise in debt levels and higher risks relating to debt distress (Box Figure 4). Inflation also rose in some countries even as exchange rates appreciated, reflecting a combination of procyclical policies, limited exchange rate adjustment or unsterilized interventions, and consequent expansion in monetary aggregates.

During 2014–2015, most countries used a combination of exchange rate depreciation and foreign exchange intervention to meet the capital flow reversal pressures. Only Nigeria deployed CFMs before abandoning its de facto peg in June 2016, and initiating some reforms to address the underlying fiscal problems.<sup>2</sup> Overall, exchange rate adjustment to the level consistent with fundamentals has not been complete in many countries owing in part to challenges associated with sharp increases in inflation from pass-through effects, and risks to balance sheet exposures.

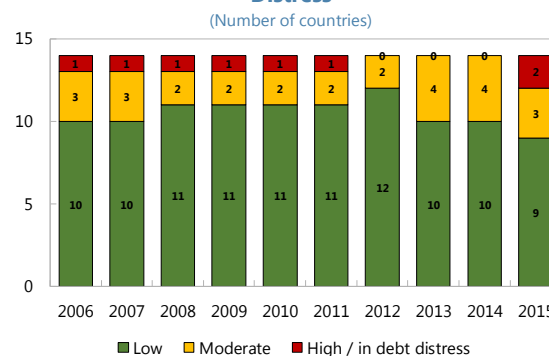
2/ The Central Bank of Nigeria introduced foreign exchange restrictions in June 2015, consisting of administrative measures to contain foreign exchange demand by importers and ease pressure on gross reserves (see Selected Issues paper of Nigeria 2016 Article IV staff report).

**Box Figure 3. Frontier Markets: De Jure Openness to Capital Flows, 2000 versus 2015**



Sources: AREAER and IMF staff estimates.

**Box Figure 4. Frontier Markets: Evolution of Risk of Debt Distress**



Sources: IMF Debt Sustainability Framework for LICs and IMF staff calculations.

## B. Role of Source Countries

**29. Source country policies, including monetary policies and financial supervision and regulation, can influence the size and riskiness of global capital flows.** In the period since the adoption of the institutional view, monetary policy developments in major AEs have taken different paths, with a gradual start of U.S. monetary policy normalization but continued easing in the euro area and Japan. In turn, progress was made in global financial sector reforms, which may have helped toward mitigating the riskiness of cross-border capital flows.

**30. Source country monetary policies affected the volume of capital flows.** After a prolonged period of low interest rates and abundant global liquidity, the announcement by the U.S. Fed in May 2013 of a possible tapering of asset purchases (the so-called “taper tantrum”) marked a new phase of reduced global liquidity and triggered a wave of capital outflows and exchange rate depreciation in recipient countries.<sup>21</sup> Monetary policy developments in the euro area and Japan also had important, though smaller, effects on capital flows. Monetary easing by the European Central Bank (ECB) since 2014 triggered capital inflows and currency appreciation in non-euro EU countries.<sup>22</sup> In turn, monetary accommodation by the Bank of Japan triggered a global portfolio rebalancing that led to capital inflows to other AEs’ bond markets and some inflows to EMDEs in Asia.<sup>23</sup> AEs’ monetary policies had cross-spillovers on each other, with ECB easing triggering lower yields in U.S. Treasury bonds.<sup>24</sup>

**31. The net impact of source country monetary policies has been much debated.** Source countries have recognized the potential cross-border spillovers, but considered that, overall, the monetary stimulus has been beneficial for other countries, even as a more balanced policy mix would be desirable. The U.S. Fed analyzed outward spillovers of its policy actions, and the potential second-round effects, and concluded that any spillovers from monetary policy normalization depend on the conditions under which normalization takes place.<sup>25</sup> Fed statements also indicated that economic and financial interlinkages between the United States and the rest of the world are a factor in its policy decisions. In the euro area, the authorities considered low growth and inflation to be a more serious threat to other economies than temporary weakness in the euro.<sup>26</sup> They agreed that a more balanced policy mix would be preferable, but pointed out that countries with fiscal

---

<sup>21</sup> IMF (2014c) defines global liquidity operationally as the factors that drive the supply of funding from international financial centers and thereby affect the ease of global financing.

<sup>22</sup> IMF Country Report No. 16/212, “Cross-Country Report on Spillovers: Spillovers from Unconventional Monetary Policies.”

<sup>23</sup> Japan Article IV staff report 2016, and IMF Working Paper No. 16/99, “Spillovers from Japan’s Unconventional Monetary Policy to Emerging Asia: A Global VAR Approach.”

<sup>24</sup> IMF Spillover Report 2015.

<sup>25</sup> United States Article IV staff reports 2013 and 2014.

<sup>26</sup> Euro Area Article IV staff report 2015.

space did not see merit in using it.<sup>27</sup> In Japan, the authorities indicated that successful implementation of all three arrows of “Abenomics” (comprising monetary and fiscal easing, and structural reforms) would have positive spillovers to the global economy through stronger domestic growth, and that completing all three arrows was important to avoid overburdening monetary policy. They also noted that spillovers have been benign so far, with spillovers through the trade channel being more limited than in past episodes of large depreciations owing to increased offshoring of production and other structural factors.<sup>28</sup>

**32. Recent progress toward global financial sector reforms may help reduce the riskiness of capital flows.** As noted in the institutional view, a key benefit of the financial sector reform agenda would be to improve the infrastructure for intermediating capital flows, helping to better manage the associated risks. Progress has been made toward strengthening financial regulation and supervision, with a view to increasing financial sector resilience and addressing the shortcomings revealed by the global financial crisis. While the agenda is not complete, several of the reforms undertaken in recent years could help reduce the riskiness of cross-border capital flows (Box 3). Some regulatory reforms, however, may have indirect and possibly temporary side effects on capital flows, partly contributing to deleveraging, withdrawal of corresponding banking relationships, and reduced liquidity in some markets.

**33. Official reserve flows did not appear to have much impact on securities markets of reserve currency issuers.** Official flows related to reserve accumulation by central banks in EMDEs declined in 2013 and 2014, and were negative in 2015 and 2016 (Figure 7). These developments reflected the downward trend in net capital inflows to recipient countries observed since 2013 and foreign exchange intervention in several countries. The institutional view indicated that since reserve holdings largely comprise government securities of reserve currency issuers, changes in official reserve flows could unduly influence prices in these securities markets. However, the drop in reserves by EMDE central banks did not appear to have affected these prices significantly, as reflected by the decline in the yields of German and Japanese government bonds in the context of continued monetary policy accommodation, and in U.S. Treasury bond yields since 2014.

---

<sup>27</sup> Euro Area Article IV staff report 2016.

<sup>28</sup> Japan Article IV staff report 2016.

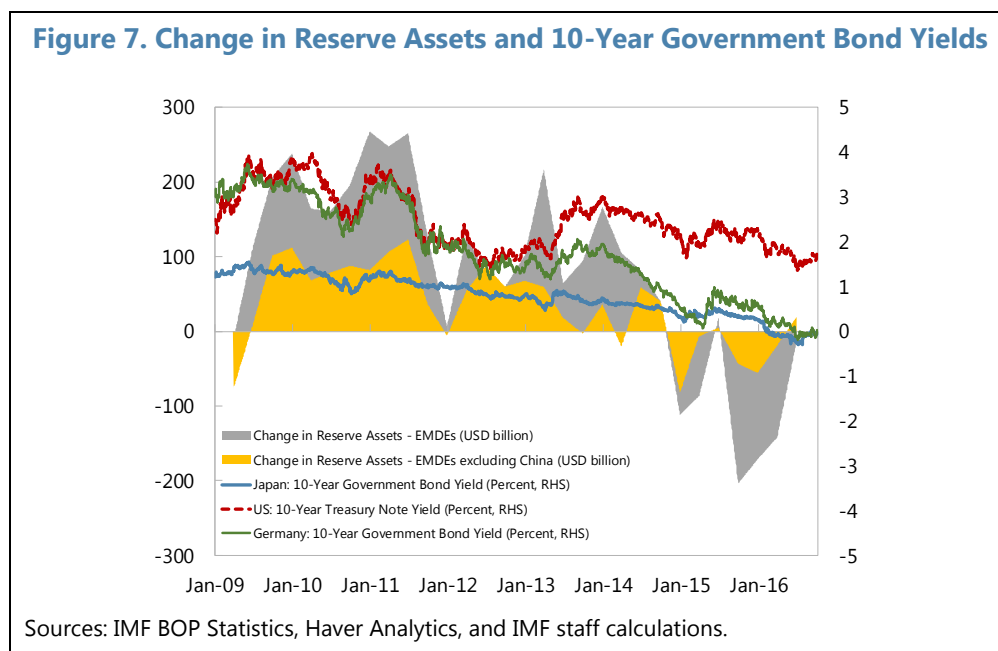


### Box 3. Progress in the Global Financial Regulatory and Supervisory Agenda

**Significant progress in regulatory and supervisory reforms has been made in recent years in some areas, particularly banking.** However, the policy agenda is not complete, and banks in some jurisdictions still have to deal with legacy issues and adapt their business models. The main areas of progress and remaining challenges include the following:<sup>1</sup>

- **Banking.** The main elements of the Basel III framework—capital, liquidity, and leverage—have moved from agreement to implementation. Work is ongoing on addressing variability in risk weights and sovereign risk; setting capital floors using a revised standardized approach; and calibrating the leverage ratio for global systemically important banks (G-SIBs).
- **G-SIBs.** The resolution framework for G-SIBs has made an important breakthrough with the international agreement on total loss-absorbing capacity. However, successfully improving G-SIB resolvability still needs to be accompanied by broad resolution powers and tools.
- **Insurance.** Globally Systemically Important Insurers (G-SIIs) were designated in 2013. There is agreement to improve the supervision and resolution framework of G-SIIs. However, many jurisdictions are yet to fully align their resolution regimes with international best practice.
- **Accounting.** Progress has been made by the International Accounting Standards Board (IASB) on key accounting reforms, including a forward-looking credit loss recognition which allows banks to recognize impairment losses earlier and in higher amounts. The reforms will help enhance investor confidence in bank balance sheets and improve capital market transparency and integrity.
- **Non-banks and non-insurers.** Progress has continued across the over-the-counter (OTC) derivatives reform agenda. The majority of FSB jurisdictions has now in force frameworks for determining when standardized OTC derivatives should be centrally cleared. Cross-border availability of central counterparty clearing houses (CCPs) has increased, facilitating continued cross-border activity and the expansion of central clearing. Important policy work remains on the sizing of CCP buffers, stress testing frameworks, and cross-border resolution. Progress has also been limited in expanding the regulatory perimeter to cover shadow banking.

1/ BCBS progress reports to the G20, FSB progress reports, and IASB project reports (<http://www.fsb.org/>; <http://www.iasplus.com/en/resources/ifrsf/iasb-ifrs-ic/iasb>).



