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# STRENGTHENING THE INTERNATIONAL MONETARY SYSTEM—A STOCKTAKING

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# STRENGTHENING THE INTERNATIONAL MONETARY SYSTEM—A STOCKTAKING

## EXECUTIVE SUMMARY

**In light of the changing contours of the global economy, this paper provides an overview of the challenges facing the International Monetary System (IMS).** It seeks to forge a common understanding of the challenges facing the IMS and its shortcomings, and to lay the basis for discussing a possible roadmap for further work on reform areas.

**Today's IMS has displayed great strength**. It has evolved over the past four decades to become much less prescriptive than its predecessors that had more rigid rules. Indeed, many of the characteristics of today's IMS—freedom in the choice of exchange rate regime, a *de facto* central role for the US dollar in the global financial system, the increased openness of trade and capital flows—provided more flexibility in responding to shocks and crises. Throughout this period, the Fund, as the central institution responsible for overseeing the system, adapted to support the post-Bretton Woods system. At the same time, this evolution coincided with a period of greater international trade and financial globalization, broad-based income growth and poverty reduction, but also increasing inequality.

**But the 2008/09 crisis revealed considerable weaknesses in the IMS, which provided impetus for reform.** In particular, the system did not prevent tensions building between the pursuit of domestic policies and global stability. Moreover, weaknesses in financial oversight allowed vulnerabilities to build up. The Fund responded, taking major steps to overhaul its surveillance and lending toolkits. Other institutions and country grouping also strengthened interagency coordination (e.g., between the Fund and FSB, the G20 Summit). However, with the deepening euro area crisis in 2011, policymakers shifted focus toward the more immediate policy challenges.

**Furthermore, major structural shifts are continuing to transform the global economy, with implications for the functioning of the IMS.** The center of global economic 'gravity' continues to shift, as emerging market and developing countries (EMDCs) integrate further into the global economy. At the same time, financial interconnectedness has become more pronounced, with financial cycles growing in amplitude and duration, capital flows have become more volatile, and nonbanks have gained importance, altering the nature of systemic risk. The legacy of slow post-crisis global growth in particular in advanced economies (AE), the prospect of monetary policy normalization coming in succession over the next few years from the reserve currency issuing central banks, along with major shifts—China's rebalancing, slower growth in EMDCs, and the end of the commodity supercycle—will present further

challenges to the system. Furthermore, shocks of a non-economic origin—such as refugee flows triggered by geopolitical conflicts and global epidemics—affect some countries and regions, and, if left unchecked, could have significant spillover effects on the global economy.

**The confluence of these structural shifts raises tensions and risks, underlining the need to strengthen further the system**:

- While *global current account imbalances* shrank, the post-crisis adjustment reflected mainly compressed demand in AE deficit countries, with limited contribution from real exchange rate movements.
- In a highly interconnected global financial system, policy and financial developments in major reserve issuing countries have significant spillover effects on others, thus, constraining *domestic policy choices* in countries with open economies and less developed financial markets, and more so in those with fixed exchange rates.
- Periodic episodes of *capital flow volatility* appear to have become a feature of the new global landscape, contributing to financial pressures and balance-sheet mismatches, particularly in EMDCs, where financial markets are less developed.
- The build-up of financial risks, particularly in nonbank financial institutions, has highlighted *imperfections in the oversight* of the global financial system.
- Liquidity shocks during periods of financial stress could pose systemic risks and the *more fragmented global financial safety-net* (GFSN) could make it more difficult to effectively support countries during stress and crisis periods.

**Moreover, with the overarching goal of the IMS to provide a framework that sustains economic growth, the slowdown of EMDCs' convergence to AE income levels raises the question how the IMS could better support this process.**

**Against this backdrop, possible reform avenues could aim at strengthening crisis prevention and global mechanisms for adjustment, cooperation, and liquidity provision.** In particular, as the world navigates a low growth environment and EMDCs continue to integrate and deepen their financial markets, risks and vulnerabilities associated with interconnectedness and openness need to be managed. Accordingly, reforms could focus on three possible areas: (i) mechanisms for crisis prevention and adjustment; (ii) rules and institutions for enhanced global cooperation on issues and policies affecting global stability; and (iii) building a more coherent GFSN. While many of the possible reform ideas have been considered in the past, events and continued changes that occurred over the last few years make it important to consider these in a holistic manner, and with a new perspective. Follow-up work could flesh out possible reform ideas, including their feasibility.

| Approved By | Strategy, Policy, and Review Department, in consultation with other departments |
|---|---|
| **Siddharth Tiwari** | |

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# INTRODUCTION

1. **The global financial crisis provided some impetus for addressing weaknesses in the International Monetary System (IMS)**. The Fund's 2011 paper on "Strengthening the International Monetary System: Taking Stock and Looking Ahead" proposed reforms to address such weaknesses. The Fund, in particular, took major steps to overhaul its surveillance and lending toolkits, adapting them to a highly interconnected world. These were mirrored by initiatives of other international institutions and country groupings, and efforts were made to strengthen interagency coordination (e.g., between the Fund and FSB, scaling up G20 engagement with an annual Leaders' Summit since November 2008). Although there have been significant further steps in recent months,[1] the broader impetus for reform has slowed. Amid the deepening euro area crisis in 2011, policymakers shifted focus toward the more immediate policy challenges.

2. **Ongoing global economic and financial changes call for a renewed dialogue on the effectiveness of the IMS**. The world continues to become more multi-polar as emerging market and developing countries (EMDCs) integrate further into the global economy. Financial markets are becoming more complex, with more pronounced interconnections and nonbank players growing in importance. These shifts present major opportunities for global growth, but also significant risks to global economic and financial stability. They also bring renewed importance to stepping back and considering the functioning of the IMS.

3. **This paper aims to take stock of the ongoing effectiveness of the IMS**. To help guide the discussion, it is critical to establish a common understanding of what constitutes a well-functioning IMS (Section II). This provides the context to understand the implications of continued structural shifts in global economic and financial relations (Section III), and to diagnose key gaps for the present and future effective functioning of the IMS (Section IV). The diagnosis will help identify possible areas for reform that could be fleshed out in subsequent work (Section V).

# THE GOALS OF THE IMS AND ITS EFFECTIVE OPERATION

4. **The overarching goal of the IMS is to develop the orderly underlying conditions that are necessary for financial and economic stability.**[2] To this end, the IMS provides a framework that facilitates the exchange of goods and services, and capital among countries, and sustains sound economic growth. Achieving these goals involves balancing the needs of individual economies and the system as a whole, and over time as economic and financial relationships change. As the institution responsible for overseeing the IMS to ensure its effective operation (Article IV of the

[1] Recent reforms include the doubling of IMF quotas which made permanent some temporary resources provided to the IMF following the 2008 crisis and, combined with the ratification of the 2010 governance reforms, increased the voice and representation of dynamic EMDCs in the IMF, and the decision to include the renminbi in the SDR basket.

[2] IMF Articles of Agreement, Article IV, Section 1.

Fund's Articles of Agreement), the Fund, with its universal membership, has played a central—albeit evolving—role for the past 70 years in supporting these goals.

## A. What Constitutes a Well-Functioning IMS

5. **The IMS comprises rules (or conventions), mechanisms, and supporting institutions.**

- *Rules and conventions* govern arrangements between countries in four core respects: (a) exchange rates and exchange arrangements; (b) payments and transfers for current international transactions; (c) international capital movements; and (d) the holding of international reserves and official arrangements through which countries have access to liquidity (the so-called Global Financial Safety-Net (GFSN)).
- To complement this, the system provides *mechanisms* to allow for effective and timely balance of payments adjustment to avoid the build-up of large and persistent global imbalances, or to help maintain or restore stability when faced with shocks, through access to the GFSN.
- Robust *institutions*—some more formal than others—are essential to ensure the rules and mechanisms are enforced, operate effectively, and remain relevant.

6. **The IMS can be considered to function well when it inhibits the build-up of large stock or flow imbalances.** An effective system should be conducive to the efficient allocation of resources among countries (including by supporting current account deficits that are welfare enhancing), and the smooth and sustainable operation of international financial markets. In this sense, the system should ideally discourage the build-up of undesirable external imbalances, such as persistent significant current account imbalances, an unstable system of exchange rates (including foreign exchange rate misalignments), unsustainable capital flows, large external balance-sheet mismatches, the excessive build-up or depletion of international reserves or imbalances arising from excessive or insufficient global liquidity.

7. **The stability of the IMS has a close two-way relationship with the broader concept of global economic and financial stability.**[3] The effective operation of the IMS is part of, and thus a condition for, global economic and financial stability. Conversely, global economic and financial instability—even when the root causes do not originate within the IMS—typically impinges on the effective operation of the IMS.[4] While the international *monetary* system is distinct from the international *financial* system, developments in the financial system (particularly given its increased size and complexity) have a significant bearing on global economic and financial stability.[5] This, in

[3] See IMF (2012a).

[4] Global economic and financial instability may arise due to factors that could be: (i) related to the elements within the IMS (e.g., disorderly exchange rate adjustments, excessively volatile capital flows, etc.); (ii) other economic and financial factors outside the IMS (e.g., regulatory changes in a globally systemic financial center, commodity price shocks, interest rate shocks, sovereign debt defaults, collapse of a global systemically-important financial institution); and (iii) non economic or financial factors (e.g., wars, natural disasters).

