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IMF's Work on Encouraging International Policy Cooperation

International Monetary Cooperation Since the Global Financial Crisis:
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ABBREVIATIONS

AE	advanced economy
ASEAN +3	Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Viet Nam, PRC, Japan, and Korea
BRICS	Brazil, Russia, India, China, and South Africa
CFM	capital flow management
DSGE	dynamic stochastic general equilibrium
ECB	European Central Bank
EM	emerging market
FCL	Flexible Credit Line
Fed	U.S. Federal Reserve
FSGM	flexible system of global models
GDP	gross domestic product
GFC	global financial crisis
GFM	Global Macrofinancial Model
GFSN	global financial safety net
ISD	Integrated Surveillance Decision
IV	Institutional View (on capital flows)
MAE	major advanced economy
MAP	Mutual Assessment Process
MCM	Monetary and Capital Markets Department
NAB	New Arrangements to Borrow
OECD	Organisation for Economic Co-operation and Development
PBOC	People's Bank of China
PCI	Policy Coordination Instrument
PCL	Precautionary Credit Line
PLL	Precautionary and Liquidity Line
RFA	Regional Financial Arrangement
RES	Research Department
SDR	Special Drawing Right
SNB	Swiss National Bank
SPR	Strategy, Policy, and Review Department
UMP	Unconventional Monetary Policies
VAR	vector autoregression
VIX	global risk aversion measure
WEO	*World Economic Outlook*

EXECUTIVE SUMMARY

This paper describes the IMF's efforts over the past decade to provide "the machinery for consultation and collaboration on international monetary problems," a key part of its mandate under the Articles of Agreement. From 2010 onwards, many emerging market (EM) officials noted that the capital flow volatility induced by unconventional monetary policies (UMP) posed difficult challenges for them. The IMF mounted an active response to these concerns through (i) intensified surveillance efforts; (ii) launch of a new contingent financing instrument—the Flexible Credit Line (FCL)—to provide backstop support to EMs; (iii) increased analysis of spillover effects from UMP and other policies, featured in a new product—the Spillover Report—and policy papers; and (iv) accelerated development of an Institutional View (IV) on Capital Flows to guide IMF advice on how members could deal better with capital flow volatility. Each of these initiatives is commendable and, taken together, they provide evidence of a serious effort by IMF staff to be responsive to the needs of member countries. Nevertheless, each initiative has also run up against the Fund's long-standing difficulties in getting policy choices of its member countries to reflect global considerations.

The Fund's new Integrated Surveillance Decision (ISD) allowed the multilateral impacts of a country's policies to be discussed during bilateral Article IV consultations. While an improvement over its predecessor, the ISD has not necessarily increased the IMF's influence on these issues in domestic policy decisions. The IMF also worked intensively with the G-20, particularly through the Mutual Assessment Process (MAP), to encourage countries to cooperate on monetary, fiscal and structural policies that would boost their own as well as global growth. This effort also had limited success.

Though its track record with precautionary lines of credit had not been promising, in 2009 the Fund successfully introduced the FCL. The three countries—Colombia, Mexico, and Poland—that used the instrument found it helped them adjust better to volatility from external shocks. Nevertheless, the lack of wider take-up suggests continued reluctance to approach the Fund even for precautionary borrowing, and some design limitations of the instrument itself.

Spillover Reports used an eclectic mix of approaches to understand spillovers from UMP and other policies and developments. Though a useful effort to shed light on cross-border impacts, the reports did not succeed in the admittedly difficult task of rigorous modeling of financial spillovers that would have been useful for policymakers. Nevertheless, the analysis of spillovers is regarded by many as a comparative advantage of the Fund and an endeavor in which it should stay engaged.

IMF staff developed the IV to provide a coherent framework for policy advice on dealing with volatile capital flows based on both detailed review of country experience and conceptual work. The IV has garnered praise but also generated some frustration. Some countries have wanted the IV to endorse the use of capital flow management (CFM) measures as part of a broader toolkit that could be used pre-emptively rather than as last in the hierarchy of policies. In addition, some advanced economy (AE) and EM officials feel the IV has been applied too rigidly, for example, in labeling as capital flow management measures some steps that countries view as having been taken for financial stability or social reasons.

Chapter 1—International Monetary Cooperation Since the Global Financial Crisis

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I. INTRODUCTION

1. Article I of the IMF Articles of Agreement establishes the purposes that shall guide the IMF "in all its policies and decisions." The first of these purposes is "to promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems."

2. The Global Financial Crisis (GFC) initially presented a threat to the international monetary system as international liquidity abruptly dried up, leading to fears that countries would resort to uncoordinated monetary and fiscal responses in their attempts to shield their domestic economies. However, these fears did not come to pass as key central banks, notably the U.S. Federal Reserve (the Fed), took steps to ensure international liquidity and the G-20 quickly agreed on fiscal and monetary stimulus measures. The IMF played a prominent role in championing the G-20 initiative and provided important supporting analytical work. It also provided critical financial support to smaller advanced economies (AEs) and emerging market economies (EMs).

3. However, persistent unconventional monetary policies (UMP) by central banks in the major advanced economies (MAEs) contributed to challenging conditions for many EMs as they struggled with volatile capital inflows and exchange rate appreciations. In September 2010, Brazil's Finance Minister, Guido Mantega, evoked the 1930s crisis through his claim of a currency war of competitive devaluation led by the depreciation of the U.S. dollar (Wheatley and Garnham, 2010).[1] The potential for UMP to trigger a repeat of the events of the 1930s as well as broader concerns of members about UMP spillovers led the IMF to seek ways to promote and facilitate cooperative approaches to address global economic strains.

4. This chapter describes the IMF's efforts to fulfill this part of its mandate during the decade since the onset of the GFC in 2008. It reviews adaptations to the surveillance framework, the Fund's support of the G-20's Mutual Assessment Process (MAP) to encourage greater cooperation in policy choices, and its introduction and provision of IMF liquidity backstops. The launch of the Spillover Reports and the development and use of a framework to guide Fund advice on capital flows are discussed in Chapter 2 of this paper.

5. The remainder of this chapter is organized as follows. Section II provides a historical overview of the IMF's role in international monetary cooperation to identify the long-term challenges it has faced in this role. Section III describes how the IMF adapted its surveillance activities over the past decade in an effort to guide policies in the major economies in a more cooperative direction. Section IV discusses the expansion in the IMF's financial support to help countries experiencing external pressures, including those resulting from spillovers from policies of other countries. Section V concludes.

[1] The currency wars of the 1930s inspired the IMF's original remit in 1944 to promote orderly exchange rate regimes as the cornerstone of international monetary cooperation.

II. THE IMF'S ROLE IN INTERNATIONAL MONETARY COOPERATION: A HISTORICAL OVERVIEW

6. The historical record shows that the IMF has typically played a supporting, rather than leading role in efforts to promote international monetary cooperation, particularly at times of major stress when such cooperation is most needed (Schenk, 2017). Up until the GFC, the MAEs took the lead in dealing with international currency strains among themselves, either directly, in international institutions, or through informal groupings, with the IMF serving as the lead agency to provide emergency financing as needed to smaller AEs and EMs.

7. In the 1960s, the major economies used various fora, including the IMF, to grapple with strains arising in the international monetary system. Ways to deal with the "dollar problem" were discussed in the OECD's Working Party 3, consisting mainly of the deputies of finance ministers from the Group of Ten (G-10) countries.[2] G-10 central banks also created a network of multilateral lines of credit and swaps among themselves, facilitated through the Bank for International Settlements. In addition, the G-10 created a mechanism in the IMF—the General Arrangements to Borrow—to supplement existing IMF resources in the event that one or more of their economies faced a need for reserve assets. The many proposals for lasting international monetary reform discussed in these fora led to creation in 1969 of Special Drawing Rights (SDRs) in the IMF to serve as a supplement reserve asset for all members, allocated in proportion to their quota in the IMF. However, the SDR did not emerge as a functional reserve unit nor did it play a significant role in the process of building reserves (James, 1996; Schenk, 2010).

8. In the early 1970s, the Bretton Woods system of fixed exchange rates that was the foundation of the IMF's original mandate was abruptly abandoned in the face of acute currency pressures. In 1973, the U.S. Treasury Secretary invited his counterparts from France, Germany, and the United Kingdom to meet in the White House library, creating the "Library Group." This group evolved into the G-5 (including Japan) and, by 1976, the G-7 (with the inclusion of Italy and Canada). These informal gatherings included meetings of finance ministers and central bank governors, with annual meetings of the G-7 leaders beginning in 1975. The IMF was often a participant, providing advice in the discussions, but the G-7 emerged as the main group managing the international monetary system.

9. Over the course of the 1970s, the bi-monthly central bank governors meeting hosted by the Bank for International Settlements became the main forum for high-level monetary policy discussions among countries (Schenk, 2017). The rising importance of financial flows in the global economy, which was not anticipated in the original Articles of Agreement of the IMF, meant that the Fund's mandate to promote an orderly exchange rate system and open current account transactions was less central to the challenge to global financial stability, which now depended more on developments in international banking markets. In 1977, the IMF membership clarified the parameters for surveillance over members' exchange rate policies in the new mixed

[2] The G-10 comprised Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States; Switzerland joined in 1964.

environment of flexible and floating exchange rate regimes through a Surveillance Decision. However, while this innovation allowed the IMF to initiate "discussions" with a member, the obligation was limited to consulting with the Fund, providing data and avoiding currency manipulation. The IMF's role thus remained primarily advisory.