### C. Capital Flow Liberalization

*In recent years, a modest trend toward greater capital flow liberalization has continued, reflecting countries' aim to reap the benefits of capital flows. Some countries with long-standing CFMs that achieved certain levels of financial and institutional development have moved to liberalize further. In general, countries adopted a pace and sequencing of liberalization that took into account macroeconomic and financial sector policies and conditions, complemented by supporting reforms, broadly in line with the integrated approach in the institutional view. Countries have re-imposed CFMs in some cases in response to a variety of circumstances.*

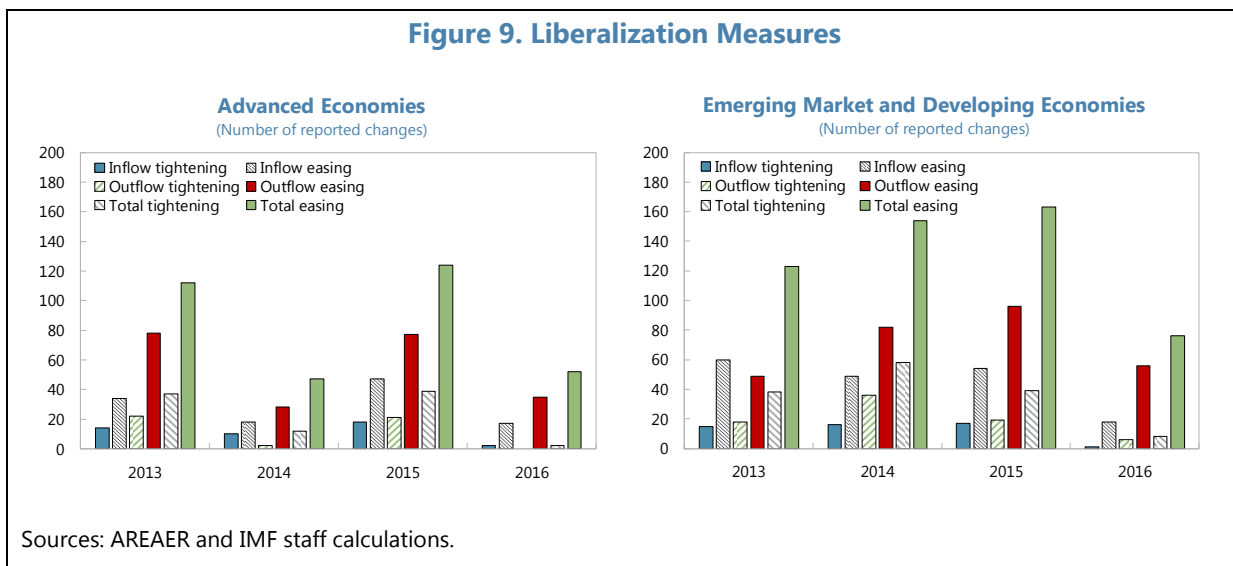
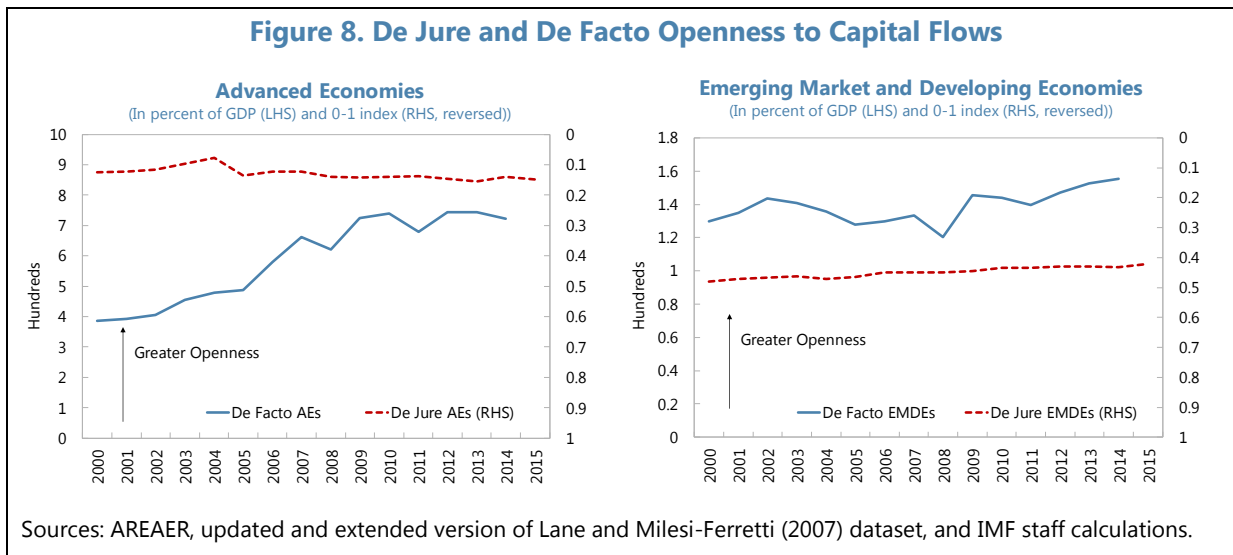
#### 34. The gradual trend toward capital flow liberalization continued during the recent period.

While *de jure* financial account openness shows little change, other measures suggest that the trend toward liberalization has continued, especially in EMDEs (Figure 8). The *de jure* index of financial account openness shows the share of transactions that are subject to capital controls as reported in the Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). Since it is based on a binary indicator, it does not measure the intensity of CFMs, and therefore does not reflect the liberalization in countries that have eased existing CFMs as opposed to removing them completely.<sup>29</sup> In fact, countries have eased a large number of CFMs in recent years, reporting

<sup>29</sup> The *de jure* financial account openness index is based on staff estimates of the average ratio of the number of restricted transaction categories in the financial account to the total number of transaction categories for which information is available in the AREAER. The index ranges from 0 to 1, and a decrease in the index indicates greater openness. Data for 2005 onward are affected by methodological changes implemented in 2005 that harmonized the AREAER capital control entries and the OECD Code of Liberalization of Capital Movements. Liberalization of capital flows is reflected in the *de jure* index only when all CFMs on a capital transaction have been removed; easing of CFMs without removing all the CFMs on the particular transaction does not affect the index. The *de facto* index is measured

(continued)

more than 1,000 changes in their financial account regulations (excluding neutral changes) during 2013–16, of which about four-fifths reflect easing of CFMs (Figure 9, Table 2).<sup>30</sup> The trend toward liberalization is more noticeable among EMDEs than AEs.<sup>31</sup>



by the sum of external assets (excluding official foreign exchange reserves) and liabilities as a proportion of each country's GDP in each year. An increase in the index indicates greater openness.

<sup>30</sup> The overwhelmingly larger number of liberalizing changes in part reflects that some countries introduced a few wide-ranging measures at the onset of crisis and gradually liberalized them in multiple steps (Cyprus). However, liberalization measures were also undertaken by countries that did not face crises.

<sup>31</sup> Countries with less flexible exchange rate regimes tend to have more restrictive financial accounts unless they restrain monetary policy autonomy, such as countries with a currency board or those with no separate legal tender.

**Table 2. Liberalization Measures by Type of Transactions, 2013–16**

	Inflow		Outflow		Total	
	Tightening	Easing	Tightening	Easing	Tightening	Easing
<b>Advanced economies</b>						
Controls on portfolio investments	0	1	10	26	10	27
Controls on derivatives	0	1	3	20	4	22
Controls on direct investment	2	22	5	27	7	49
Differentiated reserve requirements	0	0	0	0	0	0
Other	42	92	27	145	69	237
<b>Total</b>	<b>44</b>	<b>116</b>	<b>45</b>	<b>218</b>	<b>90</b>	<b>335</b>
<b>Emerging market and developing economies</b>						
Controls on portfolio investments	15	53	28	79	44	139
Controls on derivatives	0	2	3	14	8	44
Controls on direct investment	5	14	7	28	14	46
Differentiated reserve requirements	2	22	0	0	3	23
Other	27	90	41	162	74	264
<b>Total</b>	<b>49</b>	<b>181</b>	<b>79</b>	<b>283</b>	<b>143</b>	<b>516</b>

Note: The numbers refer to total changes over 2013–2015, as well as changes that have been reported so far in 2016. Changes in the regulations that are considered neutral are not included in the table. The “Total” column also includes changes that affect both inflow and outflow transactions. “Other” includes, but is not limited to, controls on credit operations, account transactions, and repatriation requirements.

Source: AREAER.

**35. Countries with long-standing restrictions liberalized their capital accounts.**<sup>32</sup> Most of the CFMs eased during this period were in India, followed by China and South Africa. Some countries (India, Malaysia, and Thailand) followed a path of liberalization embedded in an overarching economic and financial sector development plan. China reiterated its commitment to capital account convertibility, most recently in its 13<sup>th</sup> Five-Year Plan (2016–20), gradually establishing the preconditions for greater financial openness. Some countries where liberalization is already well advanced further eased CFMs. For example, Korea extended the repatriation requirement for proceeds from capital transactions above a certain threshold level from 1½ years to 3 years.

**36. The steps toward capital flow liberalization broadly mirrored the institutional view’s integrated approach, and were supported by complementing reforms.** The “integrated approach” suggests the removal of CFMs in a manner that is properly timed and sequenced taking into account other policies and conditions, notably macroeconomic and financial sector prudential policies. It also envisions liberalizing through successive, and often overlapping, phases. The phases comprise the liberalization of FDI inflows, followed by FDI outflows and long-term portfolio flows, and finally short-term portfolio flows. The phases require a range of progressively deeper and

<sup>32</sup> Countries that have taken notable steps toward liberalization in recent years include China, Colombia, India, Indonesia, Malaysia, South Africa, and Thailand. These countries introduced 127 easing measures in 2013–16.

broader supporting reforms to the legal, accounting, financial, and corporate frameworks. The review of experience indicates that countries generally liberalized gradually, considering the effects of capital flow volatility, against the background of domestic economic conditions that were largely favorable, with positive economic growth and relatively low inflation. The sequence of liberalization generally followed the one envisioned in the institutional view. During the period under review, on aggregate, CFMs on both inflows and outflows were relaxed with liberalization of both inflows and outflows about equal in number. Specifically:

- *Maturity of flows.* Long-term flows were generally liberalized prior to short-term flows. Some of the liberalization undertaken during this period, however, also affected short-term flows. For instance, to deepen financial markets and provide hedging instruments in the context of greater exchange rate flexibility, CFMs were eased on the derivative markets (China, Colombia, India, Indonesia, and Malaysia) and on portfolio flows.<sup>33</sup>
- *Types of flows.* The majority of CFM easing related to restrictions on portfolio flows. In most cases, inward FDI had been liberalized prior to portfolio investment, in line with the integrated approach. Liberalization of outflows generally lagged that of inflows. External borrowing and lending remain mostly controlled, with few changes, except in India.<sup>34</sup>
- *Supporting reforms.* Countries implemented supporting reforms, including with respect to the monetary framework, exchange rate regime, and financial sector policies. Monetary frameworks increasingly allowed exchange rate flexibility. India established a new monetary framework by formally adopting a flexible inflation targeting framework in February 2015. China liberalized domestic interest rates in 2015 and moved in tandem toward more market-based monetary operations, though financial instability ensued shortly after, including strong capital outflow pressures. Countries also took steps to improve financial sector regulation and supervision, including the use of macroprudential policy instruments such as the framework for countercyclical buffers (India and Indonesia) and Basel III liquidity coverage ratios (Malaysia).