[5] See IMF (2010a and 2010b).

turn, has the potential to impact the effective operation of the IMS, including the stability of the system of exchange rates. Both global economic and financial stability, and the effective operation of the IMS may be affected by, among other factors, an individual country's domestic and balance of payments stability, economic and financial interconnections among economies, and potential spillovers from countries' economic and financial policies through the balance of payments and other channels.

8. **To function effectively, the IMS would likely embody several core characteristics.** To facilitate the exchange of goods, services, and capital among countries, and sustain sound economic growth, the system should:

- Be underpinned by effective surveillance of individual countries, as well as the interconnections among them and the potential for spillovers, to help mitigate risk and ensure sustainable global macroeconomic and financial balances;
- Provide a basis for countries to effectively mitigate risks via rules and conventions governing current and capital account transactions, as well as borrowing, hedging or other risk-sharing instruments to help manage balance sheet risks (for instance, to reduce the risk of currency mismatches or the impact of economic downturns);
- Ensure the provision of adequate global liquidity to support countries that face temporary liquidity constraints; and
- Provide robust resolution mechanisms with clear ex ante rules to help countries address imbalances, including for dealing with overly indebted sovereigns.

## B. The Role of the Fund and Other Stakeholders in the System

9. **There are different entities responsible for the functioning of the system**. In this regard, Mundell defines a monetary system as being "an aggregation of diverse entities united by regular interaction according to some form of control."[6] Countries are the agents responsible for implementing economic policies adhering to the rules and conventions of the system, or to avail themselves to mechanisms for adjustment. The institutions within the system are a vehicle for interaction or collaboration, among countries and each other.

10. **The Fund is recognized as being the primary global institution with a central role in the system.** The Fund's *Articles of Agreement* provide the basis for its role in, and oversight of, the system to ensure its effective operation. In this regard, the overarching goal of the Fund is to promote international monetary cooperation through "consultation and collaboration on international monetary problems" (Article I). The responsibility to oversee the entire system is complemented by oversight, or surveillance of member countries' compliance with their obligations, including official arrangements relating to the balance of payments—exchange rates, reserves, and

[6] See Mundell (1997).

regulation of current payments and capital flows.[7] The Fund also plays a direct role in the system, providing financial support for adjustment in balance of payments disequilibria, and by allocating SDRs to supplement reserve assets.

11. **In parallel, other institutions are critical for the effective functioning of the IMS**. For instance, the World Trade Organization focuses on the regulation of international trade. The Bank for International Settlements (BIS), aims to foster international monetary and financial stability, acting as a forum for "cooperation among central banks and the financial community". The Financial Stability Board (FSB) focuses on promoting international financial stability. And the World Bank's overarching goal is poverty reduction through inclusive and sustainable globalization.

## C. The IMS Adapting to Change

12. **The *nature* of the system must evolve with the global economic and financial landscape**. Changes in the geographic distribution of economic power, the global integration of goods and asset markets, the evolution and development of financial markets, as well as tensions between domestic policies and the stability of the system, all have the potential to influence the shape of the system and its functioning.

13. **Indeed, in the past, landmark structural shifts in the global economy, and associated instability, have typically catalyzed fundamental changes of the IMS**. These periods have generally been marked by a confluence of structural shifts and cyclical events that saw rising tensions between domestically-driven policies and those more likely to support a well-functioning system (see Table 1). When tensions bec*ame suffic*iently large, the desire *in practice* to achieve domestic policy goals tended to come at the expense of countries' *in principle* commitment to the overall system. This was evident in the period preceding the collapse of the Gold Standard (1819–1914) and the instability of the Gold Exchange Standard (1925–31). This turbulence, in turn, spurred unprecedented international cooperation that gave rise to the Bretton Woods system and the Fund as a permanent coordinating institution. A similar pattern emerged toward the end of the Bretton Woods system (1944–73), with strains between expansionary domestic policies in the United States and the reserve currency status of the dollar.

[7] Article IV Section 1 establishes obligations on the conduct of members' policies that aim, inter alia, to limit excessive exchange rate volatility. With respect to capital flows, with the introduction of Article IV at the time of the Second Amendment, the Fund adopted policies recognizing that the right of members to regulate capital flows under Article VI, Section 3 was qualified by members' newly established obligations under Article IV, Section 1 relating to the stability of the system of exchange rates (see IMF, 2012b). The right is further limited by Article VIII, Section 2(a), which prohibits members, without Fund approval, from imposing restrictions on the making of payments and transfers for current international transactions, which, as defined under the Articles, includes some transactions capital in nature. Article VI, Section 1 also permits the Fund to "request a member to exercise [capital] controls" to prevent the use of the Fund's "general resources to meet a large or sustained outflow of capital." A further discussion of these issues can be found in IMF, 2010a.

## Table 1. Historical Overview of the International Monetary System

| | Classic Gold Standard (1819-1914)<br>Gold Exchange Standard (1925-31) | Bretton Woods System<br>(1944-73) | Post-Bretton Woods Period<br>(1973 onwards) |
|---|---|---|---|
| **System Features** | | | |
| ***Rules*** | | | |
| Exchange Rate | Parity between each country's currency and gold | USD pegged to gold and other currencies pegged to USD<br>Exchange rates adjustable if "fundamental disequilibrium" | Different exchange rate regimes; increased prevalence of both flexible exchange rates and currency unions |
| Capital Controls | No capital account restrictions | Capital controls | Regulations on capital account openness differ across countries |
| Trade | Liberal trade policies | Free trade promoted (e.g., GATT) | Mixed trade policies |
| Reserve Asset | Gold as reserve asset | USD as reserve currency | Market determined, USD as predominant reserve currency |
| ***Institutions*** | Bank of England under Classic Gold Standard; No central institution under Gold Exchange Standard | IMF as central institution | IMF remains as central institution<br>Emergence of international fora (G7/20) and regional financing arrangements<br>Financial Stability Forum/Financial Stability Board |
| ***Mechanisms*** | | | |
| External vs. Internal Policy Priorities | Domestic policy goals subordinated to external stability | More domestic policy autonomy but attempt to contain exchange rate volatility and to discipline monetary policy | Focus on domestic policy, with countries choosing their preferred monetary regime |
| Liquidity | Global liquidity determined by stock of gold | Global liquidity determined by stock of gold and US BoP deficits<br>SDRs created (1969); first SDR allocation | No regulation on supply of global liquidity<br>SDR allocations in 1979-81 and 2009 |
| Safety Net | None | IMF support to bridge temporary BoP difficulties; self-insurance | Evolution of IMF lending instruments, periodic efforts to boost Fund resources although not in line with economic and financial developments<br>Self-insurance; emergence of RFAs (e.g., ESM, CMIM) |
| **Structural Shifts** | Shift of economic power to the US<br>First wave of globalization<br>Democratization; unionization; growing social spending | Rapid expansion of Europe, Japan and many developing countries leading to increased demand for reserves, surpluses against the US and overvalued USD (Triffin Dilemma)<br>Trade liberalization/Rapid growth of trade volumes<br>Gradual relaxation of capital controls | Rise of EMs, including China<br>Dissolution of the Soviet Union<br>Globalization and financial integration<br>Financial deregulation<br>Dramatic escalation of economic and financial interconnectedness |
| **Cyclical Stresses on the System** | WWI spending and associated widespread inflation<br>Beggar-thy-neighbor policies (trade barriers, competitive devaluations)<br>Soaring interwar unemployment<br>Great Depression | US spending due to Vietnam war and President Johnson's "Great Society" | Global imbalances; volatility of capital flows<br>Competitive devaluations<br>Increasingly large financial crises (EMEs, Global Financial Crisis, Euro Area Crisis) |
| **Breaking point** | Confluence of structural and cyclical factors meant that in practice, domestic policy concerns took primacy over external stability, undermining the credibility of the Gold Standard | US expansionary fiscal and monetary policies undermined credibility of system; US forced to terminate convertibility in 1971 | |

14. **Today's IMS has considerable strengths compared to its predecessors, but the crisis also revealed weaknesses**. The system has underpinned greater international trade and global financial integration, higher investment in many countries than might have been financed domestically, broad-based income growth resulting in a large decline in world poverty, but also rising inequality. Many of the characteristics evident today—options on the choice of exchange rate regime, a *de facto* central role of major reserve currencies, in particular the US dollar in international finance, the increased openness of trade and capital flows—offer more flexibility than the binding rules of past systems, ensuring that the IMS was more malleable in response to the crisis. At the same time, however, the system did not prevent tensions building between domestic policies and global stability in the wake of sustained structural shifts in the world economy.

15. **In 2011, Fund staff identified four main weaknesses in the system**: (i) inadequate global adjustment mechanisms, (ii) no global oversight framework for cross-border capital flows, (iii) lack of systematic liquidity provision mechanisms, and (iv) a number of structural challenges in the supply of safe assets. Staff concluded that these weaknesses allowed persistent current account imbalances and exchange rate misalignment, excessive volatility in capital flows and exchange rates, and a very large build-up of international reserves. Accordingly, staff identified possible reforms focused on: (i) strengthening policy collaboration, (ii) monitoring and management of capital flows, (iii) enhancing global financial safety nets, and (iv) a structural strengthening of the IMS through financial deepening and reserve asset diversification.