10. In the 1980s, the G-7 played the leading role in international monetary cooperation, particularly on efforts to coordinate economic policies and to stabilize exchange rates among the major international currencies. The Plaza (1985) and Louvre (1987) Accords sought to coordinate the management of the exchange rate of the dollar, deutsche mark, and yen through a mixture of coordinated foreign exchange rate intervention and monetary and fiscal policy. The IMF played an advisory role in these discussions, for instance developing a process for examining "objective indicators" of external imbalance and offering a common set of data for the G-7's multilateral surveillance discussions (Boughton, 2001; Schenk 2017). During this period, the IMF also played an important role as the lead agency to deal with the Latin American debt crisis that broke out in 1982.

11. At the end of the 1990s, after a series of financial crises in EMs, a new global group—the G-20—was created, in recognition of the increased economic and financial importance of EMs and the consequent need to involve them in issues of international policy cooperation. The IMF has played an increased role in supporting the G-20 by providing economic and policy analysis (along with World Bank, OECD, and Financial Stability Board)—the IMF Managing Director and World Bank President also participate in G-20 meetings ex officio, as do the International Monetary and Financial Committee and Development Committee chairs.

12. In the 2000s, ahead of the crisis, there was growing concern about global current account imbalances and exchange rate misalignment and the failure of the IMF to exert pressure to achieve the needed adjustment, particularly in exchange rates. Undersecretary Timothy Adams of the U.S. Treasury was concerned that "the perception that the IMF is asleep at the wheel on its most fundamental responsibility—exchange rate surveillance—is very unhealthy for the institution and the international monetary system" (Adams, 2005). The IMF overhauled its approach to bilateral surveillance (see next section) and embarked on a "multilateral consultation" with five large countries in 2006–07, aiming to communicate the benefits of collectively addressing the issue of global imbalances and thereby promoting concrete policy actions by governments. However, the consultation ended with little to show for it, and the exercise was not repeated (Blustein, 2013).

13. In short, since its founding the IMF has faced persistent challenges—for some recurring reasons—in placing itself at the center of efforts to promote international monetary cooperation:

- Smaller groups involving the largest economies have taken the lead in policy cooperation, preferring to retain close control of politically sensitive discussions. The IMF has been brought in as needed to provide analytical input and fulfill specific operational needs, particularly for crisis financing.

- Countries often prefer central bank swap lines or self-insurance through reserve buildup as a first recourse before considering approaching the IMF. Such swaps allow for massive and speedy support and often are not accompanied by the conditionality attached to IMF resources.

- Given that the IMF's surveillance role is largely advisory, the IMF has limited leverage to persuade countries to take account of multilateral effects of their policies during Article IV consultations.

- There is limited scope for sanction/enforcement for economies with persistent current account surpluses, leading to complaints of lack of evenhandedness of treatment.

- The IMF's mandate over capital account transactions, which have taken on rising importance, is limited.

These historic challenges have persisted and continue to affect the IMF's initiatives over the past decade to promote policy cooperation, as discussed in the next section.

III. IMF Role in International Monetary Cooperation: Surveillance Since the GFC

14. This section describes the IMF's efforts to foster international monetary cooperation over the past decade through adaptations to its surveillance activities. The IMF adopted a new Surveillance Decision to strengthen its mandate for bilateral and multilateral surveillance over member countries' policies, including the international spillovers of their policy choices. It also provided considerable support to the G-20, including support to the G-20's MAP, which was intended to encourage policy choices by these countries conducive to strong and balanced global growth.

Integrated Surveillance Decision

15. In the context of increasing global imbalances in 2007, the IMF updated its 30-year old Surveillance Decision, to provide firmer exchange rate surveillance, culminating with the "Decision on Bilateral Surveillance over Members' Policies" (2007 Decision). Among other changes, the 2007 Decision tried to set clearer guidance on how to assess exchange rate misalignment. This proved controversial, however, as member countries objected to the identification and labelling of exchange rate regimes, leading to delays in some Article IV consultations, particularly for China.

16. Recognizing that the 2007 Decision was not functioning well, the IMF moved to a broader approach to surveillance. Specifically, after the Triennial Surveillance Review in October 2011, the 2012 Integrated Surveillance Decision (ISD) required that the Fund to fulfill its multilateral mandate by assessing spillovers from any policies pursued by a member country, including domestic policies, that may significantly affect the operation of the international monetary system, in particular through their impact on global economic and financial stability.

Such spillovers were to be discussed during the Article IV consultation with the country. The hope was that recognition of spillovers arising from their domestic policy stance would encourage the country to consider alternatives, though as in the past there was no obligation for them to change policies (IMF, 2016).

17. Under the ISD, the IMF assessment of external stability also shifted from assessment of exchange rate levels to an overall assessment of the external position based on analysis of the current account, capital flows and policy measures, exchange rates, reserves and foreign exchange intervention, and external balance sheets. In 2012, the IMF began to produce a multilaterally consistent "External Sector Report," integrating analysis from bilateral and multilateral surveillance to track the evolution of global external balances, assess their drivers, and discuss the external assessments of systemically important economies (28 countries and the euro area). This report discusses policy measures that could help narrow the gap between actual external balances and the "norm" identified by IMF staff. The IMF has continued to adapt its work in this area, for instance by refining the model underlying assessments (the External Balance Assessment or EBA methodology) and seeking to enhance its engagement with member countries about these assessments over time.

G-20 Mutual Assessment Process

18. In the wake of the GFC, the IMF provided considerable support to the G-20 in its efforts to promote policy coherence among its member countries. With the addition of the Leaders' track to the G-20 in 2009, this group had assumed the role of the lead global institution for cooperation on a broad range of policy issues, although the G-7 continued to function as a key forum for consultation on exchange rates and other sensitive matters of particular interest to this smaller group (IEO, 2018).[3] By design, the G-20 brought emerging economies squarely into policy discussions. The coherence and influence of the G-20 was particularly strong at the outset of the crisis when all countries were facing a synchronized global slowdown.

19. At their 2009 Pittsburgh summit, the G-20 Leaders called on the Fund to assist in assessing the extent to which G-20 policy commitments were consistent with the achievement of strong and sustainable growth—the so-called MAP. The range of policies covered under the

[3] With the rise of the G-20, the G-7 generally played a diminished role in international economic issues after the GFC, but with one important and relevant exception: cooperation on the monetary and exchange rate policies of G-7 members. In particular, there was a clear understanding among the G-7 finance ministries and central banks that UMPs were a legitimate response by authorities to unprecedented circumstances and would be mutually recognized and supported provided that it was clear that policies were directed at domestic objectives and using domestic instruments. At the same time, the G-7 committed to allowing their currencies to float freely, refraining from even verbal guidance, and to using foreign exchange intervention only when needed to address disorderly market conditions. For example, the G-7 agreed that coordinated foreign exchange intervention was justified to address disorderly market conditions that were driving up the yen after the 2011 tsunami disaster in Japan. This approach was coordinated through regular G-7 meetings and teleconference calls, in which the IMF participated but was not a central player or provider of technical support.

MAP was broad: it included monetary policies aimed at price stability and economic recovery; fiscal policies, which were turning from the initial fiscal stimulus to consolidations; and structural policies, as concerns rose that the crisis was having long-lasting effects on growth. Each G-20 member was asked to provide details of its monetary, fiscal, and structural policies and macroeconomic projections, which were then subjected to a peer review, refined, and used to develop policy recommendations for the G-20 leaders. The Fund was tasked with examining the extent to which individual country policies were consistent with the G-20's growth and other macroeconomic objectives, and to provide recommendations for how policies would need to be adapted or reinforced to achieve them. At its launch, MAP was heralded as an important improvement in international policy cooperation, with the IMF's Chief Economist, Olivier Blanchard, known to be a skeptic of previous such efforts, writing that "a problem shared is a problem halved" (Blanchard, 2016).

20. The IMF's first report under the MAP, prepared for the June 2010 Toronto Summit, assessed the implications of country polices and presented alternatives that could help to achieve "stronger, more sustainable and balanced growth" and mitigate downside risks (IMF, 2010b). The report recommended that the AEs pursue "major" fiscal consolidations, sufficient to bring debt/GDP levels down to pre-crisis levels over the medium term, improve the composition of tax and spending policies to make them more "growth friendly," and to adopt structural reforms to boost GDP. The Fund's recommended policies also addressed policy mix issues and spillovers. The preferred policy package was that monetary policy be loosened in AE further to help offset the procyclical drag from fiscal consolidation. Although AE exchange rates were expected to depreciate significantly under the package, the Fund argued that EMs and the rest of the world would benefit overall from the effect of stronger AE growth and their own "complementary domestic policy action" (IMF, 2010b).

21. Coverage of UMP and spillovers was light in the two subsequent IMF reports for the MAP but received greater attention in the 2012 report, which called for further monetary easing—conventional and unconventional—in the euro area, Japan, and the United Kingdom given the weaker growth outlook and fiscal consolidations underway. The report noted that while easier monetary policies among the AE would lead to currency appreciations "elsewhere," the effects would be broadly neutral owing to the "stronger import demand from countries where monetary stimulus is introduced" (IMF, 2012).

22. References to monetary policies were not prominent in the 2013 report, and by the time of the 2015 report attention had turned to the potential spillovers from the eventual U.S. withdrawal from UMP. After the "taper tantrum" of 2013, the 2015 report warned that "higher U.S. policy rates could result in an abrupt rebalancing of international portfolios, high market volatility and an increase of the compressed term premium, which may have global financial stability consequences" (IMF, 2015). Therefore, monetary policy normalization should be gradual and macroprudential policies should be the first line of defense to address financial stability concerns.

23. After 2015, the MAP process lost traction as the earlier coherence at the onset of the crisis dissipated as countries faced divergent challenges. The IMF reports to the G-20 in 2017 and 2018, rather than drawing from submissions from individual G-20 members, were largely rooted in the IMF's own analysis. The 2017 report endorsed the current and projected stance of policies in the euro area and Japan, welcomed a "data dependent" normalization of U.S. monetary policy, and endorsed the projected neutral or contractionary stances in "most emerging countries" (IMF, 2017a). In the 2018 report, existing and projected monetary policy stances in the AEs were judged broadly appropriate.