**37. Some countries re-imposed CFMs on outflows during liberalization.** In the face of increasing outflows, China suspended the approval of new quotas for investments by Qualified Domestic Institutional Investors (the main form of outward portfolio investments by residents) in 2015. It also tightened enforcement of CFMs and introduced the unremunerated reserve requirement on foreign exchange forwards to stem significant depreciation pressures.<sup>35</sup> While these measures were put in place without a specific timeframe for removal, the authorities expressed their general commitment to a gradual liberalization over the medium term. In other cases, after

<sup>33</sup> India eliminated the residual maturity limit at time of purchase of government securities, Indonesia reduced the minimum holding period of central bank certificates, and China allowed nonresident institutions to participate in the domestic interbank market.

<sup>34</sup> India applies a CFM (the all-in-cost ceiling) on external borrowing flexibly depending on the direction of capital flow pressures.

<sup>35</sup> The reserve requirement was initially imposed on residents and extended to nonresidents in 2016.

significant progress in liberalizing the financial account, CFMs were re-imposed in crisis conditions (Belarus and Ukraine). In response to foreign exchange pressures in 2014, Belarus and Ukraine introduced a number of measures restricting foreign exchange transactions to stabilize the foreign exchange market and safeguard financial stability. The conditions in which the re-imposition of CFMs are appropriate merit further analysis, particularly outside of crisis circumstances (see section on emerging issues).

## MULTILATERAL ASPECTS

*The institutional view can facilitate a more consistent global approach on capital flow issues across the various international agreements, in particular by taking into account country-specific macroeconomic and financial stability considerations in determining the appropriate policy response. Developments and ongoing debates in the international community echo some of the considerations laid out in the institutional view. Progress has also been made in international cooperation and coordination of financial policies, both among national supervisors and in the macroprudential area, to address risks and spillovers that can affect capital flows.*

**38. The institutional view noted the usefulness of promoting a more consistent approach among international frameworks for how to handle capital flows.** The institutional view can help foster global dialogue and promote a more consistent approach to the design of policies for dealing with capital flows across the various international agreements. It takes into account country circumstances and macroeconomic and financial stability considerations in determining the appropriate policies and pace and path of capital account liberalization.

**39. A discussion is underway at the OECD to review the OECD Code of Liberalization of Capital Movements (the “Code”).**<sup>36</sup> The OECD Code was established in 1961 and provides a framework agreed among adhering governments for countries to progressively remove barriers to the movements of capital.<sup>37</sup> The review of the Code is the first since 1992, and is being conducted to ensure its continued relevance, improve clarity and predictability in the implementation of the Code, and increase the transparency of measures introduced by adherents (Box 4). The IMF and OECD continue to cooperate through the OECD Advisory Task Force on the Code (ATFC), including in the review of the Code.

<sup>36</sup> The Code is binding for the 35 OECD members. Since 2012, the Code has also been open for adherence by non-OECD countries with the same rights and responsibilities as OECD members, and 4 countries have applied for adherence (<http://www.oecd.org/investment/investment-policy/oecd-code-capital-movements-review.htm>).

<sup>37</sup> Adherents are able to lodge reservations to maintain restrictions on operations that they may not be in a position to liberalize at the time of adherence to the Code; impose restrictions on short-term operations at any time; and reintroduce restrictions on other operations through invocation of the derogation clause for situations of severe balance-of-payments difficulties or serious economic and financial disturbance.

#### Box 4. Review of OECD Code of Liberalization of Capital Movements

**The review of the Code began in March 2016 and is expected to be completed by 2018.** It aims to (i) reaffirm the broad scope of the Code by clarifying the treatment of measures equivalent to restrictions and reviewing the treatment of new financial instruments; (ii) develop understandings on the treatment of measures with stated prudential objectives, including currency-based CFMs; (iii) consider the merits of rebalancing operations covered by the Code’s liberalization lists; and (iv) consider ways of strengthening the governance and improving the decision-making process for the implementation of the Code.

**A key issue under discussion include the treatment of measures that restrict capital flows for macroprudential purposes.** The vast majority of MPMs fall outside the scope of the Code, but some can be considered restrictions under the Code. The review of the Code will consider the treatment of certain measures, including national adaptations of Basel III requirements such as the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR), that differentiate by currency to address liquidity and currency mismatch risks.

**40. In recent years, free trade agreements (FTAs) and bilateral investment treaties (BITs) have increasingly provided balance-of-payments and other exceptions to their free capital flow ("transfers") obligations.**<sup>38</sup> The Trans-Pacific Partnership (TPP), signed in February 2016 and yet to be ratified, allows countries greater flexibility than other recent FTAs in terms of policy responses to deal with disruptive capital flows.<sup>39</sup> It allows countries to limit payments or transfers relating to capital movements (other than for FDI) for up to 18 months when facing serious balance-of-payments difficulties or capital movements threaten to cause serious difficulties for macroeconomic management.<sup>40</sup> The Canada-EU Comprehensive Economic and Trade Agreement (CETA), signed in October 2016 and yet to be ratified, contains a transfers obligation and a temporary safeguard exception in the event of balance-of-payments and external financial difficulties.<sup>41</sup> Among the 40 BITs signed in 2012–14, 70 percent included exceptions to the free transfers obligation in the event of balance-of-payments difficulties or other financial and economic pressures compared to fewer than 10 percent of the 862 BITs concluded from 1962 to 2011.<sup>42</sup> The institutional view noted that if a country introduces CFMs considered appropriate under the

<sup>38</sup> United Nations Conference on Trade and Development (UNCTAD), “Investment Policy Framework for Sustainable Development,” 2015 report, page 100. The transfers obligation in such agreements typically requires that a country allow capital related to a broad range of (FDI and non-FDI) investments to move freely into and out of its territory. Typically, the obligation is legally binding and enforceable through state-to-state dispute settlement; in some agreements, it is also enforceable by individual investors under the investor-state dispute settlement (ISDS) provisions. Many BITs and FTAs explicitly defer to the Fund regarding restrictions on payments and transfers for current account transactions, allowing them only in compliance with the Fund’s Articles of Agreement.

<sup>39</sup> For example, the bilateral FTA between Korea and the United States signed in 2007 (“KORUS”) provides for exceptions up to 12 months.

<sup>40</sup> The use of restrictions is subject to a number of conditions, including that they not be used to avoid necessary macroeconomic adjustment, and that they be phased out progressively.

<sup>41</sup> In the event of a dispute, the parties are to rely on the IMF for information and assessment of a country’s balance of payments and external financial situation to base their conclusions. This IMF role seems to be modeled on the Fund’s role in the World Trade Organization (WTO) under General Agreement on Trade in Services (GATS) Article XII.

<sup>42</sup> UNCTAD, “Taking Stock of IIA Reform,” International Investment Agreement (IIA) Issues Note No. 1, March 2016, Table 2. Other exceptions may also apply, including measures taken for prudential or essential security reasons.

institutional view, this may potentially be in conflict with its obligations under other international agreements. This issue may be addressed by bringing more consistency among existing bilateral and multilateral treaties.

**41. The institutional view noted the importance of further international cooperation and coordination of financial policies to address multilateral risks and policy spillovers that can affect capital flows.** International frameworks have sought to coordinate financial supervision and regulation among countries to address risks originating from abroad to the soundness of individual financial institutions. Some examples of such cross-border cooperation and coordination are the Vienna Initiative and the euro area’s Single Supervisory Mechanism (SSM). The Vienna Initiative, first launched in 2009, sought to limit deleveraging in Eastern Europe by Western European banks. Supervisors and banks cooperated to limit withdrawal of funding and capital by parent banks from their subsidiaries and branches in Eastern Europe. After new systemic concerns emerged in late 2011, Vienna Initiative 2.0 was launched in January 2012, and implemented largely in 2013 and 2014. The SSM, led by the ECB in cooperation with national supervisors, has conducted centralized supervision of systemically important euro area banks since 2014, with a view to address risks, including those arising from cross-border lending and bank funding linkages in the euro area.

**42. Cooperation among macroprudential authorities can also help to address cross-border sources of systemic risk.** Such sources of risk include externalities that can add a layer of systemic risk, including negative externalities from a lack of appropriate macroprudential action; leakages that can undermine the effectiveness of domestic action; potentially undesirable spillovers for other countries; and migration of activities owing to uneven frameworks across countries.<sup>43</sup> The usefulness of coordination is already recognized in international and regional mechanisms, such as the Basel III agreement on the countercyclical capital buffer and Fund surveillance of macroprudential policies. Coordination efforts in macroprudential policy are generally informal and rely on sharing information and experiences, often facilitated by multilateral institutions like the IMF and BIS, in part because macroprudential policy is a relatively recent policy innovation where the cross-border effects of policies are still being understood.

## ROLE OF THE FUND

*Since its adoption, the institutional view has played an important role in Fund surveillance and related policy advice on capital flows across the membership, as well as in capacity building. Policy advice has used the institutional view as a basis for consistency. Fund surveillance in source countries has discussed spillovers and recommended policies to achieve domestic objectives that minimize significant global spillovers. The Fund continues to work with country authorities and other international organizations to further improve capital flow data.*

**43. The IMF’s institutional view does not alter members’ rights and obligations under the Fund’s Articles of Agreement or under any other international agreements.** The IMF’s Articles

<sup>43</sup> IMF-FSB-BIS (2016).



do not impose an obligation on member countries to liberalize their capital account policies, while recognizing that members have the right (albeit not unlimited) to “exercise such controls as are necessary to regulate international capital movements”.<sup>44</sup> Under the Integrated Surveillance Decision, the Fund is nevertheless required to assess capital flow policies that have a significant impact on a member’s domestic or balance of payments stability or have significant outward spillovers with implications for global stability. In addition, although countries are under no obligation to adjust domestic policies in the interest of global stability, the IMF is expected to discuss negative spillovers and recommend alternative policies that can achieve similar domestic objectives while minimizing significant global spillovers. As such, the IMF would take into account the institutional view in its policy advice and where relevant, in assessing members’ capital account policies, particularly in the context of surveillance. Beyond surveillance and policy advice, the institutional view has no mandatory implications for the Fund’s financing role. In a few cases with a Fund-supported program in the recent period, while there was no conditionality related to capital flows, some countries adopted CFMs, usually in crisis circumstances.

**44. With capital flows seen as beneficial, the institutional view has played an important role in surveillance and related policy advice.** Fund advice draws on the institutional view and guidance in related areas, such as macroprudential policy, foreign exchange intervention, reserve adequacy, and debt sustainability. The institutional view is integrated into the Guidance Note for Surveillance under Article IV Consultations. It has been applied in Article IV consultations and other engagements across the membership. The IEO (2015) noted that the institutional view was a significant step in providing staff with a framework for advice on capital flow issues.<sup>45</sup> It also saw scope to improve the consistency and traction of Fund policy advice on capital flows, as well as policy coordination among source and recipient countries. In the subsequent period, the institutional view helped improve consistency and evenhandedness in surveillance, the review process, and policy advice provided to members. Feedback from the survey and other engagement with country authorities suggests that capital flows are generally beneficial, sound policies and institutions play a key role in managing capital flows, and the institutional view has been useful for the membership as a point of reference when responding to capital flows and communicating with market participants (Box 5 and Annex I).

**45. The IMF has highlighted that source countries have a role to play in minimizing adverse spillovers to recipient countries.** Both in bilateral and multilateral surveillance (External Sector Report, Global Financial Stability Report, Spillover Report, and WEO), staff discussed spillovers from advance economy policies and recommended alternative country-specific policy configurations. Specifically, the IMF has advocated for a country-specific three-pronged approach to bolster global growth and minimize spillovers. For the United States, a well-calibrated normalization of monetary policy, supported by clear communication and a more-balanced policy mix (including a

---

<sup>44</sup> Article VI, Section 3.