16. **Accordingly, the Fund accelerated efforts to adapt to changing needs of the IMS**. A goal of the Fund's reforms has been to take better account of the extent of economic and financial interconnections in the world, and to draw more attention to the global implications of domestic policies. These reform efforts have focused on three broad areas:

- By overhauling its surveillance and policy tools, the Fund has sought to support the effective operation of the rules and mechanisms of the IMS to help promote stability. Importantly, this went beyond institutional changes, with reforms designed to deliver, in practice, more candid and analytically robust surveillance. In particular:
    - The 2012 Integrated Surveillance Decision (ISD) aims to better integrate bilateral and multilateral surveillance and provides for more systematic coverage of spillovers from member countries' domestic economic and financial policies onto the global economy. The introduction of External Stability and Spillover reports provide a multilaterally consistent assessment of the largest members' external positions and a deeper analysis of key policy-induced or policy-relevant spillovers.
    - The Fund deepened its risk analysis through a semi-annual Early Warning Exercise (focused on tail risks), Vulnerability Exercises for most countries, and by incorporating risk assessment matrices that identify key external and domestic risks in Article IV reports.
    - The 2012 Financial Surveillance Strategy provided a basis to enhance the Fund's financial system analysis, including strengthening macrofinancial analysis in Article IV consultations. Also, Financial Stability Assessments now place increased emphasis on spillovers, economies

with systemically important financial centers (for which assessments are now mandatory), and crisis resolution.

- The Fund adopted an Institutional View on the liberalization and management of capital flows (hereafter the Institutional View), refined its analysis and advice on macroprudential policies, and developed a metric to assess reserve adequacy for self-insurance purposes.

While good progress has been made in these areas, many are inherently multi-year endeavors and their effectiveness—and whether additional reforms are needed—is still to be assessed.

- Reforms have also been geared toward enhancing the Fund's role in the GFSN, by increasing the availability of, and access to, liquidity in the system, while ensuring sufficient safeguards are in place.
  - Fundamental changes to the Fund's lending framework have proved effective in providing new forms of financial support, including higher and more frontloaded amounts. This was achieved by doubling access limits, streamlining conditionality, and introducing new instruments—the Flexible Credit Line (FCL) and Precautionary and Liquidity Line (PLL)—with higher and more rapidly available access. The FCL has no ex post conditionality, while conditionality under the PLL focuses on the limited remaining vulnerabilities of the member country.[8] The lending architecture for low-income countries (LIC) was revamped in 2010, with new facilities tailored to their diverse needs and a doubling of access limits.[9] A strategy to make the Fund's LIC lending capacity self-sustaining was adopted in 2012.[10]
  - The Fund also moved quickly to boost its lending capacity, at first temporarily, through expanding the New Arrangement to Borrow (NAB), along with a series of temporary bilateral borrowing agreements. This came at a critical moment as emerging market spreads were widening, but then reversed following news of efforts to reinforce Fund resources. Subsequently, the recent doubling of quotas under the 14th General Review of Quotas permanently increased Fund resources, replacing part of the NAB expansion.
  - In 2009, new SDR allocations of SDR 182.6 billion injected additional liquidity to the system, supplementing countries' official reserves. This largely represented an increase in reserves, particularly for low-income countries. Moreover, to enhance the attractiveness of the SDR as a reserve asset, the Executive Board decided in late 2015 to expand the currencies in the SDR basket and include the renminbi, with effect from October 1, 2016.
- In 2010, the Fund approved and the membership has now ratified a package of reforms to better align the institution's governance with today's global economy. This included a major

[8] The PLL was created in 2011 to replace the Precautionary Credit Line (created in 2010). The main change was the addition of a six-month liquidity window and permitting approval of a PLL arrangement for actual and potential balance of payments needs.

[9] Access limits were raised again in 2015, by 50 percent, across the concessional facilities for all PRGT-eligible countries. See IMF (2015a). Cumulative access limits for the Rapid Credit Facility were also raised in 2013.

[10] IMF (2012b).

realignment of quota shares (in particular, a more than 6 percentage point shift to dynamic EMDCs) and a move to a more representative, all-elected Executive Board, as well as the doubling of quotas. Nevertheless, the late entry into force of this package (in early 2016) has delayed further efforts to strengthen the Fund's representativeness that were envisaged in the context of the 15th General Review of Quotas.

17. **The post-crisis period also witnessed broader efforts to strengthen regional and bilateral cooperation, although not all have been used to full effect**. Having emerged after the Asian Financial Crisis in 1999, the G20 provided a ready-made forum for intensified policy cooperation when the global financial crisis hit. This renewed cooperative spirit saw the introduction of an annual Leaders' Summit since November 2008, as well as the adoption of the Mutual Assessment Process (MAP), with technical support from the Fund, as a vehicle to discuss the consistency of individual countries' policies with the G20's shared growth goals.[11] The Financial Stability Board was established in 2009 as a successor of the Financial Stability Forum to promote international financial stability by coordinating national financial authorities and international standard setting bodies as they work towards strong regulatory, supervisory and other financial sector policies.[12] Central banks entered into bilateral currency swap agreements to improve liquidity conditions in the aftermath of the global financial crisis. There have also been moves to create new or enhance existing regional financing arrangements, such as the European Stability Mechanism or the Chiang Mai Initiative Multilateralization, and more recently the Asian Infrastructure Investment Bank, and the BRICs Contingent Reserve Arrangement.

# CHANGING CONTOURS OF THE GLOBAL ECONOMY

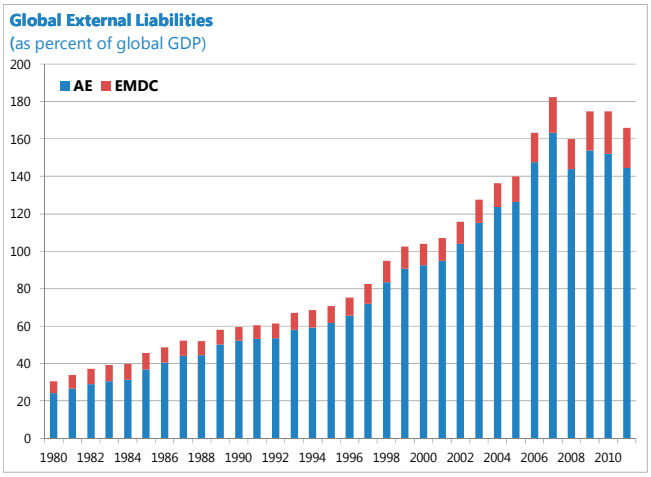
18. **Major structural shifts continue to transform the global economy, with implications for the functioning of the IMS.** The center of global economic 'gravity' continues to shift, as EMDCs integrate further into the global economy. Financial interconnectedness has also become more pronounced, with global financial cycles growing in amplitude and duration, and nonbank financial institutions assuming a larger share of financial intermediation. These shifts have important implications for the effective functioning of the IMS (see next Section). The prospect of monetary policy normalization coming in succession over the next few years from the major reserve currency issuing central banks, along with further structural shifts—China's rebalancing and the end of the commodity supercycle—will present further challenges to the system. Moreover, with the overarching goal of the IMS to promote sustained economic growth and prosperity, it needs to support an environment in which EMDCs can continue to converge safely to AE income levels.

## A. Towards a Multipolar World

[11] See IMF factsheet on *The G20 Mutual Assessment Process (MAP)*.

[12] The FSB fosters a level playing field by encouraging coherent implementation of these policies across sectors and jurisdictions.

19. **Sustained growth and the rapid trade integration of EMDCs are creating a more multi-polar global economy.** Since 2000, EMDCs' share of world GDP has increased by more than two-thirds, reaching 40 percent in 2014 in market prices, dominated by the BRICS.[13] EMDCs have integrated rapidly into global trade, representing 38 percent of global trade in 2014 (up by 16 percentage points since 2000), with the BRICs accounting for almost half of that. China, in particular, now represents 13 percent of global GDP (at market prices) and 10 percent of world trade.




20. **Financial integration and deepening, however, has proceeded at a slower pace in most EMDCs.** Cross-border financial integration—which can facilitate risk-sharing, while also exposing countries to external shocks—is proceeding rapidly, albeit more slowly by EMDCs than AEs.[14] But while the financial deepening in EMDCs has progressed at a steady pace, the gap with AEs has widened between the mid-1990s and early 2000s, reflecting particularly rapid deepening in AEs.[15] Although the gap began to close as AE financial systems deleveraged in the wake of the crisis, financial depth in EMDCs remains much lower than in AEs. If financial integration gets ahead of deepening and regulatory improvements, it could be a source of financial instability and capital flow volatility. In contrast, financial deepening is generally seen as having a positive effect on growth and stability, and is critical for safe financial integration.[16] Nevertheless, when financial development reaches high levels —i.e., in instances where there is "too much finance"— the costs (i.e., lower growth and increased volatility) can outweigh the benefits.[17]

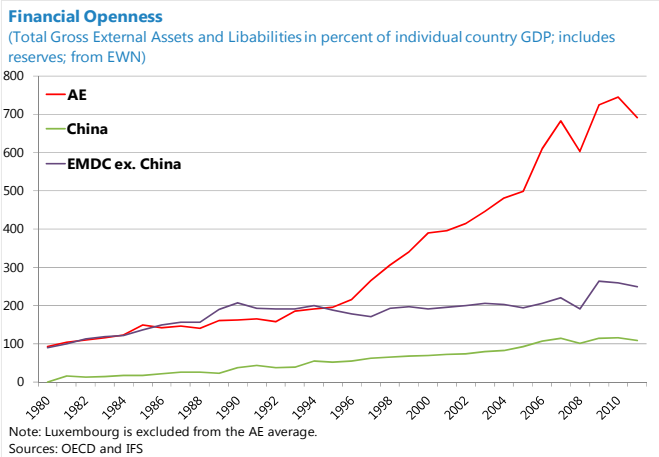
[13] EMDCs' real GDP grew on average at 5.7 percent per year during 2007–14, compared to 1.0 percent for advanced economies.