Assessment

24. The Fund deserves credit for its efforts to foster international monetary cooperation over the past decade. Interviews with authorities suggest that the ISD is viewed as a major improvement over its predecessor and the broader discussion of external stability consequences of domestic policies is a step in the right direction. Nevertheless, the ISD has had limited success in making multilateral concerns an effective part of the bilateral policy discussion with member countries. Though IMF staff brought up the issue of spillovers from UMP on other countries, as the ISD required them to do, there appeared to be little traction on policy adjustments.

25. As assessed in the case studies of the MAEs for this evaluation (Ball, 2019), the IMF had little influence over the monetary policies of the major central banks undertaking UMP and did not change their views that the spillovers of their policies were, on net, positive for EMs. Fed staff, for instance, noted that they had done ample research on the effects of U.S. policies on other economies and how those effects in turn affect the U.S. economic outlook itself. Based on this evidence, prominent policymakers remained skeptical about the adverse effects of spillovers from U.S. UMP (Bernanke, 2015; Powell, 2018). Some European Central Bank (ECB) board members likewise concluded that the ECB's monetary policy actions were clearly positive for the global economy (Cœuré, 2017). Since the Fund's own analysis, in the Spillover Reports and other work, tended to reach similar conclusions, it was difficult for staff to counter the resistance among AE officials to devoting considerable attention during Article IV consultations to the spillovers from their policies.

26. Other than through the bilateral surveillance process, the IMF's contribution to shaping thinking about the broader mix of policies—fiscal and structural as well as monetary, which could have reduced the burden on monetary policy to support growth—was largely channeled through the G-20. The IMF's analytical and policy work in support of the coordinated fiscal stimulus in 2008–09 at the start of the crisis received praise from authorities and outside observers as being influential at the time, both at the conceptual level and in following up with individual countries. After 2010, the IMF provided considerable support for the G-20's MAP. This work was very intensive as up to 10 reports were commissioned in the first year, including country reports and evaluation of policy responses (Faruqee and Srinivasan, 2012) and it included working across a range of institutions such as World Bank, OECD, and International Labour Organization. The technical quality of the Fund's work was praised by G-20 authorities at the time and reiterated in

interviews conducted for this evaluation. However, while the quality of the reports was praised there was little follow-through on staff recommendations.

27. Some EM policymakers were disappointed that the opportunity provided by the IMF's reports for the MAP to consider carefully the policy mix that would best serve the global economy had not led to much change in the Fund's position. As described earlier, the IMF's reports for the G-20 MAP between 2010 and 2017 generally expressed support of UMP by the AEs, and indeed during 2010–12 pressed for further monetary stimulus to counter the impact of fiscal consolidation. The Fund considered such policies as beneficial not only to these countries but also to EMs and to the global economy, although their potential to cause unhelpful capital inflows to the EMs and financial stability risks was often acknowledged. Even when such spillover risks were mentioned, however, the IMF did not suggest the need for changes in AE policies or in the policy mix, but rather called on EMs to allow their exchange rates to appreciate, to tighten fiscal policies, to strengthen macroprudential oversight and regulation, and (if needed) adopt capital flow measures. The Fund's reports for the MAP regarded the spillovers to EMs as manageable and greater exchange rate flexibility as the major policy instrument with which to address them. Fund staff contend that their positions were determined by their analytic work and reading of the evidence, but at least some EM policymakers interviewed for this evaluation expressed concerns that staff's frameworks and modes of analysis remain quite "AE-centric." As noted in Klein (2019), staff's attempts to introduce the types of financial channels that concerned many EMs into their spillover work has not thus far been very successful.

28. Overall, while the surveillance apparatus has evolved since 1977 and the IMF has taken steps to enhance attention to cross-border systemic issues, the process remains predominantly bilateral, and IMF traction over the policies of major economies engaged in UMP appears limited. Nevertheless, while the mechanisms for influence are not necessarily direct, the IMF provides important expertise and analysis and thus helps represent the interests of the broader IMF membership.

IV. IMF'S ROLE IN THE GLOBAL FINANCIAL SAFETY NET

29. The so-called Global Financial Safety Net (GFSN) is a patchwork of bilateral, regional, and multilateral liquidity arrangements to help countries experiencing sudden loss of access to normal sources of external financing. The IMF has traditionally been the central contributor to the GFSN, mainly by providing financing based on ex post conditionality.[4] Since 1999, the IMF has also offered contingency financing without ex post conditionality for countries qualifying

[4] In case of a balance of payments need, IMF member countries have access to resources equivalent to their reserve asset contribution to the IMF (the "reserve position") without conditions. In addition, the IMF has provided limited financing under emergency assistance for urgent balance of payments needs from a broad range of sources, including commodity price shocks, natural disasters, and post-conflict situations.

ex ante, although these instruments have been much less used, even after the introduction of new instruments following the GFC (IMF, 2017b).

30. Over the past decade, the IMF increased its lending capacity significantly. In 2008, IMF resources had reached a low point relative to world GDP, capital flows, trade and similar metrics (Brau and Stedman, 2014) and it quickly became apparent that they were not adequate to support member countries. In order to expand its lending capacity quickly and significantly in response to the GFC, the IMF adopted a multi-track strategy of arranging increased borrowing commitments from member countries and seeking a large increase in its quota resources. In this way, the IMF quadrupled its lending capacity, although it initially had to rely primarily on borrowing from member countries (via the enlarged New Arrangements to Borrow (NAB) as well as bilateral arrangements)[5] until the 14th Quota Increase agreed in 2010, came into effect in 2016.

31. The IMF also boosted international liquidity by increasing the supply of SDRs, responding to a call from the G-20. In August 2009, the IMF approved a general allocation of SDR plus a special issue (to countries that had joined after 1981) that resulted in a tenfold increase in total SDR holdings world-wide. The IMF Managing Director described the allocation as "a prime example of a cooperative monetary response to the global financial crisis" (IMF, 2009). However, the SDR remains a very small share (2.6 percent) of global reserves and continues to play a very limited role.[6]

32. Even as the IMF expanded its own resources, the rapid growth of bilateral central bank swap lines and regional financial arrangements (RFAs) meant that these other arrangements together exceeded the Fund's resources beginning in 2008 (Weder di Mauro and Zettelmeyer, 2017). In response to the GFC, the Fed extended its bilateral swap lines to other central banks in the AEs and temporarily introduced swap lines for a limited number of EMs judged to have secure and systemic financial systems. Swap facilities are also offered by the People's Bank of China (PBOC), the ECB, the Swiss National Bank (SNB), and others. The ECB and SNB swaps are similar to the Fed swaps, aimed at providing Euro/CHF liquidity in Central and Eastern European countries, primarily to Hungary, Poland, and Latvia. PBOC swaps have been extended to 32 countries since 2009 focused primarily on RMB trade settlement, although the terms of the agreements also mention providing liquidity support to financial markets. Similar trade facilitating swaps exist between other central banks.

[5] The NAB was introduced in 1997 with a modest total of SDR 34 billion. Following a call from the G-20 in September 2009 to triple the resources available to the IMF, NAB resources were increased to SDR 367 billion. In addition, in 2012 the IMF negotiated SDR 305 billion of bilateral borrowing agreements from 38 member countries, including many EMs.

[6] Under the French Presidency, the G-20 promoted a series of initiatives including a commitment to widen the valuation of the SDR (University of Toronto G-20 Information Centre, 2011), and the renminbi was included in 2016.

33. At the same time, RFAs gained in importance, particularly the introduction of the European Stability Mechanism for the euro area (ECB, 2011) and the strengthening of the Chiang Mai Initiative in East Asia (Park, 2017).[7] Nonetheless, bilateral and regional elements cannot substitute for the IMF's multilateral component of the GFSN for most of its members. First, most IMF members are not offered bilateral swap arrangements by AE central banks.[8] Second, RFAs have limited resources, and participants in such arrangements are aware that these resources would be stretched in the event of a shock that strikes all members at once. Further, some RFA resources are linked to access to IMF financing. Issues about the linkages between RFA financing and IMF financing surfaced in the context of the euro area debt crisis support for Greece, Ireland, and Portugal (IEO, 2016), leading to adaptation of a new framework for such partnerships (IMF, 2017c).

34. Over the years, the IMF has experimented with a range of new liquidity instruments that would allow members to qualify for access to Fund resources on a precautionary basis without ex post conditionality. The proposal for a Short-Term Financing Facility was considered in 1994 but not in the end adopted because the Board was concerned about the lack of conditionality, the challenge in defining eligibility, and overlap with other facilities. The Contingent Credit Line, introduced in 1999, was another attempt at developing a prequalification borrowing facility after the emerging markets financial crises in 1998 showed that contagion effects could hit otherwise sound economies. But when no members used the instrument, it lapsed in 2003 (IMF, 2003). The IMF's track record with precautionary lines of credit before the GFC was therefore not promising.

35. As the GFC unfolded, the IMF was already in the process of considering new adaptations to its lending framework and moved quickly after the crisis hit to introduce a new precautionary lending mechanism. The Short-Term Liquidity Facility was announced in October 2008 at the same time as the Fed swap lines were extended to four EMs. This facility was available to "countries with track records of sound policies, access to capital markets and sustainable debt burdens;" and access was not subject to ex post conditionality. This effort to overcome stigma and make resources available faster and more easily for pre-qualifying members did not attract subscribers and it was discontinued when the FCL was established in March 2009. The FCL is a similar instrument to provide financing to countries that meet ex ante qualification criteria but with some technical adjustments to make it more attractive. The amount of credit is not capped, and the terms for repayment are the same as for traditional Stand-By Arrangements. The expectation was that the automatic nature of drawing on the facility, the lack of ex post conditionality and the seal of approval for the member's economic policies ex ante would make this an attractive facility for a range of countries. To date, however, only three countries have

[7] The Chiang Mai Initiative Multilateralization is a multilateral currency swap arrangement between ASEAN+3 members, which came into effect in 2010 as a successor to a network of bilateral swap and repurchase facilities among members which had been in place since 2000.