<sup>45</sup> Other studies, such as Gallagher and Tian (2014), also note the role that the institutional view played in shaping Fund assessments and policy advice on capital flow issues.

credible medium-term fiscal consolidation plan) was seen as crucial to minimize adverse spillovers and contribute to international financial stability.<sup>46</sup> With regard to the euro area and Japan, staff advised to complement monetary accommodation with other policy measures to support their economic recoveries, and thus reduce reliance on monetary policy. For the euro area, staff recommended further actions to address financial fragmentation, structural gaps, and bank balance sheet repair; while for Japan, staff called for bolder structural reforms and credible fiscal consolidation.<sup>47</sup>

**46. The institutional view has helped inform Fund technical assistance and capacity building on capital flow-related issues.** For instance, Fund staff assisted the authorities in Bangladesh (2014) and Myanmar (2014–15) with their capital flow liberalization plans. In the context of Fund-supported programs, staff provided advice in Cyprus (2013) and Ukraine (2015) on the use of CFMs under crisis conditions and on the design and implementation of a roadmap for their gradual removal (2014–15). TA missions were fielded to Greece (2015) and Iceland (2014) on the gradual liberalization of CFMs. In addition, numerous TA missions, training courses, and seminars have been conducted for member countries on external sector statistics, which aim to improve the analysis of cross-border capital flows.

**47. There have been notable improvements in capital flow data in recent years.** Improvements reflected collaboration among the IMF, country authorities, and other international organizations. They included greater coverage and breakdown, increased frequency, and improved timeliness across data sets related to capital flows, such as direct investment, portfolio investment, and financial derivatives. These improvements were possible as enhancements were introduced in existing surveys, such as the Coordinated Portfolio Investment Survey (CPIS), efforts were made to compile data (for example, publication of the Handbook on Securities Statistics by the BIS, ECB, and IMF in May 2015), and several countries adopted the latest data standards on external sector statistics (the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6)) and increased their participation in data surveys (on direct and portfolio investment).<sup>48</sup>

**48. Continued efforts by the global community to close remaining data gaps are key for surveillance and policy advice.** While progress has been made on data availability, capital flow data could still be further improved in terms of coverage, timeliness, and granularity. It is important to continue increasing the participation of countries in existing data surveys, and encourage them to provide a full breakdown of the data, and to increase the frequency of financial account data,

<sup>46</sup> United States Article IV staff reports 2013–16, IMF Spillover Report 2014, and IMF Global Financial Stability Report, October 2013.

<sup>47</sup> Euro area Article IV staff reports 2015–16, Japan Article IV staff reports 2013–16, IMF Spillover Report 2014, and IMF Global Financial Stability Report, October 2013.

<sup>48</sup> The number of economies that reported quarterly balance of payments data increased from 135 in 2012 to 140 in 2016, and quarterly international investment positions from 78 in 2012 to 106 in 2016. Currently, 120 economies report their BOP and IIP data on a BPM6 basis. The number of economies that participated in the CPIS increased from 78 in 2012 to 82 in 2016, while the number of economies that participate in the Coordinated Direct Investment Survey (CDIS) stood at around 100 since 2012.

moving from quarterly to monthly data, and to weekly or daily data where possible. It would be helpful to track the direction of flows among countries to better understand linkages and interdependence, as well as to obtain more detailed information on balance sheets and off-balance sheet data to assess vulnerabilities (see section on emerging issues). Initiatives to address some of these gaps are ongoing as part of the Fund's continued collaboration with member countries on data issues, as well as through the second phase of the Data Gaps Initiative (DGI-2) launched by the G20 in September 2015 and led by the FSB and IMF, which includes recommendations on capital flow data.<sup>49</sup>

---

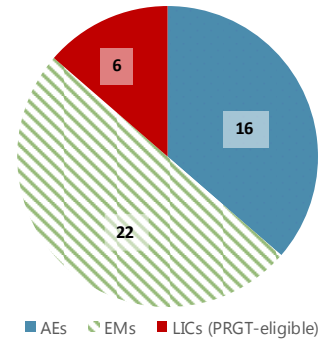
<sup>49</sup> The first phase of the G20 DGI was launched in 2009 to address data gaps revealed by the global financial crisis and support enhanced policy analysis. The main objective of DGI-2 is to implement the regular collection and dissemination of reliable and timely statistics for policy use, with a focus on datasets that support monitoring risks in the financial sector and analysis of vulnerabilities, interconnections, and spillovers. See IMF-FSB (2016) for details.

**Box 5. Engagement with Country Authorities**

**A survey collected authorities’ views on capital flow developments, policy responses, and the use of the institutional view.** There were a total of 44 responses.

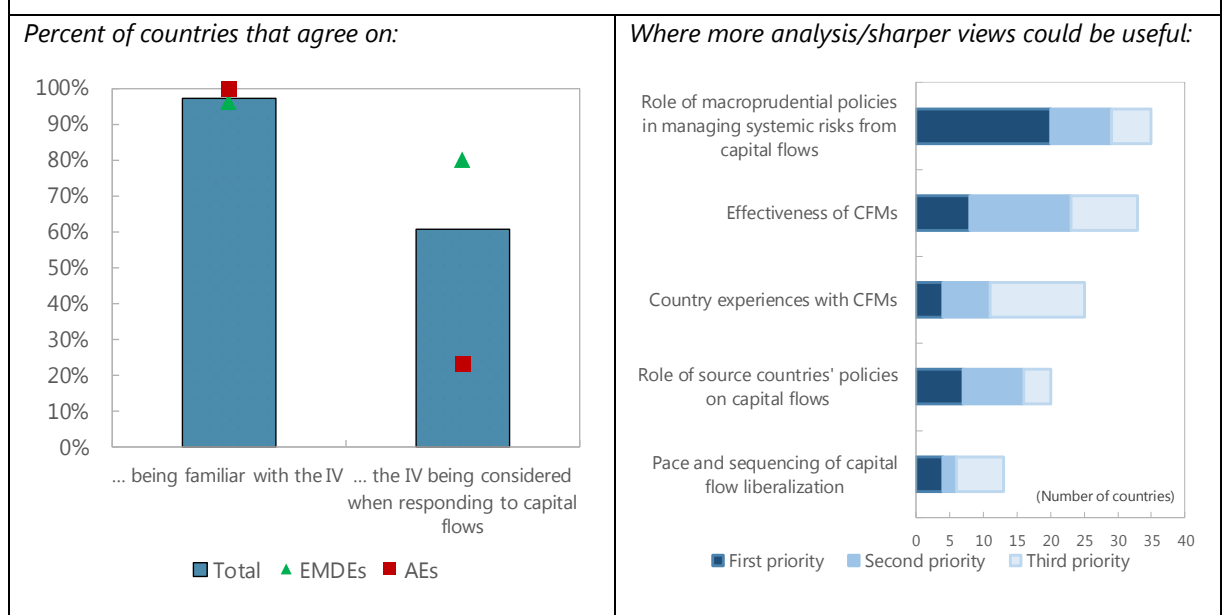
Authorities’ concerns regarding capital flows during 2013–2016 mainly centered on their volatility and volume, and their impact on the exchange rate and financial stability. Pull and push factors were seen as important determinants of capital flows, both by AEs and EMDEs. Exchange rate flexibility was the main policy tool in handling inflows and outflows during the recent period. Authorities indicated that the institutional view is well known, and was considered (in particular by EMDEs) when responding to capital flows (Box Figure 1). More analysis and sharper views on the role of MPMs in managing systemic risks arising from capital flows would be useful, followed by analysis on the effectiveness of CFMs.

**Responses by Country Grouping**



**Feedback from country authorities has also focused on a similar set of issues.** The authorities considered capital flows as beneficial and saw the institutional view as a useful anchor to communicate with market participants and as a reference to guide policies on the liberalization and management of capital flows. Experience with managing capital flows in the recent period was seen as largely mirroring the recommendations in the institutional view. Countries have underscored the importance of strong policy frameworks and institutions, including flexible exchange rates and deep, well-supervised financial markets, in enhancing resilience to volatility. Authorities have called for more guidance on the role of MPMs, pace and sequencing of liberalization, and addressing data gaps.

**Box Figure 1. Responses to Selected Survey Questions**



## EMERGING ISSUES

*An overarching challenge for policymakers remains how best to draw benefits from capital flows while managing the risks, at both the global and the country level. The recent experience and ongoing discussion highlight a few issues as meriting further clarification or elaboration. These issues include: the interaction between macroprudential and capital flow policies, especially the role of macroprudential policy frameworks in addressing systemic financial risks arising from capital flows; clarifying further the relevant conditions for the re-imposition of CFMs during liberalization and when countries face particular challenges; and how the institutional view can serve as a framework for greater multilateral consistency in the design of policies for dealing with capital flows.*

**49. The role of macroprudential policy frameworks in managing systemic financial risks from capital flows merits further elaboration.** Capital flow liberalization needs to pay careful attention to preserving financial stability. Macroprudential policy plays an important role, therefore, in helping countries harness the benefits of capital flows while managing the risks. Countries have relied on a combination of policies in response to capital flows, including the use of macroprudential policies to contain risks from financial cycles. MPMs can help mitigate the build-up of systemic risks over the financial cycle, including those arising from capital flows both directly, through cross-border lending to domestic banks and corporates, and indirectly through asset valuation and collateral effects. They can also increase the resilience of the financial system to aggregate shocks, limiting the risks of financial stress and crises, and contribute to reduce broader macroeconomic risks. In this context, there is scope to examine further how capital flows can affect systemic financial stability, including the channels of transmission, and how MPMs can help reduce related systemic financial and macroeconomic risks in specific financial and institutional settings.<sup>50</sup>

**50. Assessing the effectiveness of CFMs remains an ongoing issue.** CFM effectiveness has been an important consideration in the institutional view, particularly for countries with well-developed financial systems. Recent literature has focused on CFMs on capital inflows, finding them effective for reducing macroeconomic and financial vulnerabilities associated with capital flows. But the impact of CFMs on the volume and composition of capital flows, the effectiveness of their specific design features, the extent to which circumvention erodes the effectiveness of CFMs over time, and spillovers from their use warrant further analysis (Box 6). Moreover, although CFMs on outflows have in practice been considered effective to contain the severity of crises or address specific pressures, more research is needed on the circumstances and types of CFMs that may be appropriate to stem outflows.

**51. The role of source countries is an issue that continues to merit attention, including monitoring spillovers and risks from incomplete collective policy action.** Capital flows have been driven by a combination of push and pull factors, including growth and interest rate differentials between recipient and source countries as well as global risk aversion. Both recipient

<sup>50</sup> In addition, the AREAER will start collecting and publishing systematically information on macroprudential policies of members.

and source country policies influence capital flows. While countries are not expected to change domestic policies in the interest of global stability, they should take into account the impact of their policies on others. The IMF should discuss associated spillovers and recommend alternative policies that achieve similar domestic objectives but minimize significant negative spillovers. In this context, the IMF has been examining spillovers associated with monetary conditions in AEs and promoting a broad three-pronged approach involving monetary, fiscal and structural measures taking into account specific country circumstances. Moreover, multilaterally coordinated efforts have been advocated to increase the effectiveness of national policies, but collective action to bolster global growth and contain side effects of domestic policies remains elusive.