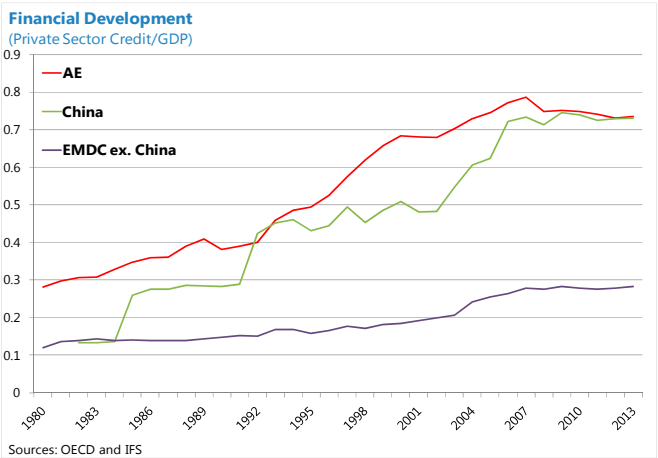
[14] Although there is no universally agreed definition of financial integration, this term typically encompasses financial openness, free cross-border movement of capital and integration of financial services. As is common in the literature and policy work, it is proxied in this paper by measures of cross-border liabilities based on BIS data.

[15] Financial deepening is defined as the progressive increase in the size and liquidity of financial markets. It is one element of the broader concept of financial development, which also encompasses access (ability of individuals to access financial services) and efficiency (ability of institutions to provide financial services at low cost and with sustainable revenues, and the level of activity of capital markets). See Sahay et al. (2015).

[16] However, the pace of financial development matters—overly rapid or poorly supervised development can lead to excessive risk-taking and leverage.

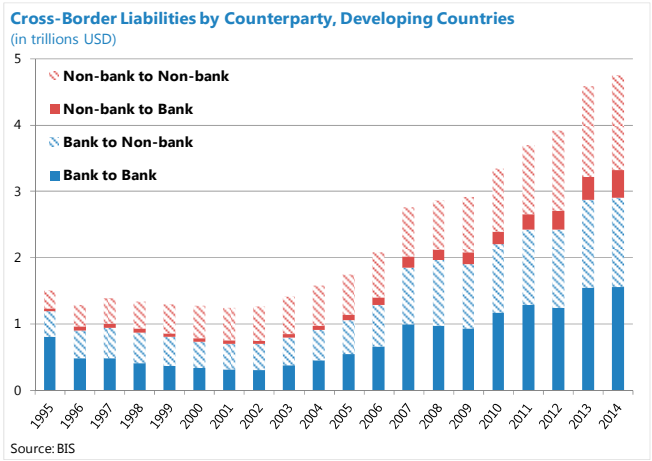
[17] See Sahay et al. (2015).

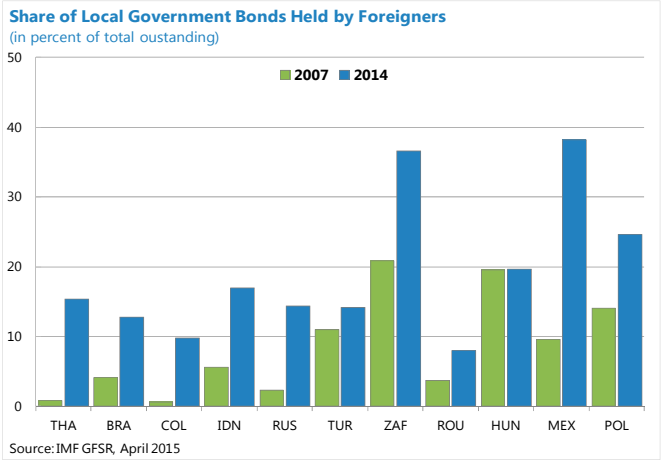



21. **Despite their slower financial integration, EMDCs' cross-border liabilities have tripled over the past decade.** This is in part due to the large flows into emerging market debt and other capital markets, with nonbanks playing an increasingly important role.[18] At the same time, there has been a pick-up in flows to local currency bond markets, with many EMDCs seeing double-digit increases since the crisis in the share of domestic government bonds held by foreigners.

22. **A large share of cross-border activity continues to be denominated in dollars.**[19] The dollar is the principal currency for trade settlement, cross-border payment systems, cross-border lending and reserve accumulation, reflecting the size, liquidity, and integrity of US financial markets, followed by the euro.



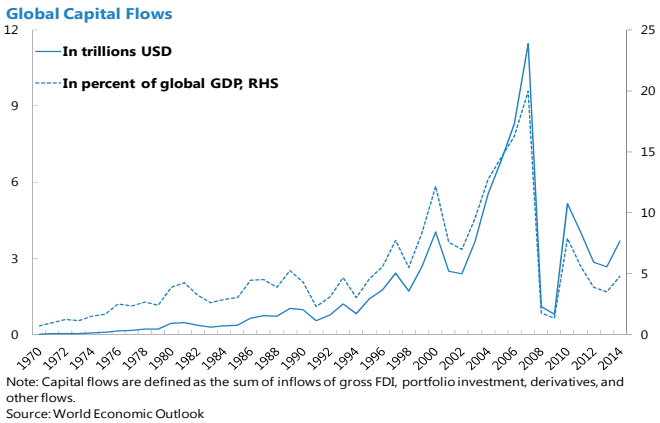



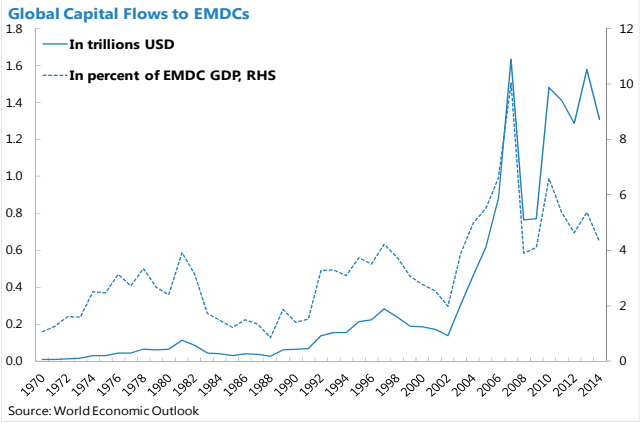

[18] Nonbanks are broadly defined as financial institutions engaged in credit intermediation outside the conventional banking system. The nonbank financial system includes a diverse group of entities such as insurance companies, finance companies, government-sponsored enterprises, hedge funds, security brokers and dealers, issuers of asset-backed securities, mutual funds, and money market funds. See discussion on nonbanks in IMF (2014a). For BIS data, see definitions at http://www.bis.org/statistics/index.htm.

[19] There are now globally US$20 trillion foreign currency denominated bank liabilities and outstanding US dollar denominated debt issued by entities outside of the US totals about US$7 trillion.

## B. Financial Globalization and Financial Cycles

23. **Financial globalization has led to a dramatic increase in global capital flows and external liabilities over the past 30-40 years.**[20] In the 1970s, global capital flows—measured as the sum of gross capital inflows across all countries—averaged the equivalent of 1.7 percent of global GDP per year (or US$109 billion). By the 2000s, this average reached more than 10 percent of global GDP, peaking at 20 percent on the eve of the crisis in 2007 ($11.4 trillion). This reflects a gradual trend towards the liberalization of capital flows, given the potential benefits when the right conditions are in place.[21] Capital flows have exhibited periodic surges and reversals over the subsequent period: they declined sharply in 2007–08, then recovered somewhat, and have since oscillated. Although the bulk of capital flows is generally between AEs, much of the rebound in flows translated into inflows in EMDCs, and by 2014 had approached pre-crisis levels in dollar terms. This reflected in part their continued integration and robust growth, as well as low or negative real interest rates in AEs. As a result, global external liabilities have grown from 30 percent of global GDP ($3½ trillion) in 1980 to 166 percent ($120 trillion) in 2011.



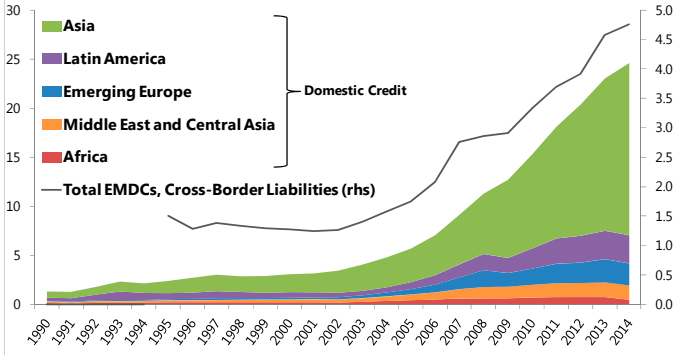




[20] Global capital flows increased more than 25-fold between 1980 and 2007, compared to an eight-fold expansion in global trade.

[21] Under the right conditions, particularly when countries have achieved certain levels of financial and institutional development and have sound prudential frameworks, capital flow liberalization is seen as delivering a number of macroeconomic benefits. These include facilitating consumption smoothing and portfolio diversification, and microeconomic benefits such as supporting efficient resource allocation and promoting the competitiveness of the domestic financial sector, although the existing empirical evidence is mixed. However, full capital account liberalization is not necessarily the goal for all countries at all times. See IMF (2012c).