[8] During the GFC, the Fed offered bilateral swap lines to 4 systemic EMs as well as 10 AEs. Swap lines remain in place with 5 AEs.

taken up the FCL: Colombia, Mexico, and Poland. By February 2019, only Colombia (SDR 7.8 billion) and Mexico (SDR 62.4 billion) still had FCL arrangements in place, as Poland exited from its arrangement in November 2017.

36. The Fund introduced a second precautionary instrument in 2010, the Precautionary Credit Line (PCL), which was modified and renamed the Precautionary and Liquidity Line (PLL) in 2011. Similar to the FCL, the PLL instrument also requires members to meet criteria for sound economic fundamentals; arrangements can be for a shorter duration (either six months or one-to-two years). It includes focused ex post conditionality aimed at addressing remaining moderate vulnerabilities identified during qualification. Morocco is the only country with a PLL arrangement currently in place (SDR 2.15 billion in March 2019). The Former Yugoslav Republic of Macedonia also had a PLL arrangement (initially PCL) but did not seek a new arrangement when it expired in 2013. In a review of the GFSN in 2017 the Executive Board came close to abandoning the PLL because it was so little used and could lead to tiering vis-à-vis the FCL, but in the end it was retained (IMF, 2017b).

37. During a 2017 review of the FCL, the IMF staff presented proposals for a Short-Term Liquidity Swap Line to provide members with strong fundamentals access to revolving lines of credit. However, the Executive Board rejected this initiative. In the view of some Executive Directors, the new proposal was "akin to a swap line offered by central banks, which risks departing from the IMF's traditional role under its mandate" (IMF, 2017b). It was also unclear whether there would be a demand to use the instrument on the access terms that were being considered. The debate in the Executive Board highlighted disagreement about how to address stigma and moral hazard concerns in determining access to the IMF's financial instruments. Reducing stigma by making resources easier to draw could at the same time reduce the incentive to ensure sound economic fundamentals and thus increase moral hazard (IMF, 2017b). In short, the IMF's effort to overcome the tension between stigma and moral hazard by introducing prequalification requirements that encouraged members to establish and maintain strong fundamentals and policy frameworks has so far not proved successful in attracting more members to these instruments.

38. One outcome of the 2017 review was a new instrument under the banner of technical assistance that would allow countries to get a "seal of approval" from the IMF for their economic policies. The Policy Coordination Instrument or PCI (July 2017) is designed to make it easier to raise capital or funds from RFAs and will streamline the process of obtaining access to IMF resources if needed in a time of crisis. Essentially, a member would agree to a program that meets the same standard as those required under an IMF loan in the General Resources Account. The PCI has thus far been used by Seychelles and Serbia.

39. In March 2018, the Executive Board considered proposals to increase the role of the SDR in the international monetary system (IMF, 2018a). IMF staff reviewed the ways that official use of the SDR could be enhanced and supplemented, for instance by encouraging market-traded SDR products and by making more use of the SDR as a unit of account. However, the Board agreed

with the staff's view that there was little immediate advantage from these enhancements. In the discussion of the paper, "most Directors were uncertain or unconvinced that there is a role for the SDR in addressing the weaknesses of the IMS" (IMF, 2018b).

Assessment

40. The IMF's efforts to expand its available resources dramatically and to design new instruments represented important leadership in the wake of the GFC. The former allowed the IMF to respond to member countries' financing needs, although delays in implementation of the quota increase left the IMF dependent on borrowed rather than quota resources for an extended period, with governance implications (Brau and Stedman, 2014). The launch of the FCL was important in overcoming the disappointing record of previous failed attempts in this direction. The three participants in the FCL benefited from a reduction in sovereign debt spreads and felt that the FCL enhanced their ability to secure continued market access in 2009/10, though it is uncertain whether this was part of generalized trend or due to the FCL itself (IMF, 2010a). Poland was able to exit the FCL without a deleterious effect on the exchange rate or on market conditions, which may alleviate one of the perceived risks of the FCL, i.e., exiting it may destabilize market confidence.

41. As discussed in the Mexico case study for this evaluation (Borensztein, 2019), the Mexican authorities remain very satisfied with their FCL arrangement and regard it as having been a very useful means of shielding Mexico from some effects of the GFC and subsequent market volatility over the past decade. Similarly, the Polish and Colombian authorities considered their FCL arrangements a valuable additional insurance against external shocks. In the latter case, the authorities saw the FCL arrangement as reinforcing market confidence and providing breathing space to navigate shocks as the authorities implemented their reform agenda (IMF, 2018c).

42. That said, long-term use of the FCL instrument is an issue that has raised concerns among some Board members because it ties up IMF resources contrary to the revolving character of access to the Fund's financial support. Moreover, the lack of more widespread take-up of the FCL suggests that there is still some stigma attached to seeking an IMF financing arrangement, even one that is precautionary with no ex post conditionality attached. Indonesian officials, for example, told the IEO that they considered an FCL arrangement to be useful on technical grounds but decided against it for political reasons. There are also lingering concerns about its design. Former Chilean officials indicated that they had decided not to seek an FCL arrangement out of concern that if events took an adverse turn they could lose access at just the moment it was needed. Hence, they preferred to rely on self-insurance.

43. It is also worth highlighting that FCL arrangements, even when used by a small number of countries, can absorb a substantial proportion of available Fund financing capacity, raising questions about its scalability. At end-December 2018, FCL arrangements accounted for half of outstanding financing commitments, although only two such arrangements were then in place and no country has ever drawn on an FCL arrangement. This resource constraint is a fundamental

challenge for the Fund to design and introduce new instruments to meet the changing needs of its members (Figure 1).

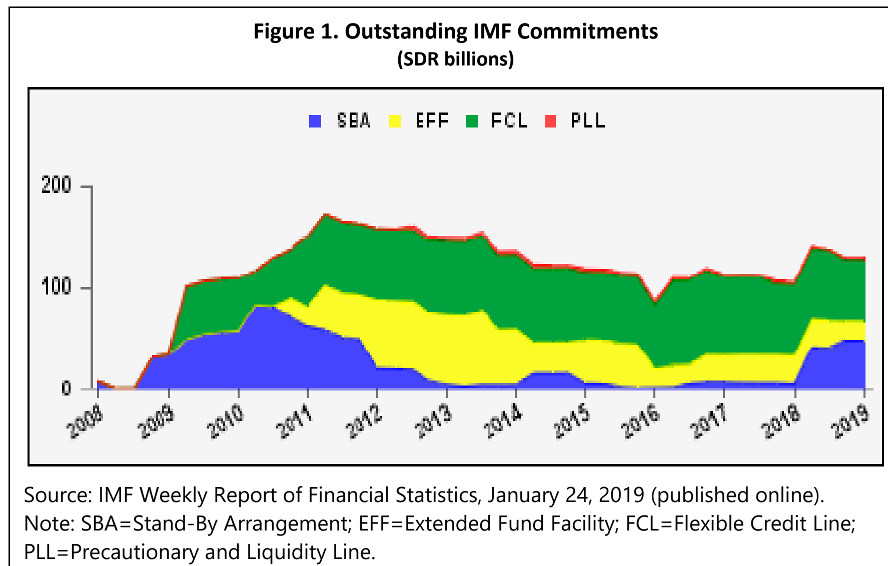

Figure 1. Outstanding IMF Commitments
(SDR billions)

Source: IMF Weekly Report of Financial Statistics, January 24, 2019 (published online).
Note: SBA=Stand-By Arrangement; EFF=Extended Fund Facility; FCL=Flexible Credit Line; PLL=Precautionary and Liquidity Line.

44. During the height of the GFC itself, central bank swap lines were more instrumental than IMF programs or precautionary credit lines in reassuring markets by providing access to a large, rapid source of short-term liquidity. However, such swap arrangements are not aimed at meeting countries' balance of payments needs and were offered only to a limited number of systemically important countries as a means to facilitate bank funding. Fed swaps were aimed at providing dollar liquidity to partner central banks so that they can provide dollar funding to banks overseas and to banks who had previously funded positions through U.S. money markets. They provide an alternative to counterparty central banks running down their foreign exchange reserves, rather than providing funding for countries with inadequate reserves. Further, such swaps are only available to a very narrow group of countries, and political resistance to the Fed's swap program means that the future potential of such programs in the United States is uncertain.

45. There is continuing interest in the IMF playing a greater role in providing short-term liquidity support in the future. De Gregorio and others (2018), Weder di Mauro and Zettelmeyer (2017), Henning (2016), and Truman (2010) have called for an explicit role for the IMF in determining the prequalification for central bank swaps, partly to enhance transparency and to extend the network to a wider constituency. Thus, the criteria for an FCL or PLL arrangement could be used also to signal eligibility for swaps from reserve currency central banks. For Weder di Mauro and Zettelmeyer (2017) "this would both create good policy incentives and increase the attractiveness of the FCL as a key to unlocking access to emergency central bank liquidity, with IMF funding acting only as a backstop." In principle, this recommendation could be useful, but it is likely that the Fed and other originators of swaps will want to retain independent control over the set of countries to whom they provide liquidity and how the funds are used. Further, the G-20 Eminent Persons Group in 2018 recommended steps

to bolster global financial resilience that included intensified collaboration between the IMF and RFAs as well as creation of a new standing IMF liquidity facility.