**52. Improving the capital flow data remains a priority.** Data limitations, particularly balance and off-balance sheet data, complicate the assessment of risks and vulnerabilities. Robust and timely data on capital flows are essential for formulating effective policy responses and for surveillance and policy advice. Progress has been made in recent years, including through the implementation of BPM6 and the G20 Data Gaps Initiative, to improve the coverage and frequency of capital flow-related data. But it remains important to further improve balance of payments data with regard to timeliness, scope, and granularity, to reduce reporting lags and increase the frequency. More detailed balance sheet (by sector and foreign currency exposure) and off-balance sheet data (such as contingent liabilities and derivative transactions) remains important to better assess vulnerabilities. Better data are also essential for countries on the path to liberalization by improving understanding of the risks. In addition, Fund staff has developed a taxonomy of CFMs adopted by countries since 2008 (Annex II), drawing on the AREAER and assessments in IMF staff reports based on the definition set forth in the institutional view, which can serve as a useful reference for analysis.

**53. The circumstances under which the re-imposition of CFMs may be necessary during liberalization deserve further analysis.** A number of countries have re-imposed CFMs in a variety of circumstances. Temporary re-imposition of CFMs was considered in the institutional view as appropriate and consistent with an overall strategy of capital flow liberalization.<sup>51</sup> They could be warranted if an economy cannot safely handle capital flows due to premature or improperly sequenced liberalization and may thereby risk creating crisis-type conditions. There is a need for greater analysis of the conditions that could lead to the re-imposition of CFMs and the lessons that experiences with liberalization may provide for frontier markets.

**54. The use of CFMs in other challenging circumstances is also an emerging issue.** CFMs have been imposed by a few countries that were not in crisis or imminent crisis circumstances to deal with specific challenges. These include situations when the economy faced clear and present systemic risks from external contagion (for instance, to financial stability from potential capital outflows that could lead to a crisis) and where CFMs used were more targeted. This points to the potential use of CFMs in cases where crisis risks become very high. It would thus be useful to understand better the conditions justifying the use of CFMs in such circumstances, the nature and

---

<sup>51</sup> Temporary re-imposition of CFMs was also considered in the institutional view in certain cases including inflow surges and crisis-type circumstances.

scope of CFMs, and whether they can adequately address the source of risks. A further consideration of these challenges, or perhaps an elaboration of crisis-type conditions, may be useful.

**55. There have been other issues that have arisen in the debate which go beyond the institutional view.** They are still open questions on which views, analysis, and evidence remain divided and there is no proposal being made to change the institutional view. The issues are whether CFMs should be used on a structural basis to influence the composition of capital flows and to enhance policy autonomy. While the institutional view sees a role for CFMs used for prudential purposes on a longer-term basis in some circumstances, the question is whether CFMs could be used on a structural basis to change the composition of capital flows toward those that may be considered safer and less prone to creating macroeconomic and financial vulnerabilities. Views remain divided, however, with regard to the desirable and undesirable features of particular types of capital flows, their volatility characteristics, and the desirability of maintaining CFMs for longer in terms of market discipline, monitoring and enforcement, circumvention, asset diversification, and other distortions. On policy autonomy, the institutional view is clear that CFMs could be used temporarily in certain well-defined circumstances and should not substitute for warranted macroeconomic adjustment. A question is whether CFMs could be used to gain policy autonomy on a longer-term basis by restricting capital mobility to deal with the “impossible trinity”. Evidence on the scope and scale of CFMs needed to gain policy autonomy and the implications in terms of capital flows and macroeconomic outcomes is limited. The use of CFMs for policy autonomy also raises issues of asymmetry. In particular, the extent to which CFMs on outflows in non-crisis circumstances would allow greater policy space, especially for those countries with high external financing needs or facing inflation pressures associated with currency depreciation, or those with already high public debt, remains in contention. The possibility of using CFMs in these circumstances could trigger or exacerbate capital flow reversals, and could end up substituting for necessary macroeconomic adjustment.

**56. A key issue going forward is how the IMF’s institutional view can further promote a more consistent global approach in handling capital flows.** There are evolving views on managing capital flows in international settings, including the ongoing review of the OECD Code and the inclusion of provisions allowing policies for managing capital flows in FTAs and BITs. Within the Fund’s mandate to promote the economic and financial stability of its members and the effective operation of the international monetary system, the institutional view aims at supporting domestic and global stability when assessing and advising on appropriate policies to handle capital flows, taking into account country-specific macroeconomic and financial conditions. Moreover, the IMF’s near-universal membership facilitates consistent policy advice across countries. The institutional view has increasingly been recognized among members as the macroeconomic framework to manage capital flows and can therefore help provide the basis for consistent guidance globally. Further analysis and communication of country experiences with the institutional view, adding greater granularity to the institutional view where needed, and continued engagement with relevant parties would help promote a more consistent global approach.

### Box 6. Effectiveness of CFMs

**The literature in the period following the adoption of the institutional view mainly analyzes the effectiveness of CFMs on inflows implemented by countries in the aftermath of the global financial crisis.** Some papers study individual country cases, while others take a cross-country perspective. These studies mainly focus on the impact of capital flows on the economy, and not on restricting flows themselves. They generally find that CFMs have been effective in reducing macroeconomic and financial vulnerabilities associated with capital inflows, but it is difficult to distinguish the impact of CFMs from other policies that are implemented at the same time.<sup>1</sup> Moreover, other issues identified as relevant for the institutional view—including the impact of CFMs on the volume and composition of flows, erosion of CFM effectiveness over time, effectiveness of discriminatory versus non-discriminatory measures, and spillovers from the use of CFMs—have not been specifically covered in the recent literature and remain subject to further analysis.

#### Case studies

Within the group of studies analyzing individual country experiences, the focus has been on CFMs on inflows adopted by Brazil and Korea since 2009. While the methodologies—and the objectives against which effectiveness is evaluated—vary across studies, the available evidence suggests that the measures were successful in decreasing the targeted inflows, and in mitigating macroeconomic and financial stability risks. For example, Benelli et al. (2014) find that the residency-based measures adopted by Brazil over 2009–11 curtailed incentives for carry trade, and impacted the composition of capital inflows (increasing foreign direct investment, and reducing portfolio debt flows). Baumann and Gallagher (2015) also find that Brazilian CFMs had a significant impact on the composition of inflows—but in addition, affected the level and volatility of the exchange rate, asset prices, and monetary policy autonomy. Similarly, Chamon and Garcia (2016) show that Brazilian CFMs lowered currency appreciation pressures, and succeeded in segmenting the domestic financial market from global markets. Jinjarak et al. (2013), however, do not find any significant impact of the capital controls implemented by Brazil on the flows or the exchange rate. These findings are reinforced by those of Lambert et al. (2013) and Forbes et al. (2016), who analyze fund flows data, and find that the tightening of Brazil’s residency-based tax on bond flows significantly reduced bond inflows and foreign investors’ bond portfolio allocation to the country. These studies also analyze the spillover effects of the Brazilian CFMs, and find that portfolio funds to other emerging markets increased significantly after the imposition of the measures.

In a similar vein, studies investigating the effect of Korea’s currency-based measures on inflows show that they significantly reduced domestic financial vulnerabilities. For instance, IMF (2012) and Kim (2013) document that the measures (leverage cap on banks’ foreign currency derivative positions, and levy on banks’ non-deposit foreign currency liabilities) reduced banks’ short-term foreign borrowing and improved their maturity structures, while Bruno and Shin (2014) show that these measures also lowered the volatility of cross-border bank flows to Korea.

1/ In this respect, the evidence resonates with the findings of earlier studies that analyze effectiveness of CFMs on inflows prior to 2009, and find that they were successful in tilting the composition of flows toward less risky liabilities, and in reducing financial vulnerabilities (Magud et al., 2011; Ostry et al., 2012).



**Box 6. Effectiveness of CFMs (concluded)****Cross-country evidence**

The cross-country studies evaluating the effectiveness of CFMs tend to support the findings of individual country studies. Ahmed and Zlate` (2014), for example, examine CFMs on inflows (both residency-based and currency-based measures) adopted in five countries (including Brazil and Korea) since 2009, and find that the measures reduced inflows to these countries. Similarly, Bruno et al. (2015) find that bond market and financial sector-related CFMs adopted in twelve Asia-Pacific economies significantly decreased their bond and bank inflows, respectively.

Analyzing a broader sample of 46 countries (including both advanced and emerging market economies), and focusing mainly on financial vulnerabilities, Zhang and Zoli (2016) find that, on average, CFMs dampened domestic credit growth, as well as house price growth.<sup>2</sup> These findings are echoed by Forbes et al. (2015) who using a sample of 60 countries, show that CFMs implemented over 2009–11 significantly reduced domestic financial fragilities, especially bank leverage and domestic credit growth. They, however, do not find a strong effect of the inflow-related measures on key macroeconomic variables (such as the exchange rate, capital flows, inflation, interest rate differential, and equity returns), but document that the relaxation of CFMs on outflows alleviated currency appreciation pressures. They conclude that while CFMs can be somewhat effective in achieving some specific goals, they are not suitable to accomplish their stated aims. Finally, Aizenman and Binici (2016) find that while CFMs appear to significantly reduce foreign exchange market pressures associated with capital flows in both OECD countries and emerging markets, the extent of the impact is highly dependent on the country's institutional quality.

2/ While Bruno et al. (2015) and Zhang and Zoli (2016) cover the years 2004–13 and 2000–13, respectively, most of the CFMs considered in their samples correspond to the post-2009 period.

**ISSUES FOR DISCUSSION**

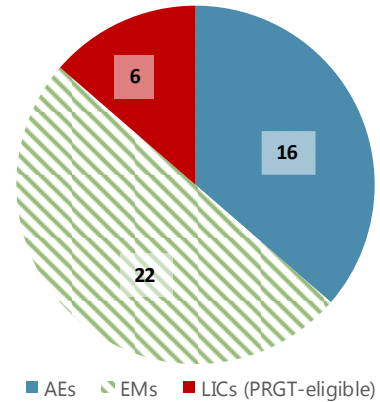
57. Do Directors agree with the main findings of this review, in particular that countries' policies have been broadly along the lines envisioned in the institutional view?
58. Do Directors view the set of emerging issues identified in the review as appropriate and meriting further clarification or elaboration?
59. Do Directors support follow-up staff work on the interaction between macroprudential and capital flow policies in addressing systemic risks arising from capital flows, as noted in the Fall 2016 IMFC Communiqué?

## Annex I. Capital Flow Survey

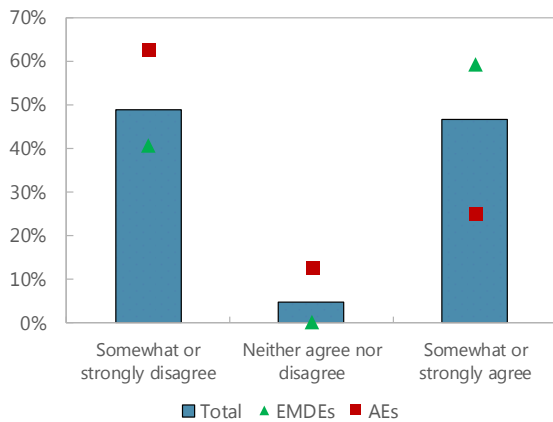
### The review was informed by a survey of the membership.