24. **Increased financial globalization has also provided an impetus to cross-border credit—much of it in U.S. dollars—and domestic lending**. The expansion of cross-border liabilities to EMDCs was accompanied by a significant rise in domestic credit over the past decade, fueling asset price booms in numerous countries.[22] The rise in cross-border liabilities and domestic credit was particularly significant in Asia.

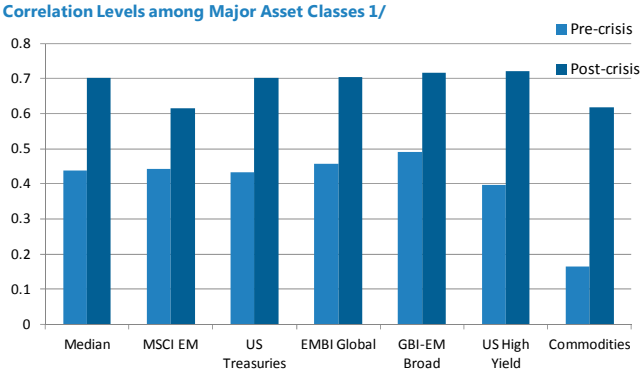
**EMDCs: Domestic Credit to Private Sector by Region and Total Cross-border Liabilities**
(in trillions of USD)




Sources: IFS, WDI and BIS.
Note: Cross-border liabilities include all categories (Bank to Bank, Bank to Nonbank, Nonbank to Bank, and Nonbank to Nonbank.) Cross-border liability data is only available from 1995.

25. **At the same time, countries' financial cycles appears to have synchronized**.[23] The length and amplitude of the US financial cycle—proxied by the path of the credit to GDP ratio—have increased markedly since the mid-1980s, partly reflecting financial deregulation (Box 1). While the cycles of some countries (such as the UK and Australia) have been highly correlated with the US cycle for decades, this pattern has extended to most other AEs since the crisis,[24] with correlation coefficients exceeding 0.9 for many countries. Moreover, among EMDCs, the domestic financial cycles in India and South Africa have become increasingly correlated with the US cycle. In contrast, China's financial cycle remains disconnected. The increased global synchronization is seen not only in credit gaps but also the rise in the correlations of a wide range of financial assets since the crisis.[25]

**Correlation Levels among Major Asset Classes 1/**




Source: GFSR, April 2015.
1/ Measured as the median of the absolute values of pair-wise correlations over a 60-day window between the daily Sharpe ratios of the asset classes. The pre-crisis period is January 1 1997 to end-June 2007, and the post-crisis period is January 1st 2010 to end-December 2014.

[22] See Avdjiev, Chui and Shin (2014).

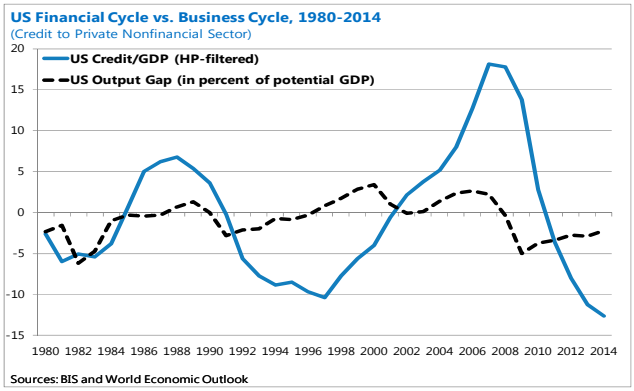
[23] A rising global correlation is observed in most major class assets (Rey, 2015). There is a marked increase in these correlations, from a median correlation coefficient just above 0.4 to 0.7.

[24] An exception is Japan, where credit growth has been driven primarily by domestic conditions, both before and after the crisis.

[25] See IMF (2015d) and Rey (2015).

## Box 1. Financial Cycles

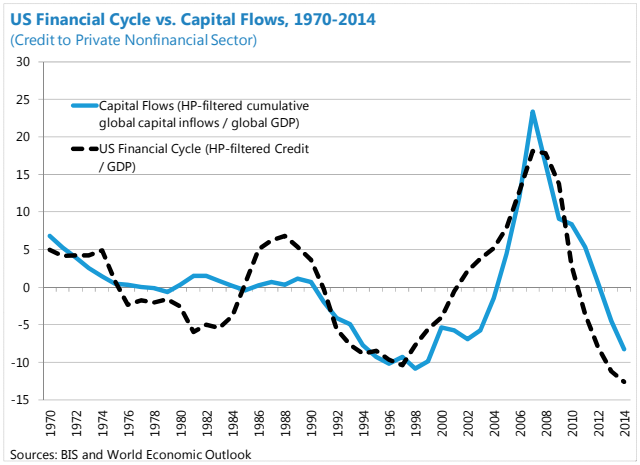
**Over time, the evolution of financial conditions—such as the growth of credit, leverage and asset prices—appears to have become more cyclical and more pronounced.** As documented by Reinhart and Rogoff (2009), such financial conditions tend to move in lockstep. The provision of credit by banks and nonbanks is closely tied to the availability of funding, which generally comes in the form of debt (either from traditional sources, such as retail deposits, or market-based sources), and thus drives up leverage. This growth of credit and leverage often propels real estate, equity and other asset prices to unsustainable levels, setting the stage for an abrupt decline. Even though there is no consensus that there is a well-behaved concept of a "financial cycle", increasing attempts have been made since the global financial crisis to quantify the concept (Drehmann, Borio and Tsatsaronis, 2012).




**The financial cycle is viewed by many as having a longer duration and amplitude than the business cycle**. A common way to represent it is through credit gaps, which can be derived by filtering the private sector credit-to-GDP ratio.[1/] An unusually rapid expansion of credit-to-GDP is one of the best predictors of financial turbulence (Drehmann, Borio, and Tsatsaronis, 2014). Applying this approach to the United States over a long period (1970-2014) reveals that the financial cycle has become more extended than the business cycle, and its peaks and troughs have become larger over the past two decades. Financial deregulation since the 1980s, and the accompanying rapid growth of the financial services industry, has likely contributed to these developments.

[1/] This is calculated by applying a Hodrick-Prescott filter with a smoothing parameter (lambda) of 400,000 (Drehmann, Borio and Tsatsaronis, 2012), which is higher than the smoothing parameter usually applied in business cycle analysis, reflecting the long duration of financial cycles.

26. **Since around 1990, cyclical surges and troughs of capital flows seem to have moved in tandem with the financial cycle, mirroring its rising amplitude over the past decade**.[26] In the 1970s and 1980s, the relationship between the US financial cycle and the cycle of global capital inflows was weak. Deregulation and financial globalization have likely contributed to the increasing synchronization of credit growth and capital flows since then, with banks playing a key role, in part due to collateral effects.[27] As the financial cycle ratcheted up, ample liquidity enabled financial institutions to expand their balance sheets both within and across borders. Both cycles peaked in the run-up to the crisis and have since turned. The declining pace of

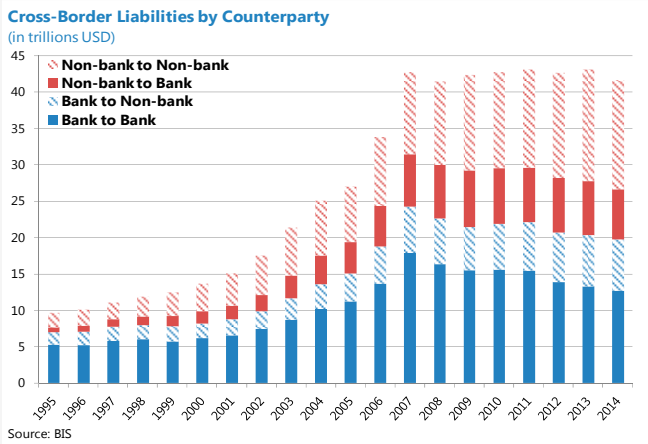



[26] See Bruno and Shin (2014) and Rey (2015).

[27] Fluctuations in collateral requirements influence banks' capacity to borrow, and therefore have a significant effect on financial cycles. See Bruno and Shin (2014).

global capital inflows compared to the pre-crisis period is largely driven by the slowdown of flows among AEs.

27. **With financial globalization and the evolution of regulation**, **nonbanks have grown in importance—in AEs as well as EMDCs—particularly in the provision of debt finance.** Before the crisis, the banking sector intermediated well over half of cross-border liabilities, yet by 2014 nonbanks were an equal—if not larger—player. As nonbanks do not take deposits, they are subject to different regulation from traditional banks. They include a diverse range of institutions, such as insurance companies, traditional asset managers, money market funds or hedge funds, with differing risk features depending on their leverage, dependence on short-term funding, or holdings of illiquid assets. The shift of private borrowing from banks to less regulated nonbanks may generate new risks in the system (see Section IV,B).