46. There may be more scope to strengthen cooperation between central banks, the IMF, and RFAs. Initially, there was a perception that RFAs may pose a challenge to the Fund since they could be seen by countries as an alternative to accessing Fund resources. Following the difficult experience under the euro area programs, collaboration between the IMF and RFAs is now being enhanced, consistent with the framework established in 2017. In practice, the Fund has played a direct role supporting RFAs, providing technical expertise and parallel training. In some cases, RFAs have chosen to link financing to access to Fund credit as a source of additional financing and to tap into IMF expertise in crisis management and conditionality, for example, in the Chiang Mai Initiative Multilateralization and the BRICS Contingent Reserve Arrangements.

47. In summary, the GFSN has increased in complexity since 2008 and the Fund has adapted to the changing constellation of organizations and agencies involved in international monetary cooperation. The Fund's crisis management experience, analytical capacity, and surveillance machinery have proven particularly valuable, although the stigma associated with lending continues to create barriers. Looking ahead, ways to strengthen the Fund's role in the GFSN continue to be discussed, given that the Fund is unique in the size and breadth of its membership and its ability to provide substantial short-term conditional liquidity to members in balance of payments crisis.

V. CONCLUSIONS

48. While the Fund has made commendable efforts, it has nonetheless struggled from the very outset to fully live up to its mandate to promote international monetary cooperation. National governments have guarded sovereignty over their policies, and key decisions regarding the international monetary system have often been taken by the major countries in small settings (e.g., G-5/G-7). Nevertheless, the Fund's liquidity facilities, technical expertise in crisis response, and ability to be a forum for discussion have left the Fund with a useful role to play, particularly in providing financing in times of balance of payments stress.

49. Since the GFC, the Fund has played a highly visible role in the international community's response. Thus, while initial short-term liquidity provision came from bilateral central bank swaps, the Fund played a substantial part in crisis financing through its traditional facilities and new precautionary instruments, helped by a rapid augmentation of its resources. In addition, the Fund played a major role in providing technical support to the G-20, which emerged as the leading global body for international monetary cooperation immediately after the crisis, particularly in support of the MAP. It has also strengthened the coverage of spillovers and external imbalances in its bilateral and multilateral surveillance.

50. Nevertheless, consistent with previous experience, the Fund was less effective in playing a role in promoting policy cooperation at times of considerable stress between national interests.

While the work on spillovers and external imbalances and the G-20 MAP have generally been seen as helpful and technically of high quality, this work had only limited success in mediating tensions among countries arising from the use of UMP by some countries and the consequences for other countries affected by currency and financial spillovers.

51. There are also continuing challenges to the Fund's capacity to provide backstop financing for countries with strong fundamentals affected by difficult global market conditions, as has occurred occasionally during the reversal of UMP. The FCL instrument has been a success for countries entering into the arrangement, but take-up has been limited and at the same time it commits a large proportion of the Fund's available resources. Other proposals for more widely usable instruments have not prospered.

52. In sum, despite serious efforts, the IMF's record in promoting international monetary cooperation since the GFC has been decidedly mixed. It has been able to fulfill its long-standing mandate to provide financing to countries facing balance of payments needs, with some helpful innovations to provide precautionary backstops and work with RFAs. It has also provided the machinery for consultation on international monetary problems. However, in the end the Fund's influence and traction in promoting collaboration has remained constrained by the continuing desire of the major economies to set policies primarily with an eye to domestic priorities.

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Chapter 2—IMF Spillover Analysis

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I. INTRODUCTION

1. The use of unconventional monetary policies (UMP) in the advanced economies (AEs) since the Global Financial Crisis (GFC) has raised concerns about the spillover consequences for emerging market (EM) countries, especially as these policies remained in place for a prolonged period. There is broad consensus that the first phase of interventions in 2008–09 successfully restored market functioning at the acute stage of the crisis, averting a complete meltdown, with clear benefits across the global economy. The efficacy of subsequent rounds of UMP and their global benefits have been open to more debate. From 2010 onwards, the benefits of UMP for the AEs seem to have been subject to diminishing returns and a number of EM officials both within and outside the G-20 have emphasized that capital flow volatility induced by UMP posed difficult challenges for EMs (Rajan, 2013, 2015; Carstens, 2015), while Mantega (2010) criticized AE policymakers for starting a "currency war."

2. The IMF responded to these concerns from its EM member countries along four lines: (i) increased analysis of spillover effects from UMP and other policies, featured in the Spillover Reports and policy papers; (ii) accelerated development of an Institutional View (IV) on Capital Flows to guide IMF advice on an expanded toolkit of policies including capital flows measures (CFMs) through which EMs could handle volatile capital flows; (iii) intensified surveillance efforts to strengthen international monetary cooperation; and (iv) launch of new contingent financing instruments such as the Flexible Credit Line (FCL) to provide backstop support to EMs faced with capital market pressures. The first two aspects of the IMF's response are evaluated in this chapter, with the other two evaluated in Chapter 1 of this background paper (Schenk, 2019).

3. The evaluation is based on a desk review of the relevant documents such as the Spillover Reports and the modeling efforts on which the reports drew, and the work underlying the IV. It also benefits from interviews with IMF staff, experts at other institutions and academics, current and former officials, as well as the country case studies. When relevant, IMF work is benchmarked against work of other institutions such as central banks. Views of authorities interviewed for the country case studies are briefly recapped in this chapter.

4. Section II of the paper reviews the channels through which monetary policies can have spillovers, focusing on the financial channels uppermost in the minds of many EM central bankers. Section III describes and assesses IMF work on spillovers—the Spillover Reports, other analytic work, and efforts to foster discussions through conferences and other forums. Section IV provides an assessment of staff work on the institutional view on capital flows. Section V summarizes the main findings.

II. MONETARY POLICY SPILLOVERS: TRADE AND FINANCIAL CHANNELS

5. Conventional monetary policies can have spillovers through trade and financial channels, each of which can have both positive and negative impacts on other countries, making it difficult to assess the net effect. This section reviews these channels, and then considers the further

difficulties in analyzing spillover effects in the presence of a global financial cycle—the assertion by Rey (2013) and others that U.S. monetary policy drives conditions across international financial markets—and the implications of use of unconventional, rather than conventional, monetary policies.

6. In a standard macroeconomic model, trade spillovers from an expansionary monetary policy work through two channels, a demand channel and an exchange rate channel. The spillovers can be of a "beggar-thy-neighbor" nature if expenditure-switching effects from the exchange rate effect dominate expenditure-creating effects.[1] Other factors matter as well. If expansionary policies are in place in the source country for a prolonged period, long-term export capacity could be damaged in the recipient country through hysteresis effects, a particular concern underlying the "trade wars" pushback to UMP. The presence of cross-border value chains could also modify transmission through the exchange rate channel (Johnson, 2014).[2] Empirical assessment is needed to measure the strengths of these effects and the overall trade spillover effect.

7. Increasing capital mobility has raised the possibility of spillovers from monetary policy decisions through financial channels. These spillovers can operate through capital flows between source and recipient countries, balance sheet effects due to changes in the exchange rate and long-term interest rates, and effects on bank health.[3] As with the trade channel, assessing the overall effect is difficult. Easier monetary conditions in the source country can promote growth in recipient countries if they ease financial conditions by increasing access to external credit. Conversely, spillovers could be damaging to recipient countries by heating up an economy already in a growth phase. Spillover effects could also be detrimental if volatile capital flows lead to boom-bust asset price or credit cycles. The ability to ride out boom-bust cycles depends in part on the strength of fundamentals—actual or as perceived by markets—in the recipient country.

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[1] In contrast, a fiscal expansion leads to an appreciation of the source-country exchange rate, along with an increase in its demand, both of which increase the demand for imports from the recipient country; hence, the spillovers from fiscal easing can be unambiguously positive in theory. Of course, in practice, the beneficial effects can depend on the recipient countries being in a similar phase of their respective business cycles; if not, a source-country fiscal expansion can lead to a "overheating" of the recipient country.

[2] See Borensztein (2019).

[3] Another channel, beyond the scope of the discussion in this chapter, is through the impact of monetary policy in large source countries on international commodity prices, especially when these prices are set in the source country currency (Gopinath, 2016). These price movements can affect the terms of trade of commodity-exporting countries as well as countries that are commodity importers. EM that depend upon commodity exports are especially vulnerable to inflationary pressures from source-country monetary policy that raises commodity prices worldwide.

8. EMs can take policy actions to help manage the consequences of these capital flow surges but face constraints, both economic and political.[4] The well-known "policy trilemma" states that countries have to choose between monetary autonomy and management of the exchange rate when capital markets are open. EMs with floating exchange rate regimes can let their currencies appreciate in the face of monetary easing but at the cost of some adverse effects on their export sector and growth. EMs with pegged exchange rates can face an overheated economy and asset price bubbles, especially when their business cycles are not synchronized with the advanced economy to which they peg their currency. Countries can try to avoid these adverse consequences through capital flow management measures, also known as capital controls. Such measures can potentially offset pressures on the exchange rate and can be used, along with macroprudential policies, to mitigate movements in asset prices. All these policies are subject to political economy factors; it is unrealistic to assume purely technocratic decision making.

9. The importance of understanding financial channels and the role of capital controls has received an impetus from the work of Rey (2013). She argues that widespread co-movement in capital flows, asset prices, and credit growth across countries (a global financial cycle) "transforms the trilemma into a 'dilemma'" or "irreconcilable duo: independent monetary policies are possible if and only if the capital account is managed." She further argues that U.S. monetary policy is mainly responsible for the global financial cycle. A reduction in the U.S. policy interest rates reduces uncertainty and risk aversion in financial markets (measured by the global risk aversion measure or VIX), in turn leading to higher international capital inflows, increased credit creation, greater leverage, and higher asset price inflation. When U.S. policy rates tighten, things go in reverse and countries face capital outflows.[5] According to Rey, these co-movements occur regardless of the country's exchange rate regime (hence the dilemma rather than the trilemma), so the policy tool to reduce the impact of the global cycle on domestic conditions is not the exchange rate but capital controls.