There were a total of 44 responses, of which 16 were from AEs. Authorities' concerns regarding capital flows mainly centered on their volatility and volume, and their impact on the exchange rate and financial stability. Pull and push factors were seen as important determinants of capital flows, both by AEs and EMDEs. Exchange rate flexibility was the main policy tool to manage inflows and outflows. The Fund's institutional view is well known and considered when responding to capital flows. More analysis and sharper views on the role of MPMs in managing systemic risks arising from capital flows would be useful, followed by analysis on the effectiveness of CFMs.

Responses by Country Grouping



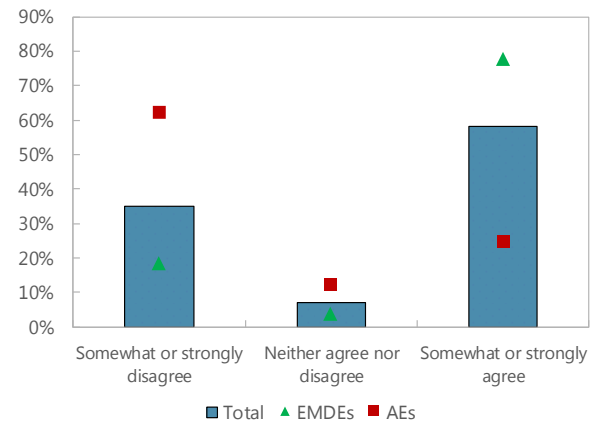
Many EMDEs, and some AEs, expressed concerns about capital inflows...



"Capital inflows were a concern."<sup>1</sup>

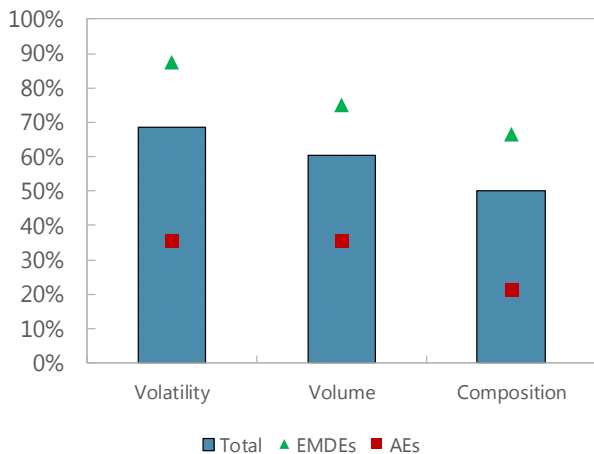
1/ All questions were framed so as to refer to circumstances and policies for the period 2013–2016. This Annex presents the results for those questions for which a sufficient number of responses was received.

... while outflows were a concern mainly for EMDEs.



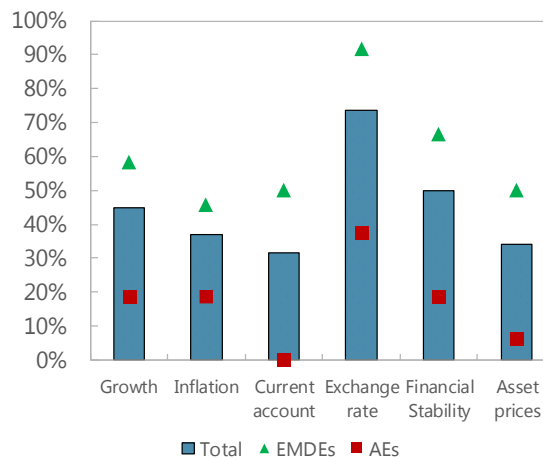
"Capital outflows were a concern."

*The volatility of flows was the main concern, followed by their volume...*



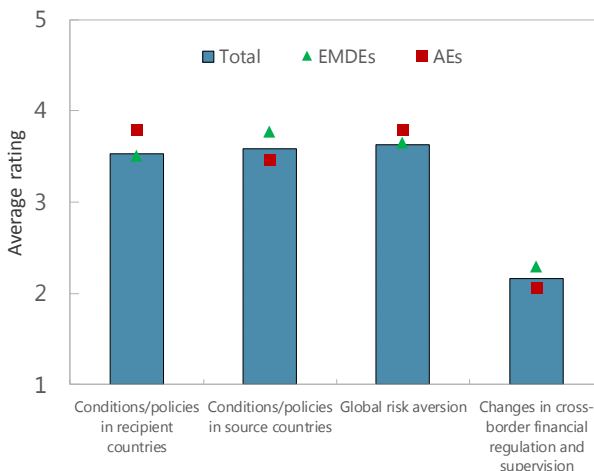
Capital flow features that were a concern.

*... mostly due to the effect of flows on exchange rates and (for EMDEs) financial stability.*



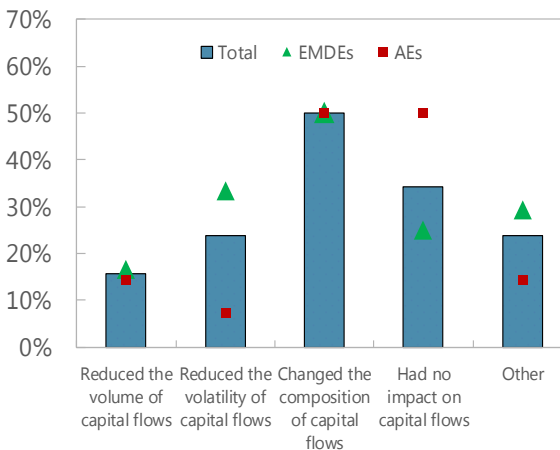
“Capital flows were a concern due to their impact on...”

*Both AEs and EMDEs saw pull and push factors as equally important determinants of capital flows ...*



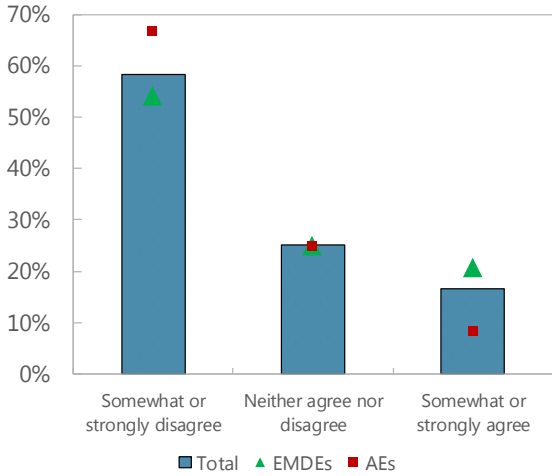
Rate capital flow determinants from 1 (not important) to 5 (very important).

*... while changes in regulation may have affected their composition.*



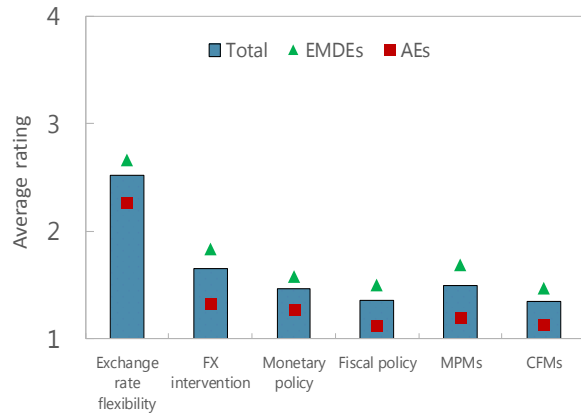
Effect of changes in cross-border financial regulation and supervision.

*Monetary policy decisions generally did not internalize potential spillovers.*



*"Spillovers taken into account for monetary policy decisions."*

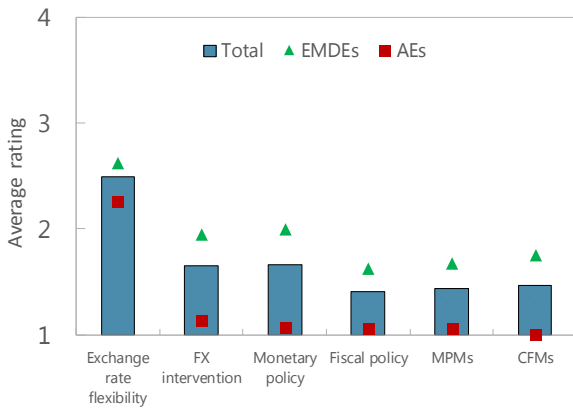
*Exchange rate flexibility was the main tool to manage inflows...*



1 (policy was not used), 2 (limited use), 3 (moderate use), 4 (extensive use).

*Rate from 1 to 4 policies to manage inflows.*

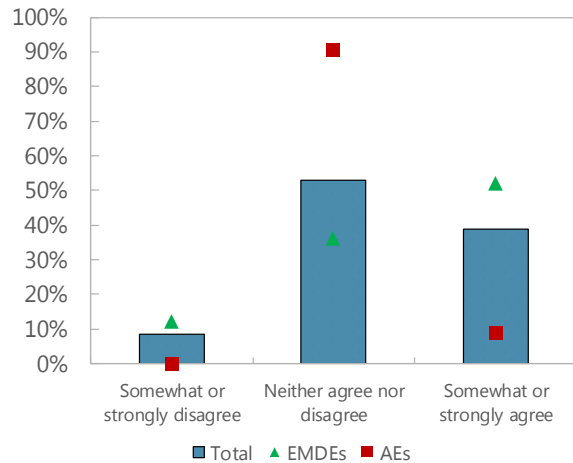
*... and outflows, while monetary policy was also an important tool to manage outflows in many EMDEs.*



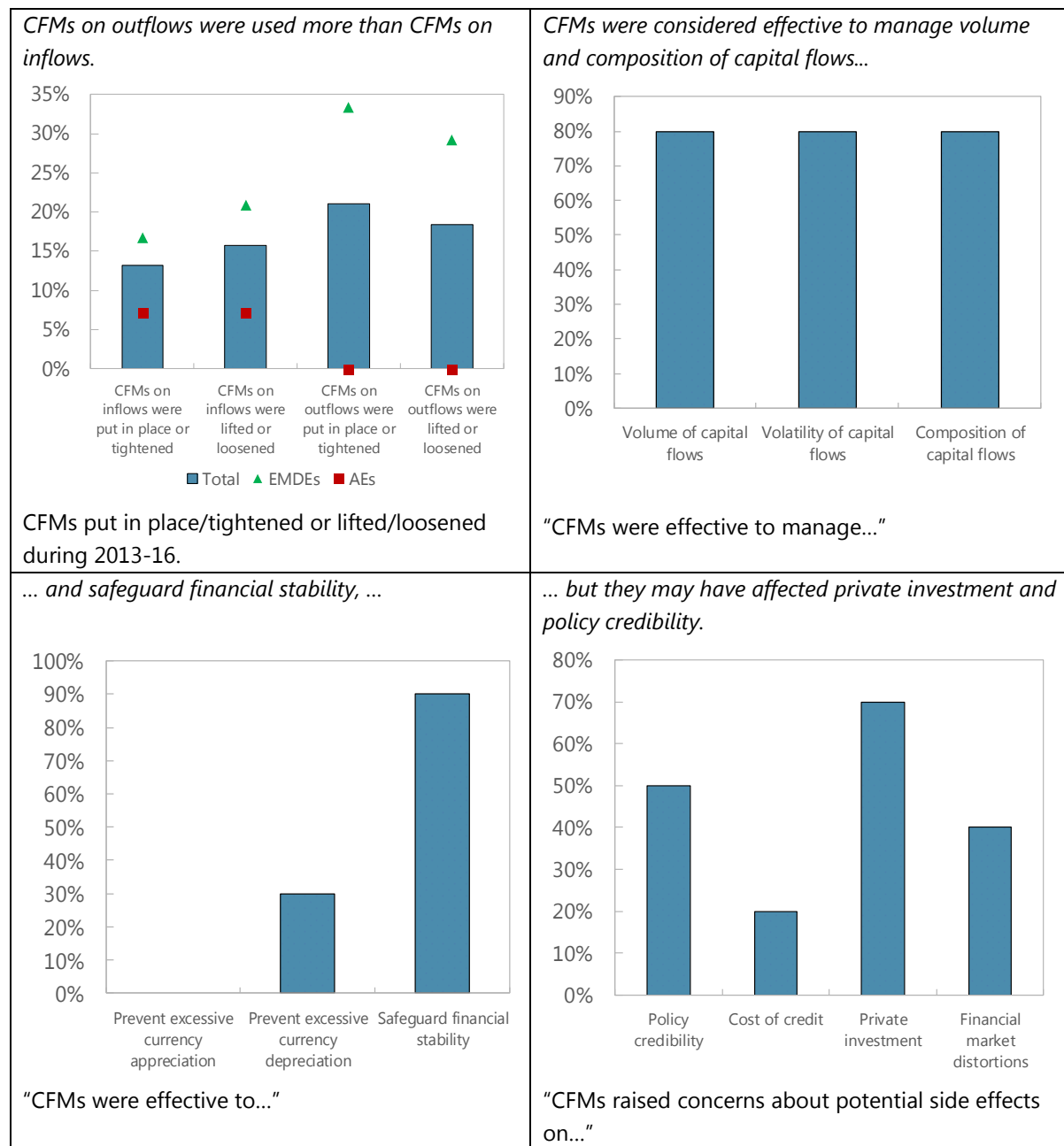
1 (policy was not used), 2 (limited use), 3 (moderate use), 4 (extensive use).