# AN UPDATED ASSESSMENT OF THE IMS

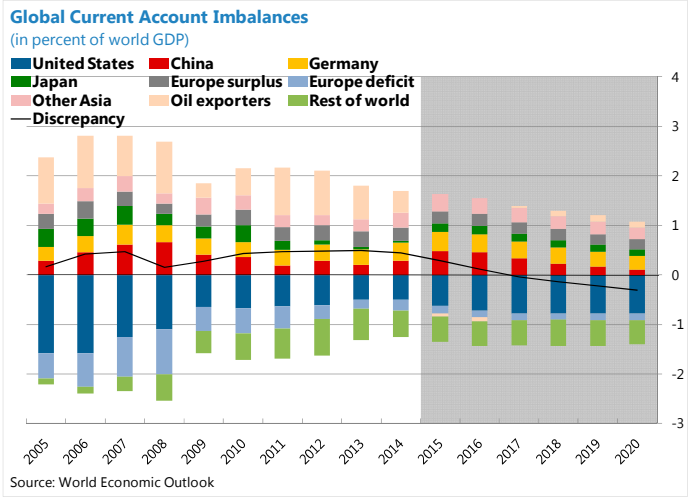
28. **The confluence of these structural shifts raises tensions and risks.** While global current account imbalances have declined, this was partly due to compressed demand in many deficit countries, rather than adjustments in both deficit and surplus countries. With the *lack of global oversight of capital flows,* periodic episodes of high capital flow volatility appear to have become a feature of the new global landscape, and they can thus contribute to financial pressures and balance-sheet mismatches, particularly in EMDCs, where generally financial markets are less developed. The *de facto central role of one or two major reserve currencies* in the global financial system means that policy and financial developments can have significant spillover effects on other countries. This constrains the domestic policy choices in countries with open economies and less developed financial markets, particularly of those with fixed *exchange rate regimes*.[28] Meanwhile, the build-up of financial risks, particularly in nonbank financial institutions, has highlighted *gaps in the oversight of the global financial system*. And finally, during periods of stress, liquidity shocks could lead to systemic risks and the more *fragmented GFSN* could make it difficult to support countries.

[28] Recent research by Rey (2015), Obstfeld (2015) and others suggest that exchange rate flexibility may not fully insulate countries' monetary policies from global financial shocks, especially when asset prices are highly correlated across borders.

# A. Weak Global Adjustment Mechanisms

## Evolving Global Imbalances

29. **Global current account imbalances have narrowed since the crisis and have become more dispersed.** Since peaking at just over 5 percent of global GDP in 2006–08, imbalances narrowed, and remained around 3 percent of global GDP in 2014. Prior to the crisis these imbalances were concentrated in a few economies—US, China, oil exporters and some euro area economies, particularly Germany.[29]




30. **However, global current account imbalances continue to exceed desirable levels, and the risk remains that more significant imbalances could re-emerge**. While individual countries' current accounts should not necessarily be balanced,[30] Fund estimates suggest that the sum of imbalances for the world's larger economies continues to exceed levels implied by fundamentals and desired policies.[31] The reduced concentration of imbalances is likely to represent a decline in the risk of a sudden reversal or disorderly unwinding—particularly where imbalances reflected policy and other domestic distortions. However, it raises new concerns about the build-up of imbalances in a number of smaller countries. EMDCs would be particularly vulnerable, given potential financing constraints. At the same time, however, the risk of a re-emergence of more significant current account imbalances persists, especially if potential output were to slow in EMDCs.[32]

31. **The *nature of adjustment* may also have contributed to a rise in domestic imbalances in many deficit countries.** The post-crisis adjustment was largely achieved through a mix of demand compression in deficit countries (a legacy of the crisis and largely due to deleveraging pressures in AEs) and the faster recovery immediately after the crisis of EMDCs and commodity

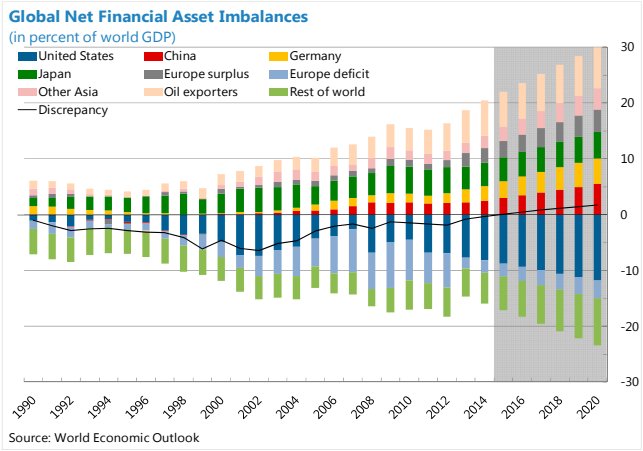
[29] The sum of imbalances in the top 10 deficit and surplus economies as a percentage of world GDP, has fallen by 50 and 25 percent, respectively.

[30] Current account imbalances can be desirable to support trade and facilitate an optimal allocation of global resources. Imbalances are unwarranted when they result from undesirable policies or from policies that are insufficient to address structural economic deficiencies.

[31] The sum of actual current account imbalances for larger countries exceeded the level implied by fundamentals and desired policies by around 1.2 percent of global GDP in 2014. See "2015 External Sector Report," IMF (2015b).

[32] The recent slowdown in EMDCs could result in a slowdown in potential output relative to AEs, owing to their dependence on trade and investment linkages. Slower potential output growth in EMDCs may, in turn, raise savings rates in these countries as the private sector adapts to slower income growth. As in the pre-crisis period, current account imbalances could re-emerge if EMDCs channel their excess saving to AEs.

exporters. The lack of demand adjustment in many surplus countries tilted the burden of adjustment to deficit countries and was contractionary, especially for countries that are at the zero lower bound. This decline in demand and output increased domestic imbalances. Moreover, an apparent corresponding decrease in potential output implies a more permanent growth slowdown.[33]




32. **Real exchange rate movements appear to have played a limited role in the adjustment process.** A number of countries have experienced limited or perverse movements in their real effective exchange rates (REER) during the post-crisis period. Where central banks have abstained from intervening and real exchange rates have moved in the expected direction, current account adjustments have been modest (see Box 2). This runs counter to past experience that real exchange rate movements deliver substantial current account adjustment, and that floating exchange rate regimes—acting as shock absorbers—help support smooth adjustment.[34] The reasons for this outcome are not fully understood, but could include the global nature of the shock, with safe haven effects going against the typical pattern of crisis-related flows during the crisis, the institutional factors that limited REER adjustment in the euro area, as well as a possible softening of the relationship between real exchange rates and trade flows in countries that are involved in global value chains and where production is less sensitive to relative price changes than is final demand.

33. **As such, the nature of adjustment appears to have contributed to the build-up of financial imbalances**. Low growth in deficit countries contributed to a widening of stock imbalances (net financial asset positions). The expansionary monetary policies of AE central banks countered chronically weak domestic demand and deflationary pressures in line with their inflation and/or employment mandates. Part of the liquidity created spilled abroad, and resulted in large capital inflows in EMDCs, reflecting also pull factors such as their rapid recovery from the crisis. Thus, central bank and private sector balance sheets have expanded, contributing to widening balance-sheet mismatches and boosting asset prices.[35]

[33] See IMF (2014b).

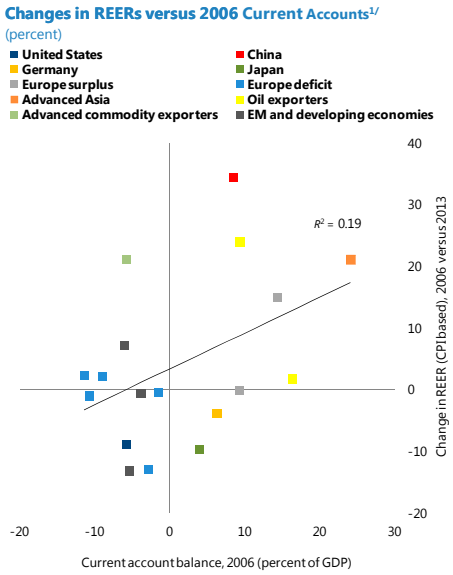
[34] Ghosh, Ostry and Tsangarides (2010) find that while pegged regimes provide a useful nominal anchor without compromising growth, floating regimes are associated with smoother external adjustment and lower vulnerability to financial crises.

[35] See IMF (2013a).

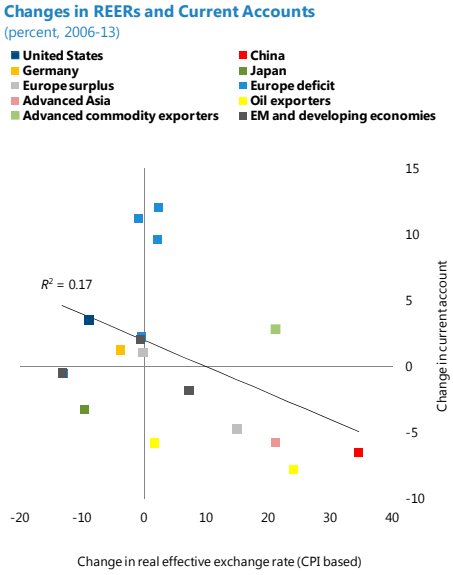
## Box 2. Exchange Rates and External Imbalances

**Large moves in exchange rates are generally associated with significant changes in CA balances**. For 1980-2014, the Fund estimated that a 10 percent depreciation of a country's REER led on average to a 1.5 percent increase in real net exports, although in some cases the impact occurred with a lag.[1/] This was the case when global imbalances emerged in the mid-1980s. The US dollar depreciated and the yen appreciated following the 1985 Plaza Accord, but trade volumes adjusted slowly. The US trade deficit and Japanese trade surplus did not materially decline until the early 1990s.

**Exchange rates appear to have played a more limited role in the adjustment in CA balances following the crisis**. Strong movements in aggregate demand, particularly investment, drove adjustment in CA balances.[2/ 3/] The relationship between CA imbalances and exchange rate movements has been weak, possibly also reflecting the global nature of the underlying shock. A number of countries experienced perverse movements in their REERs (see figure, left panel). Moreover, even in countries where real exchange rates have moved, current account adjustments have been modest (right panel). This pattern has continued in recent years, particularly for surplus countries: from 2011–14 China's current account surplus remained at about 1-2 percent of GDP despite a 16 percent real appreciation. Similarly, Germany's current account surplus rose from 6 to 7½ percent of GDP during this period, despite a stable REER, and Japan's current account surplus declined 1½ percent of GDP despite a 26 percent real depreciation.