10. Spillovers differ in nature and can have many causes, which make them difficult to analyze and model even when policies in source countries follow conventional frameworks. The situation gets more complex when economic conditions are unique or extreme—as has been the case over the past decade—and policymakers have to resort to unconventional instruments, as when short-term interest rates hit the zero lower bound and the source country engages in UMP. Such difficulties could arise if, among other reasons, UMP affect risk or liquidity preferences more acutely than conventional monetary policy, if the impact on the exchange rate is large, or if markets are segmented and the types of assets offered by EMs are distinct from those offered in source countries like the United States. The problem is that challenging economic times are precisely when policymakers urgently need rigorous and insightful spillover analysis.

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[4] See, for example, Shambaugh (2010) and Shambaugh, Obstfeld, and Taylor (2004).

[5] The global financial cycle might operate through large financial intermediaries active in international capital markets, which lever up on riskier assets during tranquil periods (Shin, 2012; Agrippino and Rey, 2018).

III. IMF'S WORK ON SPILLOVERS

11. The IMF responded to the concerns of EM by devoting more resources to the analysis of spillovers. Much of this work was communicated through a new flagship product, the Spillover Report. There was considerable attention devoted to modelling spillovers through dynamic stochastic general equilibrium (DSGE) and other models, including a new large-scale model, the Global Financial Model, as well as other tools. The IMF also carried out some analytic work on the global financial cycle and fostered discussions on spillovers at high-profile events such as the Annual Research Conference.

Spillover analysis

12. In 2008–09, the financial turmoil in AEs led to adverse effects on the banking sectors, stock markets, and foreign exchange markets of emerging economies. A chapter in the April 2009 *World Economic Outlook (WEO)* noted that taking steps to reduce "individual countries' vulnerabilities, such as current account and fiscal deficits," provided "little insulation from the transmission of a major financial shock from the advanced economies." It argued therefore that avoiding such "major negative spillovers" required a coordinated policy response, including monetary and fiscal easing. The actions by the G-20 to provide a coordinated stimulus, supported by the IMF, stabilized financial markets in both advanced and emerging markets.

13. The IMF launched the Spillover Report in 2011 largely in response to rising concerns about cross-border spillovers from UMP.[6] The first report analyzed spillovers emanating from the four major advanced economies (MAEs) carrying out UMP (plus spillovers from another country of systemic importance, China). To better understand the concerns of the recipient countries, consultations were held with authorities from Brazil, Hong Kong SAR, India, Indonesia, Korea, Mexico, Poland, Russia, Singapore, and Thailand; similar consultations continued through 2013. Spillover reports analyzed monetary policy spillovers to emerging markets, albeit as one topic among many. Special attention was devoted to the effect of U.S. monetary policy easing and potential exit on capital flows to EM, the impact of asynchronous monetary policy normalization between the MAEs, and the effect of dollar appreciation on EM balance sheets.

14. While UMP was still seen as beneficial overall to EMs, the reports did identify significant challenges from these policies and policy messages underscored the need for international policy coordination. AEs were asked to clearly communicate their monetary policy intentions and adjust their policy mix to some extent to achieve different exchange rate outcomes. While calling on EMs to strengthen buffers and policy frameworks, the IMF also supported capital flow measures where needed. In its input into G-20 deliberations, the IMF's policy messages emphasized the need for joint action among all economies, while expressing concern about the appropriateness of the demand policy mix, which tended, in several cases, to burden monetary policy authorities

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[6] Spillover Reports were prepared by an interdepartmental team, with coordinating responsibility held by the Strategy, Policy, and Review Department between 2011 and 2013 and by the Research Department in 2014 and 2015.

disproportionately relative to fiscal authorities. The scale of the effort on the 2014 and 2015 reports was more modest and without the extensive consultations with country authorities that marked the earlier reports. Subsequently spillover analysis was again subsumed in the *WEO,* which included spillover chapters once a year (see for example, Chapter IV of the October 2016 *WEO* on spillovers from China's transition and international migration, Chapter IV of the October 2017 *WEO* on fiscal policy spillovers, and Chapter IV of the April 2018 *WEO* on cross-border knowledge and technology flows).

15. After the 2012 Integrated Surveillance Decision (ISD; see Chapter 1), Article IV consultations with source countries included a discussion of the spillover impacts of their policy choices based on the analysis contained in the spillover reports. The analysis in the reports also fed into the surveillance notes prepared for the G-20, which discussed how spillovers could be partially mitigated through international policy cooperation. The 2011–13 period was also marked by substantive internal discussions of spillovers, often at the weekly surveillance meetings.

16. Spillovers from UMP were also considered in other IMF reports over this period, particularly in the 2013 Joint Policy Paper "Global Impact and Challenges of Unconventional Monetary Policies" prepared by the Monetary and Capital Markets Department (MCM), the Research Department (RES), and the Strategy, Policy, and Review Department (SPR). The analysis was based on the Fund's traditional DSGE model (the Global Integrated Monetary and Fiscal model) as well as a "conceptual" small open economy model that allowed for the possibility of financial instability through capital inflows and subsequent outflows operating though nonlinear effects like easing credit conditions. In light of such nonlinear effects, the paper warned that the potential risks from ongoing UMP could rise over time, including by increasing financial instability, as highlighted by Rajan (2013). Published a few months after the "taper tantrum," the paper also warned of capital flow volatility as AEs exited UMP and urged that the Fed communicate clearly to minimize "signal" surprises. On net, however, the paper concluded that UMP in the MAEs had been beneficial for themselves and non-UMP economies, with the earlier actions being more beneficial than later ones (IMF, 2013). An event study of U.S. monetary policy spillovers suggested that spillovers during the UMP period were larger than during conventional monetary policy easing and were inversely proportional to recipient country fundamentals and market liquidity (Chen, Mancini-Griffoli, and Sahay, 2014). Chapter II of the April 2016 *WEO* reaffirmed these findings using econometric analysis, showing the importance of expected changes in U.S. interest rates in driving capital flows and the role of expectations in determining the timing of such flows in connection with the time when monetary policy "news" materialize.

DSGE and vector autoregression models

17. The Spillover Reports were deliberately eclectic in their choice of models, recognizing that a single approach could not incorporate all the possible channels, particularly the financial channels discussed in Section II. Methods used included the workhorse DSGE models and vector autoregressions (VARs) but were augmented by in-depth factual descriptions of country linkages, event studies, partial equilibrium analysis, and network analysis, and corroborated by research

bridging the empirical evidence on spillovers with the dynamics of structural models in the context of financial and trade shocks (see, for example, Blanchard, Das, and Faruqee, 2010). In bilateral consultations, staff relied on the full range of this work, but the IMF's overall policy stance toward UMP drew largely on scenario analysis with DSGE models or on VAR analysis.[7]

18. With respect to DSGE models, the existing workhorse model used in RES—known as Flexible System of Global Models (FSGM)—was adapted to include features that allow for financial shocks.[8] Thus, FGSM includes an external financing premium for firms, a sovereign risk premium, a domestic private economy risk premium, and a term premium. The model could be used to consider how an exogenous change in one or more of these premiums in source countries would spill over to affect recipient countries. For example, with an increase in the U.S. term premium (e.g., mimicking the withdrawal of UMP), the U.S. real effective exchange rate appreciates, leading to a smaller net effect on the current account. But, importantly, the model does not have a channel for the direct transmission of financial shocks across borders.

19. Given the limited capacity of the existing models to capture cross-border financial channels MCM staff developed a new model, the Global Macrofinancial Model (GFM) that includes a more detailed financial sector than the more commonly used FSGM. The structure and properties of this model, compared with other models used at the Fund and at major central banks, are described in Annex 1. As discussed in the Annex, this is done by distinguishing households by their access to financial markets, by including imperfectly substitutable assets, and by modeling the behavior of banks. The financial spillovers in GFM are, nevertheless, limited by its structure and it is difficult to incorporate bank distress in the model, an important channel for spillovers during the GFC.

20. Some of the early Spillover Reports used the GFM model or its precursors. For instance, the 2011 report used GFM to assess spillovers on EMs from both the ECB and the Federal Reserve's monetary easing and to assess differences in spillovers between conventional and unconventional U.S. monetary policies. In 2014, the GFM was used to simulate an asynchronous exit from UMP (the United Kingdom and the United States ahead of euro area and Japan), differentiating its effects between "vulnerable" and "other" EMs (as groups). Despite its differences from the Fund's previous models, the GFM generally continued to deliver the result that UMP by the MAEs conferred benefits on net to EMs.

21. VAR models were used as an alternative to DSGE models for considering the effects of spillovers. These models require fewer explicit assumptions about household and firm behavior but need convincing identifying restrictions to estimate the contribution of different shocks. In the most commonly used VAR models, staff assumed that an improvement in growth prospects in AEs ("real shocks") would be reflected in a simultaneous increase in equity prices and interest

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[7] For a detailed description of the evolution of models used by staff during the GFC, see Jeanne (2018).

[8] Precursors of the FSGM (notably the Global Economic Model, GEM, by Laxton and Pesenti, 2003; and Global Integrated Monetary and Fiscal Model, GIMF, by Kumhof and Laxton, 2007) were also used in spillover analysis.

rates in these countries. These shocks were then used as exogenous variables in a panel VAR to trace out their effects on EM growth and capital inflows. The analysis, used extensively in the 2014–15 reports, found that good news about growth prospects in AEs—which it was assumed UMP would deliver—led not only to more growth in EMs but also higher net capital inflows (the latter effect occurred because the good news about AE growth boosted investor risk-appetite and thereby capital flows to EMs).[9] At the same time, the VAR analysis highlighted the risks to EMs from other types of shocks, such as an unanticipated tightening by the Fed that could lead to dollar appreciation and balance sheet problems for EMs or asynchronous actions by two major central banks such as the Fed and the ECB.