*Rate from 1 to 4 policies to manage outflows.*

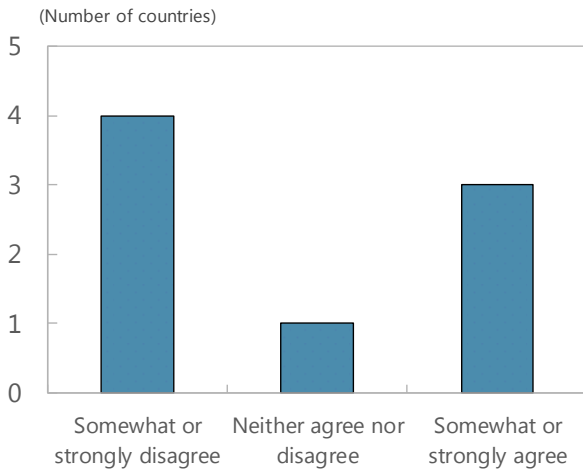
*Many EMDEs considered MPMs to be sufficient to manage systemic risks from capital flows.*



*"MPMs were sufficient to reduce systemic risks associated with capital flows."*

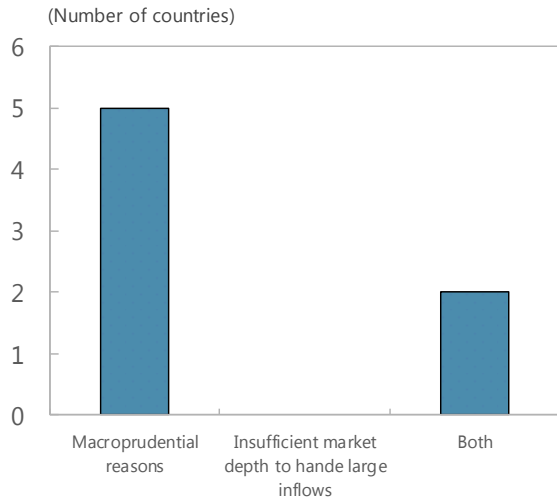


*Some countries took into account spillovers when imposing CFMs.*



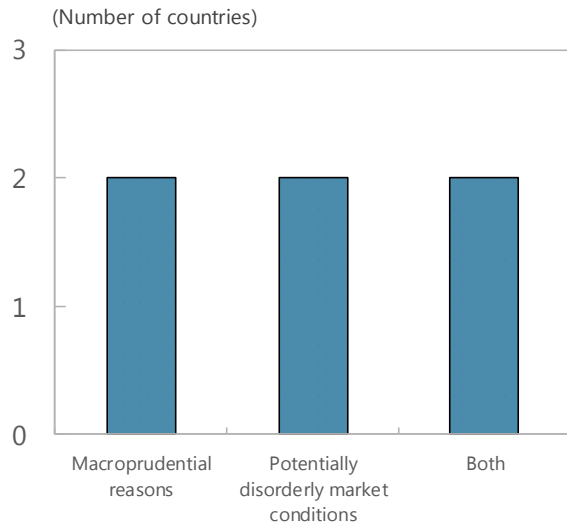
*“Spillovers taken into account when CFMs put in place/tightened.”*

*CFMs on inflows were maintained for macroprudential reasons...*



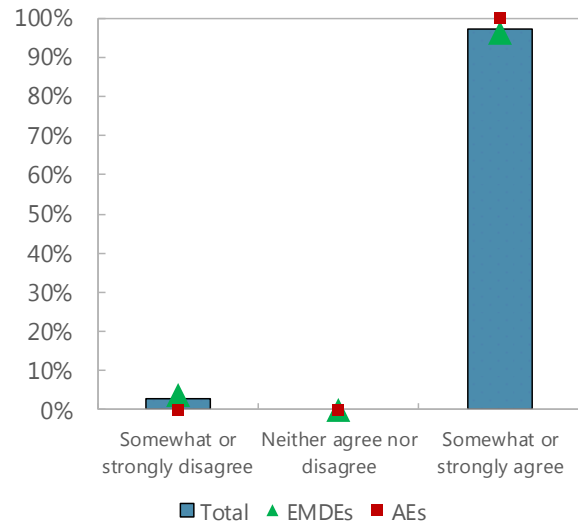
*If CFMs on inflows imposed in 2009-12 still apply, they were maintained due to...*

*...while some CFMs on outflows aimed to avoid potentially disorderly market conditions.*



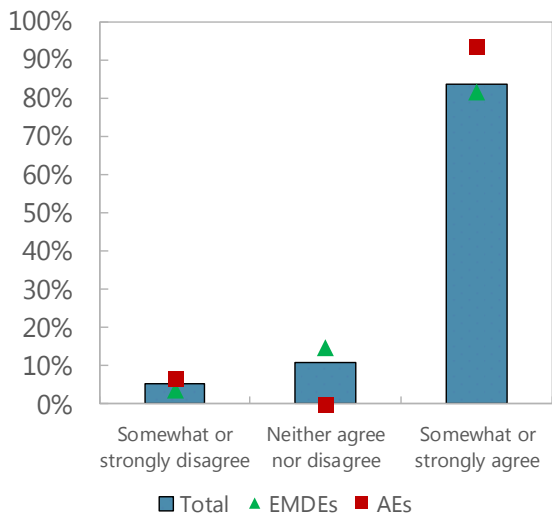
*If CFMs on outflows imposed in 2009-12 still apply, they were maintained due to...*

*Most of the membership is familiar with the institutional view...*



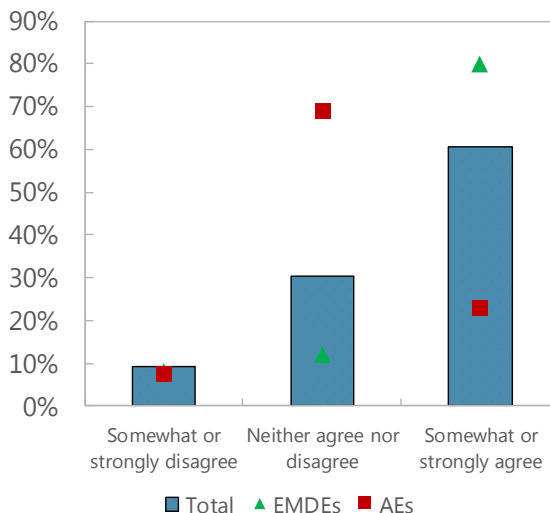
*“Authorities are familiar with the institutional view.”*

... and tend to find it clear and practical/operational, ...



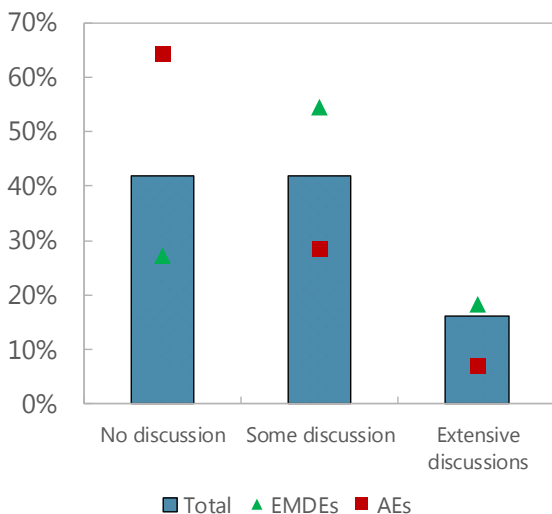
“The institutional view is clear and practical/operational.”

... with 25 percent of AEs and 80 percent of EMDEs considering it when responding to capital flows.



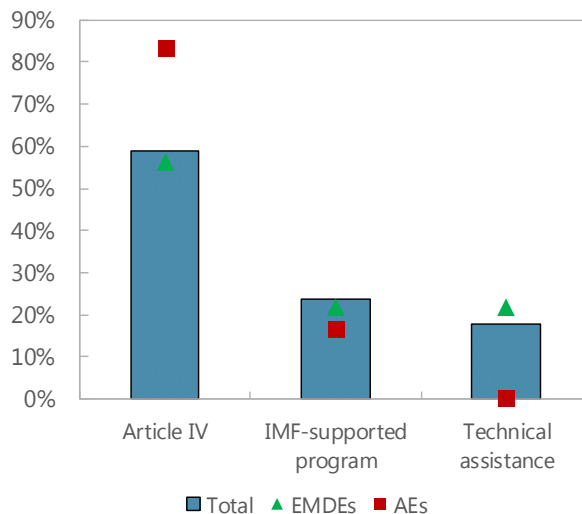
“The institutional view was considered when responding to capital flows.”

About 70 percent of EMDEs and 40 percent of AEs authorities had discussions with Fund staff on how to handle capital flows...



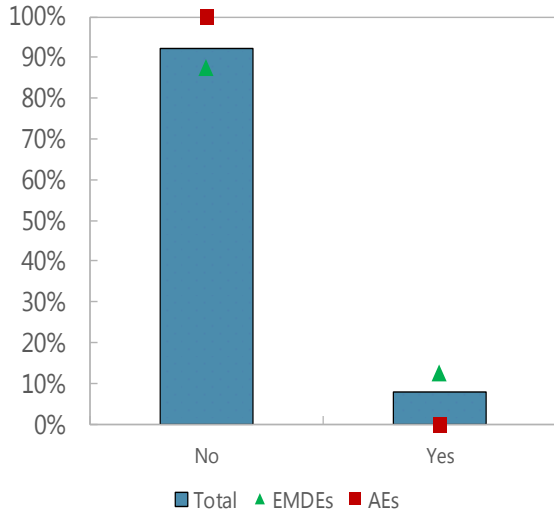
Extent of discussions with Fund staff on how to handle capital flows.