1/ 2006 is the last full year before the onset of the crisis.
Source: World Economic Outlook




Source: World Economic Outlook

**A range of factors help explain the limited contribution of real exchange rates to the reduction in CA imbalances.** For China, growth of productivity has remained higher than major trading partners, partly offsetting REER appreciation. For the United States, a flight to quality in capital markets has put upward pressure on the REER, contrary to what would be expected given the current account deficit. For Japan, the earthquake disrupted exports and raised oil imports, partly offsetting significant REER depreciation. More broadly, the rise of global value chains appears to have also weakened the relationship between exchange rates and trade in some economies.[4/]

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1/ IMF (2015e).
2/ For example, US investment fell by 4 percent of GDP from 2006-2013, while Chinese investment increased 6 percent of GDP.
3/ Panel regressions indicate that aggregate demand explains about 30 percent of the reduction in global external imbalances, and the REER has had no impact. See IMF (2014b).
4/ See Ahmed, Appendino and Ruta (2015).

### Constrained Domestic Policy Choices

34. **Growing financial interconnectedness, the size of the U.S. economy and the central role of the dollar in the global financial system mean that U.S. monetary and financial conditions migrate more easily to the rest of the world**.[36] Shocks are transmitted—through interest rates, capital flows, and asset prices—with the potential to create challenges to economic and financial stability.[37] For instance, in open economies capital inflows can put significant appreciation pressure on exchange rates and increase financial sector risks, leading to financial and macroeconomic instability. In countries with fixed or heavily managed exchange rates, capital inflows may result in a build-up of foreign reserves, expansion in domestic liquidity, and pressure on domestic asset prices and credit growth. And recent research suggests that in economies with floating exchange rate regimes, exchange rate flexibility may not fully insulate countries' monetary policies from global financial shocks, especially when asset prices are highly correlated across borders.[38] Thus, even in countries with floating exchange rates, the rise in asset values has a procyclical effect on domestic borrowing and asset markets, and ignoring large exchange rate movements could be costly. [39,40] While such spillovers may be absorbed more easily when countries face common shocks, they can pose challenges for policymakers when countries are at different stages of the business cycle.

35. **In such an environment, the trade-off between macro stabilization and financial stability becomes more difficult**. First, in a world where monetary and financial conditions migrate more easily across countries, central banks in EMDCs and some smaller AEs have less ability to influence domestic interest rates (particularly long-term rates) independently of US yields. Second, while the exchange rate regime is central to the range of policy responses available, monetary policy is more constrained to respond to domestic concerns than it would be without imported financial conditions, in turn posing greater challenges for macroprudential management. For instance, it may be hard to address overheating pressures when an interest rate hike could attract additional capital inflows—especially when such flows have been important drivers of credit growth. Accordingly, the

[36] Monetary and financial conditions in the euro area can also have spillover effects, particularly on other countries in Europe, including through their impact on equity prices and risk aversion. See Fratzscher, Luca and Straub (2014) and Falagiarda, McQuade and Tirpák (2015).

[37] See Obstfeld 2015.

[38] Under the Mundell-Fleming model, countries with a floating exchange rate can pursue an independent monetary policy, although they would face constraints in the event of idiosyncratic shocks to the exchange rate.

[39] When exchange rate movements have the potential to start amplifying shocks, foreign exchange intervention within a broader policy package (including macroeconomic adjustment where necessary) can help counter the risk of disorderly market conditions, provided that reserves are adequate.

[40] See Rey (2015), Obstfeld (2015), Gertler and Karadi (2011) and Bruno and Shin (2013).

trade-off among multiple objectives becomes more difficult within the available domestic policy instruments.[41]

36. **Some countries have responded by introducing capital flow management measures (CFMs), although not all have been successful.** It has been argued that using CFMs might provide greater short-term insulation from international spillovers. Based on initial experience following the global crisis, some evidence suggests that inflow CFMs may have been more successful when focused on financial stability or changing the composition of capital flows, rather than when they seek to influence the volume of capital flows to reduce exchange market pressure.[42] In this context, the Fund's Institutional View states that when capital flows contribute to systemic financial risks, measures that are considered both CFMs and macroprudential measures can help to safeguard financial stability. More broadly, CFMs can be useful in supporting macroeconomic policy adjustment and safeguarding financial system stability in certain circumstances, such as when there is limited scope to adjust macroeconomic policies, at least in the short term; when it will take time for policy measures to deliver results; or when surges of inflows raise risk of financial instability. However, they can also impose costs[43] and there is still limited knowledge of which types of CFMs are most effective, when their benefits could outweigh their costs, and the challenges that might arise from cross-border coordination of CFMs (or the lack of it) among recipient countries, and between source and recipient countries, in the event of systemic shocks.[44]

37. **Against this backdrop, international cooperation to possibly alleviate these challenges has not been successful.** With the shifts in the nature and degree of integration and their implications on the IMS, effective cooperation becomes increasingly critical. At the same time, policies implemented by individual countries are often at arm's length from the end goal of the stability of the system as a whole. While there has been international cooperation during the global financial crisis, there is scope for more.

[41] Obstfeld (2015) argues that global interlinkages, and countries' tighter linkages to US monetary and financial conditions, have made the usual (trilemma) trade-offs much starker. Rey (2015) states that "The 'trilemma' morphs into a 'dilemma' – independent monetary policies are possible if and only if the capital account is managed, directly or indirectly, regardless of the exchange-rate regime."

[42] See Obstfeld (2011a), and Magud, Reinhart, and Rogoff (2011).

[43] For instance, CFMs can reduce discipline in financial markets and public finances, tighten financing constraints as they restrict the availability of foreign capital, and limit residents' options for diversifying their assets. CFMs can also be costly to monitor and enforce, promote rent-seeking behavior and corruption, and facilitate repression of the financial sector, impeding financial development and distorting the allocation of capital.

[44] See Ghosh, Qureshi, and Sugawara (2014).

## B. Regulatory Gaps

### Systemic risks from Capital Flows

38. **While the absence of *global oversight of capital flows* is a longstanding issue, financial globalization has exacerbated the associated risks to the IMS**.[45,46] Although cross-border capital flows enhance countries' access to financing and help deepen domestic capital markets, capital flows have been behind many crises over the past decades. With financial globalization, increasingly complex financial structures, rapid expansion of balance sheets, and high cross-border financial exposures, surges in capital inflows and outflows are exposing countries and the IMS to much greater risk of financial crises, as balance sheets magnify the effect of these flows, while shocks are transmitted more easily across countries.

39. **In particular, financial integration has led to a reconfiguration of the size and structure of global balance sheets.** Gross external asset and liability positions have significantly increased over the past two decades, and there has been a marked transformation in their composition. Cross-border borrowing—particularly by banks and corporates—has become a more important source of funding in EMDCs, and has become associated with increases in domestic credit.[47] This possibly contributed to the build-up of balance sheet mismatches. Activity has also migrated into the nonbanking sectors in both AEs and EMDCs.

40. **This transformation of balance sheets has added to concerns about the risk of destabilizing capital outflows.** Synchronized financial cycles mean that cross-border shocks can have significant implications for mismatched balance-sheets and financial stability. The financial crisis has illustrated the extent to which such shocks can be destabilizing in AEs. EMDCs with less well developed financial sectors, especially those with pegged exchange rates or with very open markets, are even more exposed to shifts in global financial market sentiment, and sudden stops in capital flows.

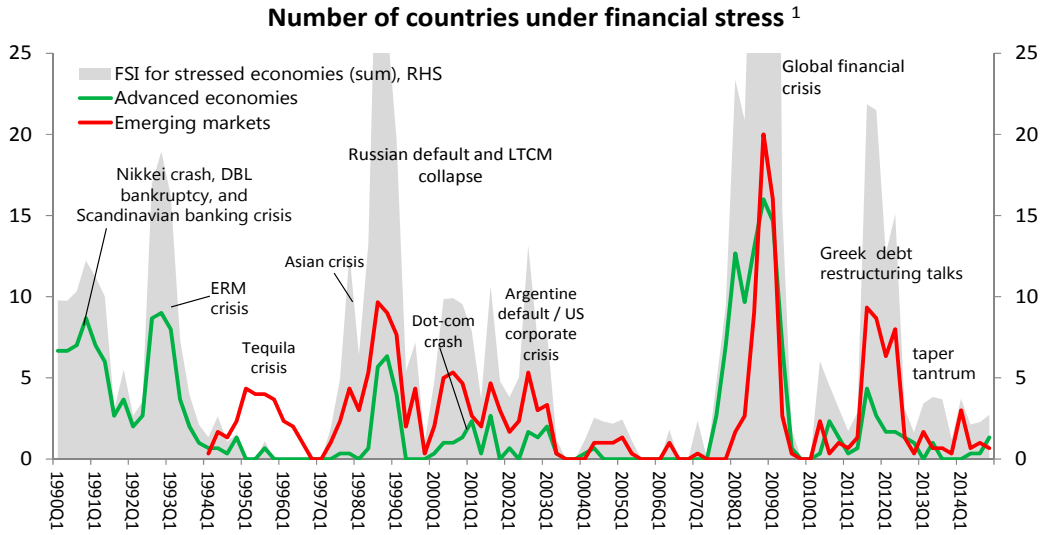
41. **The crisis demonstrated the potential for financial imbalances to generate significant systemic risks as shocks spread via contagion**. Events since 2008, together with the increased correlation of asset classes globally (Haldane, 2014), have brought a new understanding of the

[45] Despite the complex interdependencies created by capital flows and related capital account policies, and unlike most other cross-border transactions of much smaller sizes (including trade in goods and related payments), there is no universal framework that addresses cross-border global flows.