Global financial cycle

22. IMF researchers also contributed to the debate on the impact of the global financial cycle, and presented evidence supporting the more traditional view that countries with floating exchange rates can insulate themselves better than those with fixed exchange rates. Obstfeld, Ostry, and Qureshi (2018) showed that the transmission of global financial shocks to domestic financial conditions in EMs is magnified when the country has a fixed exchange rate. An increase in the VIX lowers credit growth, housing prices, and bank leverage in EMs significantly more when the country has a fixed exchange rate.[10]

23. In addition to the work of its staff, the IMF was active in providing a platform for the leading economists in the debates over spillovers. Hélène Rey, Ben Bernanke, and Raghuram Rajan all outlined their views through their Mundell-Fleming lectures at the IMF's high-profile Annual Research Conference (ARC) on the prevalence and impact of the global financial cycle. Several other policymakers and academics participated in panel discussions on spillovers at ARC, with more technical work discussed at joint workshops organized by the Fund with the Fed and Bank of England.

Assessment

24. The Spillover Reports were a laudable effort to take EM concerns about spillovers seriously. They involved large multi-departmental staff teams and featured innovative modeling approaches, which confirmed some of the risks that concerned EM policymakers (e.g., the impact of cross-border bank deleveraging or the balance sheet effects of currency movements). While much of the analysis confirmed the Fund's "house view" that what was good for the AEs was, on net, good for EMs, staff who worked on spillover analysis stated that they did not feel that they

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[9] The source of shocks can be further disentangled by including exchange rates as well, and then distinguishing real shocks due to U.S. growth as causing an appreciation of the dollar and real shocks due to an increase in risk appetite as causing a depreciation of the dollar as investment moves to more risky locales from the United States (both of these real shocks are associated with a positive correlation between interest rates and equity prices—see Annexes V, VI, and IX in the 2014 Spillover Report).

[10] They use the VXO, a precursor to the VIX, that allows for a longer sample period for their regressions.

were expected to reach such a conclusion or that their analysis and views were censored in any way.

25. EM officials interviewed for the country case studies appreciated the Fund's increased efforts on spillover analysis, though they felt that the analysis had not sufficiently departed from the Fund's priors and had not ended up providing practical policy advice for them. That said, authorities emphasized that spillover analysis remained a comparative advantage of the Fund and should remain high on the Fund's research and policy agenda. A couple of senior policymakers suggested that the Fund assess the lessons learned from its experience with the Spillover Reports and consider how the product could be improved and perhaps relaunched. Some concern was expressed that with the absorption of spillover analysis into the *WEO*, the agenda has been placed on a back burner, especially given that the *WEO's* recent focus has been on trade rather than financial channels.

26. The efforts to improve the Fund's modeling analysis received mixed reviews from academic experts and those in central banking circles, where DSGE models are actively used. The GFM was regarded as innovative but remained too much of a "black box"—particularly since its results differ significantly from more conventional DSGE models. For example, it delivers an impact on U.S. output from a decline in U.S. interest rates that is much larger than in the Fund's traditional models such as the FGSM or in similar models used at the Fed and the ECB (Table 1).[11] This large effect in turn generates large positive impacts on other AEs and on EM, particularly those with open capital markets. While there are also other issues with how financial frictions are introduced in GFM (noted in the Annex), its difference from other models in this key elasticity merits closer attention before its results are accepted more widely.

Table 1. Quantitative Spillover Estimates from DSGE Models

Model	GFM (G35)	FSGM	SIGMA (FRB)	ECB-Global
Published in:	2013 Spillover Report, Background # 5	WP/15/64 (pp. 47–48)	IFDP notes 2/8/2016	ECB WP No.2045, 2017
Exogenous policy change:	U.S. long-term interest rate ↓100 bp	U.S. term premium rises, 100 bp decrease in 10-year rate	U.S. long-term interest rate ↓ 25 bp	U.S. short-term interest rate ↓100 bp
Direct output effect:	U.S. real GDP rises 3.4 pp in Year 1	U.S. real GDP falls 0.25 pp at trough	U.S. real GDP demand ↑ 0.5 pp	U.S. output gap ↑ 0.6 pp (2 quarters)

Source: Compiled by author from Fund and central bank documents.

[11] For example, in the GFM results used in 2013 Spillover Report, a decrease in the 10-year U.S. Treasury Bill interest rate by 100 basis points is estimated to lift U.S. output by 3.4 percentage points in the first year, an estimate considerably higher than that in other models.

27. There are also broader questions about how useful DSGE and VAR models can be in analyzing financial channels. Many staff said such models were useful in that they provided a coherent framework that could be used as a good "vehicle for constrained story-telling" and lay the groundwork for policy messages from the IMF. However, outside observers, and some Fund staff themselves, mentioned that the lack of transparency ("black box feature") of the models could have contributed to the view among some policymakers from EMs that the models were incorrect or biased against their countries. VAR analysis can be more flexible in incorporating a variety of channels for spillovers. The weakness in these models is that the identified shocks can come from a broad range of sources that can include both policy actions and market movements, and this aggregation of causes may limit the usefulness of these results for policy work. Importantly, like other types of calibrated and estimated models, both DSGE and VAR models are subject to model uncertainty at times of profound structural change, like the one characterizing the years immediately after the GFC, limiting the reliability of spillover analysis.

28. In light of these limitations, recent academic analysis of the channels of financial spillovers has tended to follow a different approach based on smaller models, which offer a level of detail to incorporate frictions that cannot be handled in a large-scale macroeconomic model or in a multi-bloc VAR. Such analyses would be more partial-equilibrium in nature and focus on more granular study of channels through which financial spillovers arise. Some recent examples from the academic literature focusing on the operation of banks that borrow and lend across national borders are included in Box 1. IMF staff are contributing to some of this work but do not appear to be in the vanguard. While these studies do not attempt to quantify economy-wide effects, they may build intuition about how particular channels operate and, combined with staff judgment about the likely importance of the overall effects, may prove useful in providing policy advice to EMs.

29. While the crisis triggered isolated staff analysis linking differences in monetary policy stances and exchange rate movements (see Batini and Dowling, 2011), Fund staff could also have been more active in research on whether UMP has stronger spillover effects on EMs than conventional monetary policies in the presence of financial market segmentation and differences in the range of assets between AEs and EMs. Forbes (2018) surveys the recent literature—with no IMF contribution listed in the references—and concludes that this issue remains open in the absence of conclusive evidence that UMP have larger international effects than conventional monetary policy in terms of the size and volatility of capital flows and exchange rate fluctuations experienced by EMs. Federal Reserve Board Governor Lael Brainard has made the point that if such segmentation exists, AEs could undertake monetary policies that would have more limited spillover effects on EMs (Brainard, 2017). Brainard considers a case in which EMs' exchange rates and financial markets are more insulated from changes in yields of AEs' longer-maturity bonds than their shorter-maturity bonds because EMs' assets are more substitutable with the latter than

with the former.[12] An implication of this is that source countries like the United States could consider a policy mix between different monetary policy instruments with the same domestic impact but with reduced spillover effects.

30. Research on the global financial cycle will continue to be active in academic and policy circles. The Fund has appropriately been open-minded about the prevalence of such a cycle and its implications and has used its convening power to foster useful debates on the issue. The Fund also conducted useful analytic work on the issue. It is important that the Fund stay engaged and visible on this topic.

Box 1. Selected Research on Specific Financial Spillover Channels

- Ivashina, Scharfstein, and Stein (2015) highlight how an adverse shock to the credit quality of European banks during the euro zone sovereign crisis led to a sharp reduction in funding by U.S. money markets and a fall in dollar lending by these banks in both Europe and the United States. A striking manifestation of this was large violations of covered interest parity. Swap lines from the Federal Reserve were an important policy response that helped alleviate this problem.
- Amiti and Weinstein (2011) show how financial distress disproportionately affects exports because international trade involves higher default risk and higher working capital requirements than intranational transactions. Their empirical analysis focuses on Japanese exporters, but it is not unreasonable to consider this effect operating in other AEs as well as in EMs.
- Avdjiev and others (2018), in a paper prepared for the 18th *IMF Annual Research Conference*, show that exchange rate fluctuations can operate through cross-border bank flows in the opposite direction from the exchange rate effect on trade. With the potential for currency valuation mismatches, a weaker dollar improves the balance sheets of non-U.S. borrowers, increasing their demand for borrowing and raising investment in their country. There is a supply-side effect as well, since the balance sheet effect makes borrowers more creditworthy and, therefore, lenders more willing to supply cross-border funding. In this way, an appreciation can be expansionary rather than contractionary and a subsequent depreciation can bring on financial distress.
- The ability to conduct analysis of the role of banks in international financial flows has been bolstered by the International Banking Research Network, led by Claudia Buch and Linda Goldberg, and established in 2012. In their 2015 article in the *IMF Economic Review*, Buch and Goldberg summarize some common themes from the 11 country case studies from 11 countries that bear on spillovers and policy responses, including that liquidity conditions that affect parent banks transmit to both domestic and foreign lending of these banks and that the availability of official sector liquidity during periods of stress tends to reduce adverse outcomes due to bank balance sheet constraints.

[12] This would mean that emerging market exchange rates and financial markets move more with AE short-term interest rates. She cites some empirical support for this position from a 2016 working paper (Stravrakeva and Tang, 2016).