... with most discussions taking place during Article IV consultations.



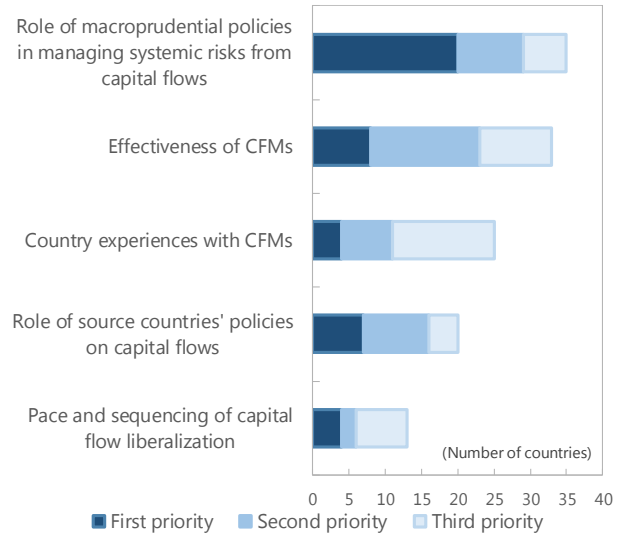
In what context did discussions with Fund staff on how to handle capital flows take place?

Only a few EMDEs received support on how to manage capital flows from other organizations.



"We have received support from other organizations on how to handle capital flows."

Members would be mostly interested in further analysis or sharper views on the role of MPMs and the effectiveness of CFMs.



Rank three areas where more analysis or sharper views would be useful.



## Annex II. Types of CFMs Used (2009–15)

	Type of measures	Transactions affected
CFMs on inflows	Tax	Inflows to fixed income securities, stocks, margin deposits, derivative contracts, and FDI Payments of pre-paid credit cards, debit cards, travelers checks, and ATM cash withdrawal using credit cards Interest earned by nonresidents on fixed income assets issued by private sector entities Interest earned by nonresidents on treasury and monetary stabilization bonds Banks' non-deposit FX-denominated liabilities Nonresident gains on financial derivatives transactions with residents Interest earned and capital gains by nonresidents on new purchases of state bonds
	Limit	Long bets based on FX loan-to-deposit ratio of banks Daily balances of banks' short-term external debt as a share of capital Banks' FX derivatives
	Holding period	Central bank bonds
	Reserve requirement	FX deposit accounts Nonresidents' new FX swap transactions and forwards Liabilities to nonresidents New foreign purchases of central bank notes
CFMs on outflows	Tax	FX purchases by banks
	Surrender/repatriation requirement	Proceeds from exports All FX proceeds
	Reserve requirement	Purchases of FX forward contracts and other derivatives that require the purchase of FX on a future date
	Limit	Cash withdrawals from banks Purchases of FX for gifts and grants FX derivative transactions (non-deliverable forwards) Net foreign asset holdings of SOEs Maturity of commercial loans to nonresidents reduced to 90 days Non-trade-related international transfers by individuals Use of FX-denominated payment cards abroad Banks' daily FX purchases for own position Banks' long open FX positions
	Ban	Loans with a maturity of less than one year to nonresidents Transfer of funds or cash abroad Transfer of dividend payments FX derivative transactions by banks Early repayment of loans to nonresidents
	Approval requirement	Purchases of foreign banknotes
	Other	Dividend, interest, and payments from abroad required to be received in FX Requirement to use available FX balances for payments and transfers abroad before purchasing FX

Source: IMF Taxonomy of CFMs.

## References

- Ahmed, S., and A. Zlate, 2014, "Capital Flows to Emerging Market Economies: A Brave New World?" *Journal of International Money and Finance*, 48, 221–248.
- Aizenman, J., and M. Binici, 2016, "Exchange Market Pressure in OECD and Emerging Economies: Domestic vs. External factors and Capital Flows in the Old and New Normal," *Journal of International Money and Finance*, 66, 65–87.
- Baumann, B., and K. Gallagher, 2015, "Navigating Capital Flows in Brazil and Chile," in *Taming Capital Flows: Capital Account Management in an Era of Globalization*, eds., J. Stiglitz, and R. Gurkaynak (Basingstoke: Palgrave Macmillan).
- Benelli, R., A. Segura-Ubiergo, and C. Walker, 2014, "Brazil's Experience in Managing Capital Inflows: The Role of Capital Flow Management Measures," in *Managing Economic Volatility in Latin America*, eds., G. Gelos, and A. Werner (Washington, DC: International Monetary Fund).
- Blanchard, O. J., 2016, "Currency Wars, Coordination, and Capital Controls," *Peterson Institute for International Economics*, Working Paper No. 16-9.
- Bruno, V., and H. Shin, 2014, "Assessing Macroprudential Policies: Case of South Korea," *The Scandinavian Journal of Economics*, 116(1), 128–157.
- Bruno, V., I. Shim, and H. Shin, 2015, "Comparative Assessment of Macroprudential Policies," BIS Working Paper 502 (Basel: Bank for International Settlements).
- Chamon, M., and M. Garcia, 2016, "Capital Controls in Brazil: Effective?" *Journal of International Money and Finance*, 61(C), 163–187.
- Eichengreen, B., and P. Gupta, 2016, "Managing Sudden Stops," World Bank, Policy Research Working Paper No. 7639.
- Forbes, K., M. Fratzscher, and R. Straub, 2015, "Capital-Flow Management Measures: What are They Good for?" *Journal of International Economics*, 96(S1), S76–S97.
- Forbes, K., M. Fratzscher, T. Kostka, and R. Straub, 2016, "Bubble Thy Neighbor: Portfolio Effects and Externalities from Capital Controls," *Journal of International Economics*, 99(C), 85–104.
- Fratzscher, M., 2012, "Capital Flows, Push Versus Pull Factors and the Global Financial Crisis," European Central Bank, Working Paper Series 1364.
- Gallagher, K. P., and Y. Tian, 2014, "Regulating Capital Flows in Emerging Markets: the IMF and the Global Financial Crisis," Global Economic Governance Initiative Working Paper 5, Boston University.

- Independent Evaluation Office, 2005, "The IMF's Approach to Capital Account Liberalization," (Washington, DC: International Monetary Fund), <http://www.imo-imo.org/ieo/files/completedevaluations/04202005report.pdf>.
- \_\_\_\_\_, 2015, "The IMF's Approach to Capital Account Liberalization. Revisiting the 2005 IEO Evaluation," (Washington, DC: International Monetary Fund), <http://www.imo-imo.org/ieo/pages/EvaluationImages232.aspx#>.
- International Monetary Fund, 2012, "The Liberalization and Management of Capital Flows—An Institutional View," (Washington, DC: International Monetary Fund), <http://www.imf.org/external/np/pp/eng/2012/111412.pdf>.
- \_\_\_\_\_, 2013a, "Guidance Note for the Liberalization and Management of Capital Flows," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2013/042513.pdf>.
- \_\_\_\_\_, 2013b, "Staff Guidance Note for Public Debt Sustainability Analysis in Market-Access Countries," (Washington, DC: International Monetary Fund), <http://www.imf.org/external/np/pp/eng/2013/050913.pdf>.
- \_\_\_\_\_, 2013c, "Key Aspects of Macroprudential Policy," (Washington, DC: International Monetary Fund), <http://www.imf.org/external/np/pp/eng/2013/061013b.pdf>.
- \_\_\_\_\_, 2014a, "Staff Guidance Note on Macroprudential Policy," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2014/110614.pdf>.
- \_\_\_\_\_, 2014b, "Macroeconomic Developments and Prospects in Low-Income Developing Countries: 2014," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2014/091814.pdf>.
- \_\_\_\_\_, 2014c, "Global Liquidity—Issues for Surveillance," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2014/031114.pdf>.
- \_\_\_\_\_, 2015a, "Managing Capital Outflows—Further Operational Considerations," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2015/120315.pdf>.
- \_\_\_\_\_, 2015b, "Macroeconomic Developments and Prospects in Low-Income Developing Countries: 2015," (Washington, DC: International Monetary Fund), <https://www.imf.org/external/np/pp/eng/2015/111915.pdf>.
- \_\_\_\_\_, 2016, "Too Slow for Too Long," World Economic Outlook, (Washington, DC: International Monetary Fund), <http://www.imf.org/external/pubs/ft/weo/2016/01/pdf/text.pdf>.

- IMF-FSB, 2016, The Financial Crisis and Information Gaps, Second Phase of the G-20 Data Gaps Initiative (DGI-2) First Progress Report, <https://www.imf.org/external/np/g20/pdf/2016/090216.pdf>.
- IMF-FSB-BIS, 2016, Elements of Effective Macroprudential Policies: Lessons from International Experience, <https://www.imf.org/external/np/g20/pdf/2016/083116.pdf>.
- Jinjarak, Y., I. Noy, and H. Zheng, 2013, “Capital Controls in Brazil—Stemming a Tide with a Signal?” *Journal of Banking and Finance*, 37(8), 2938–2952.
- Kim, C., 2013, “Macroprudential Policies: Korea’s Experiences,” Remarks made at the Rethinking Macro Policy II Conference: First Steps and Early Lessons, April 16–17, Washington, DC.
- Klein, M. W., and J. C. Shambaugh, 2015, “Rounding the Corners of the Policy Trilemma: Sources of Monetary Policy Autonomy,” *American Economic Journal: Macroeconomics*, 7(4), 33–66.
- Koepke, R., 2015, “What Drives Capital Flows to Emerging Markets? A Survey of the Empirical Literature,” Institute of International Finance.
- Lambert, F., J. Ramos-Tallada, and C. Rebillard, 2013, “Capital Controls and Spillover Effects: Evidence from Latin-American Countries,” Working Paper No. 357, Banque de France.
- Magud, N., C. Reinhart, and K. Rogoff, 2011, “Capital Controls: Myth and Reality—A Portfolio Balance Approach,” NBER Working Paper No. 16805 (Cambridge, MA: National Bureau of Economic Research).
- Nier, E., T. S. Sedik, and T. Mondino, 2014, “Gross Private Capital Flows to Emerging Markets: Can the Global Financial Cycle Be Tamed?” IMF Working Paper, WP/14/196 (Washington, DC: International Monetary Fund).
- Obstfeld, M., 2015, “Trilemmas and Tradeoffs: Living with Financial Globalization,” Central Banking, Analysis, and Economic Policies Book Series, in: C. Raddatz, D. Saravia, and J. Ventura (ed.), *Global Liquidity, Spillovers to Emerging Markets and Policy Responses*, Edition 1, Volume 20, Chapter 2, pp. 13–78, Central Bank of Chile.
- Ostry, J. D., A. Ghosh, M. Chamon, and M. S. Qureshi, 2012, “Tools for Managing Financial-Stability Risks from Capital Inflows,” *Journal of International Economics*, 88(2), 407–421.
- Rey, H., 2016, “International Channels of Transmission of Monetary Policy and the Mundellian Trilemma,” *IMF Economic Review*, 64(1), 6–35.
- Zhang, L., and E. Zoli, 2016, “Leaning Against the Wind: Macroprudential Policy in Asia,” *Journal of Asian Economics*, 42(C), 33–52.