IV. INSTITUTIONAL VIEW ON CAPITAL FLOWS

IMF work on the Institutional View

31. The IMF has traditionally favored capital account liberalization as a long-run goal but generally emphasized a sequenced approach in line with the liberalizing country's market and institutional development rather than "big bang" type reform. In the second half of the 1990s, and especially following the East Asian crisis, the IMF increasingly emphasized the need to satisfy certain preconditions prior to liberalizing capital flows in order to gain long-run growth benefits while containing risks of increased financial instability. Liberalization was advocated as part of a comprehensive set of reforms, including prudential regulation, and it was recognized that the benefits of liberalization were conditional on the quality of domestic institutions and the quality of governance (Prasad and others, 2003; IEO, 2005). Measures aimed at restricting capital movements were generally described as likely to be only temporarily effective at best and damaging to financial market development.

32. Policy challenges in the wake of the GFC prompted a reevaluation of the appropriate role of CFM measures at the Fund. As some EM countries introduced such policies in the face of surging capital inflows, the IMF published a number of staff studies and policy papers that recognized that an additional policy instrument could be a useful part of the policy toolkit for a country in the face of volatile capital flows (Ostry and others, 2010; 2011). This work contributed to a shift in the IMF's policy stance towards capital controls, which was eventually systematized as the Institutional View (IV) on Capital Flows and finally approved by the Executive Board in 2012 after much discussion (IMF, 2010; 2011a; 2011b; 2012a; 2012b).

33. Despite the popular perception that the IMF had made a 180-degree turn in its policy, the shift was in fact quite nuanced. The IV continues to recommend that countries adjust to destabilizing capital inflows in the first instance through conventional macroeconomic policies, including by allowing an exchange rate appreciation, accumulating reserves, lowering interest rates, sterilizing the inflows, and tightening fiscal policy. The IV stipulated that CFMs should not be a substitute for such adjustments but could become a legitimate component of the policy response when appropriate adjustments have occurred but are not sufficient to address vulnerabilities. Even in that case the policy recommendation is to "impose/strengthen controls on capital inflows *taking due account of their effectiveness and multilateral impact*" (emphasis added). The IV recommends that CFM should be targeted, transparent, and generally temporary, lifted once the surge abates in light of their cost.

34. Experience with the IV was subsequently reviewed in 2016 (IMF, 2016), and since then its application has been further clarified by a Board paper on the role of macroprudential policies (IMF, 2017a) and by a note to the G-20 on the application of the IV in practice (IMF, 2018). Notwithstanding these efforts, concerns remain about the IMF's policy advice in this area. In implementing the IV, there have been tensions between the goal of providing clear and consistent positions on whether CFMs are warranted, as called for by the International Monetary

and Financial Committee in April 2017, and the need to be evenhanded and to respond to country circumstances. In addition, on the overall design of the IV, questions have been raised about timing issues such as whether CFMs could be applied preemptively or only in the face of a surge of capital flows and then only temporarily; the approach for using CFMs to deal with capital flow reversals, an increasingly relevant issue as AE monetary policy normalizes; and the application of the IV to the housing sector, where social and other goals may be important.

Assessment

35. While academics and policymakers continue to debate the long-term benefits of full capital account liberalization, several influential voices have supported the Fund's view that CFM measure may be useful in certain circumstances. The Fund's view was supported, for example, in a publication by the Peterson Institute entitled "Who Needs to Open the Capital Account?" (Jeanne, Subramanian, and Williamson, 2012). As already noted, Rey (2013) suggested that capital flow measures could insulate countries from the global financial cycle. Blanchard (2016) argued that "if there are limits on the use of fiscal policy by AEs, leading to the overreliance on monetary policy and undesirable effects on the exchange rate, the natural instrument in this context is the use of capital controls by EMs." Support for the use of CFMs is bolstered by theoretical papers that offer models in which such measures are shown to contribute to an optimal approach to financial stability and macroeconomic management.[13] These papers typically include impediments to capital mobility as a tax in the uncovered interest parity relationship that drives a wedge between domestic interest rates and foreign interest rates. CFM policies change that tax, enabling authorities to fine-tune policies to achieve optimal outcomes, similarly to how authorities change the other key variable in the uncovered interest parity relationship, the policy interest rate.

36. Authorities in many countries, particularly in EMs, give credit to the IMF for being more open to the use of CFMs, though, as noted in the country case studies, Brazil and India were more welcoming of the IV than some other EMs, where CFMs are regarded as less relevant and useful given a strong commitment to an open capital account. Two issues have arisen, however, that suggest a rethinking of both the broad and narrow aspects of the IV may be needed. The broad issue is that some EM officials find the Fund's blessing for CFM to be only used as "last in the hierarchy of policies to deal with capital flows" as expanding their policy toolkit in a sufficiently flexible way.[14] Officials in some Asian EMs in particular would like Fund support for the use of these measures in a preemptive way and on a more permanent basis, rather than only in more limited circumstances.

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[13] For just a few of the many examples of theoretical papers, see Farhi and Werning (2012); Bianchi (2011); Jeanne (2012); and Jeanne and Korinek (2010).

[14] See ASEAN (2018).

37. The narrower aspect pertains to the labeling of certain measures in applying the IV in bilateral surveillance. Authorities in a number of countries, AEs as well as EMs, are irked by the Fund's labeling measures that they consider taken for financial stability reasons or to achieve social objectives as CFMs. For example, the recent disputes over labeling of measures in the housing sector to deal with the impact of foreign buyers of over-heated markets as CFMs threaten to erode some of the goodwill the Fund has gained over the past decade (see Darius and Loungani, 2019). It seems important for the Fund to resolve this issue. Staff's own research has noted that the distinction between CFMs and macroprudential measures may be fuzzy. For instance, Ostry and others (2011) wrote that "… the distinction between prudential regulations and capital controls may be blurred in practice. For instance, a regulation prohibiting banks from extending FX-denominated loans to unhedged borrowers is a prudential measure; yet, in the context of capital inflows, it might act as a capital control if most of the loans being extended in FX by domestic banks correspond to their own foreign borrowing."

38. A key point when considering the use of CFMs concerns their efficacy in practice. Much analysis conducted outside the Fund over the years and based both micro- and macroeconomic evidence has indicated that capital controls are hard to implement effectively (see, for example, Edwards, 1999; and Forbes and Warnock, 2011). However, policy practitioners have maintained that such measures can serve their purpose (ASEAN, 2018).

39. Assessment is complicated by a number of conceptual issues. For example, it is important not to conflate the experiences of countries with long-standing controls over a very wide set of assets with the experiences of countries, like Brazil, that attempted to use narrowly targeted controls as the need for them arose (Klein, 2012). Countries with wide, long-standing controls ("walls") have the administrative and institutional frameworks needed for effective enforcement, but administrative challenges may be greater where countries are seeking episodic use of narrower controls ("gates"). The effective use of these episodic controls requires an enforcement mechanism, but the lack of convincing evidence on the effectiveness of these types of controls suggests that they may be difficult to enforce. One possible reason is that countries that have had substantial exposure to international financial markets have a more agile financial system that enables easier evasion of controls. Furthermore, the appropriate timing of the imposition of episodic controls is complicated by recognition lags, implementation lags, and political considerations (Klein, 2012; Forbes and Klein, 2015; Klein and Shambaugh, 2015). The question of efficacy would seem to be a suitable topic for further research at the IMF.

V. CONCLUSIONS

40. The issue of cross-border spillovers of monetary policy has been tackled extensively in IMF analysis. Most impressively, the series of Spillover Reports provided an early and commendable effort to examine these issues using a broad range of approaches in the absence of any fully established model in the academic literature.

41. Having recognized this important contribution, however, there is also a sense that the IMF's work was too ready to support the conventional wisdom that overall central banks in the MAEs should be supported in doing what was necessary to ensure their economies regained health and that EM policymakers should adapt their policies to handle any potentially adverse spillovers in both originating and receiving countries, taking account of political economy constraints. The IMF could have devoted more effort towards identifying the channels for adverse spillovers that caused major concern for EM policymakers as well as the policies to mitigate the harmful effects of these spillovers. The most harmful effects of spillovers may well be through financial channels rather than through the trade account, and the modeling of such spillover channels is still not fully developed. Financial channels are difficult to embed in a large-scale macroeconomic model and, when they are included, appear as factors like exogenous shifts in the term premium or risk factors, which are too ad hoc a means to truly understand these effects and do not yield obvious policy prescriptions. In light of these difficulties in modeling financial channels in a DSGE or VAR model of the overall macroeconomy, it could be fruitful for IMF researchers to also pursue partial-equilibrium analyses of particular financial channels, as discussed above, especially since many staff maintained that such models were useful for providing a coherent framework that could be used as a good vehicle for "constrained story telling." In these areas, researchers at central banks and academia have generally played a more prominent part, particularly in recent years when Fund work has been less prominent, especially after the Spillover Report was discontinued.

42. An area where IMF staff has contributed strongly is the analysis of policies to manage capital flows, which has led to a framework for consistent policy advice, the IV, which has been applied in bilateral surveillance across the spectrum of countries. This work has benefited from a detailed review of country experience as well as conceptual work. Despite these achievements, assessing policy prescriptions remains difficult, not least because countries differ along a range of relevant dimensions such as regulatory frameworks, institutional structures, and economic profiles. The strong views of some member countries that the IV does not provide sufficient flexibility in the use of CFMs with the Fund's blessing deserves consideration. At the same time, it should be recognized that reaching a new consensus could be difficult given the spectrum of views within the Fund's Executive Board on the desirability of CFMs, which mirrors the spectrum of views among policymakers and academics. Further work by the IMF to analyze the efficacy of CFMs would provide useful information to all its member countries, regardless of their views on the desirability of controls, and could underpin a broader reconsideration of the IV itself.

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