[46] Article IV, Section 3 states that "Members may exercise such controls as are necessary to regulate international capital movements…." In 2012, the IMF strengthened its guidance on capital flow management by adopting the Institutional View, which aims to ensure that the Fund's policy advice helps countries reap the benefits of capital flows, while managing their risks. It does not lead to any new obligations for Fund members. While providing the IMF with a mandate on capital account jurisdiction has been discussed for a while (see Knight and Ortiz, 2014), these proposals have not garnered broad support.

[47] See Borio, McCauley and McGuire (2011); Filardo, Genberg, and Hofmann (2014); and Obstfeld (2015).

transmission of shocks. In particular, increased gross exposures can transmit shocks even in cases when net positions are contained (Obstfeld, 2012). For instance, while *net* flows between the US and EU were negligible prior to the crisis, the enormity of underlying gross flows created stock positions that created large-scale contagion risks through valuation effects and network knock-on effects.[48]




1/ Countries under financial stress are defined as those with a financial stress index that exceeds its country-specific mean by at least one standard deviation. Financial stress indices were calculated for advanced economies and emerging markets as in WEO April 2009 except for the period 1994-1996, where the index for emerging markets is proxied using EMBI only.
Source: IMF staff calculations.

## Partial Global Financial Regulation

42. **Despite substantial progress in regulatory reforms since the crisis, uneven implementation has the potential to contribute to the build-up of financial imbalances.** Regulatory reforms have helped to strengthen banks and promote better coordination among regulators. Implementing key elements of the Basel III reform, where appropriate given domestic conditions, is improving banks' capital and liquidity positions. Uneven implementation of Basel III across systemic economies (notably the US and within the EU) could, however, limit the global stability benefits and lead to regulatory arbitrage if risky activities shift to more liberal jurisdictions and weaken the financial sector's risk management. The lack of supranational regulatory coordination, which provides for circumvention of local regulations, is another source of vulnerability. Further action is also needed in many jurisdictions to ease resolution of large, complex firms to contain spillovers from systemic crises and limit moral hazard.[49]

[48] See Tucker and Li (2014).

[49] Further action is needed in many jurisdictions to facilitate the resolution of large, complex firms, including aligning resolution regimes with best practice; reducing impediments to cross-border resolution, and developing policies for the recovery and resolution of systemically important nonbank intermediaries (IMF, GFSR October 2015, and Annex 1.1).

43. **Moreover, there has been slower progress in expanding the global prudential regulatory perimeter to encompass the rapid rise of nonbanks.** Bank regulatory reforms, abundant global liquidity, and shifting demand from institutional investors for financial assets, has contributed to the rapid expansion in the nonbank financial sector, where prudential regulation has lagged behind. Progress is now being made in financial centers to step up regulation of shadow banks. In particular, the Financial Stability Board (FSB) has stepped up its coordinating role and monitoring of shadow banks. It also launched a work program identifying financial stability risks associated with market liquidity in fixed-income markets and asset management activities.[50]

44. **The shift of private borrowing from banks to nonbanks is altering the nature of risks to the IMS**. While this shift may enhance the efficiency of the financial sector by enabling better risk sharing and maturity transformation, and by deepening market liquidity,[51] some of these entities are highly leveraged or may have large holdings of illiquid assets. During the global financial crisis, they were vulnerable to runs leading to fire sales of assets, which intensified the financial turmoil by reducing asset values and helping spread stresses to traditional banks.[52] The expansion of nonbank activities could thus lead to new types of systemic risks facing both AEs and EMDCs. In AEs, the risks associated with the rapid growth of highly leveraged hedge funds and open ended mutual funds with large holdings of less liquid assets are widely recognized. In EMDCs, while the surge in nonbank corporate borrowing can help boost corporate growth, it also has the potential to fuel excessive corporate leverage or foreign exchange mismatches.[53]

## C. Limited and Fragmented Global Liquidity Provision Mechanism

45. **In recent years, booms and busts in global liquidity have disrupted the functioning of the IMS**.[54] For instance, the evaporation of liquidity in European U.S. dollar funding markets during the crisis demonstrated the lack of resilience in global liquidity and ultimately led the Federal Reserve to extend emergency swap lines to European banks and central banks. Since then, the focus has been on *excess* global liquidity, in the context of the debate around spillovers from unconventional monetary policies in AEs. Immediate concerns focused on the challenges posed to macroeconomic management and the potential build-up of vulnerabilities in EMDCs. However, the risks of liquidity shortages have resurfaced, with concerns that a number of events (e.g., China's rebalancing, the collapse in the commodity supercycle, and anticipated monetary policy

[50] See FSB (2015).

[51] See Claessens and Ratnovski (2012).

[52] See IMF (2014a) for detailed discussion of shadow banking-related risks.

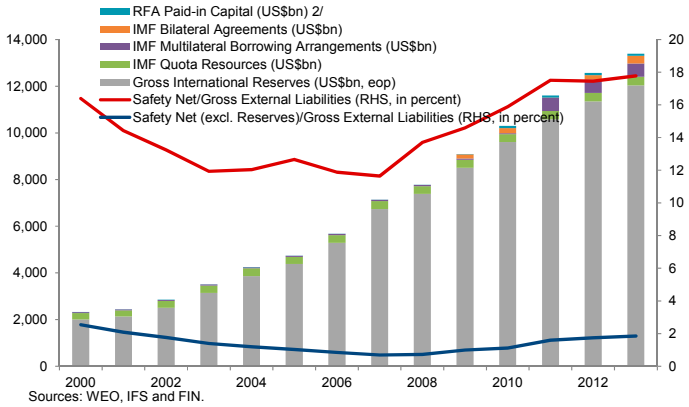
[53] See IMF (2015e).

[54] Global liquidity is typically understood as the "ease of funding" in global financial markets, driven by prevailing conditions in major financial markets, and transmitted to the rest of the world through financial intermediaries and activities in these markets. Maintaining an *adequate* level of global liquidity is important for market efficiency and economic growth. Also, *resilient* liquidity—i.e., liquidity that is less prone to sharp declines in periods of stress—is needed to help maintain financial stability.

normalization in some AEs) could generate market volatility, trigger global risk aversion and impact a broad range of asset classes. More broadly, the evolution of the global financial system may mean that the adequacy and resilience of global liquidity will remain a key challenge for policymakers, given the potential for the buildup of vulnerabilities,[55] and larger, more frequent and widespread financial stress, including liquidity shortages in foreign currency.

46. **Against this backdrop, the resources in the GFSN—a loose knit connection of insurance/liquidity/ financing instruments—do not seem to have kept up with the growing external liabilities**. GFSN resources, which comprise four broad categories (individual countries' foreign exchange reserves, bilateral swap lines (BSLs), regional financing arrangements (RFAs), and financing through multilateral institutions like the Fund) have grown since the crisis, mostly reflecting reserve accumulation. However, the stock of external liabilities has also expanded rapidly, which has raised the probability of systemic risks from a synchronized unwinding of external positions. Contagion from a systemic shock could lead to coordinated needs across many countries and regions, particularly when nonresidents lose their desire to invest and hold assets of a wide set of economies when risk appetites change (flight to safety). In a systemic event with resident flight, the needs could exceed the collective resources available from the Fund, international reserves, and RFAs.

**Global Financial Safety Net and Gross External Liabilities, 2000-13 1/**




Sources: WEO, IFS and FIN.
1/ Includes 25 AMs, 73 EMs, 8 LIC Frontier Markets. External liabilities exclude some major reserve currency issuer countries and China.
2/ Most RFA resources as well as the bilateral swap resources are already included under reserves.

47. **Each component of the GFSN has its particular characteristics, and own strengths and weaknesses:**

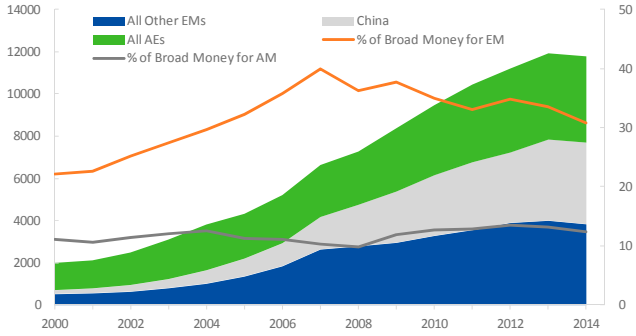
- ***Reserves***. As the first line of defense for most countries, official reserves dominate GFSN resources, although there are doubts about countries' ability/willingness to actually run down reserves.[56] Accumulating and holding reserves can be costly both for individual countries, but also globally given the spillovers to and spillbacks from reserve currency-issuing countries, as well as potential coordination problems that can undermine the resilience of the IMS.[57] After a rapid increase before the crisis, the pace of reserve accumulation in EMs has slowed since 2008.

[55] Vulnerabilities take the form of high leverage, mismatches in currencies and maturities, weak underwriting standards, and the misallocation of investment to unproductive uses. See Caruana (2014).

[56] For instance, during the global crisis nine of the largest emerging market economies chose not to use reserves.

[57] See Obstfeld (2011a).

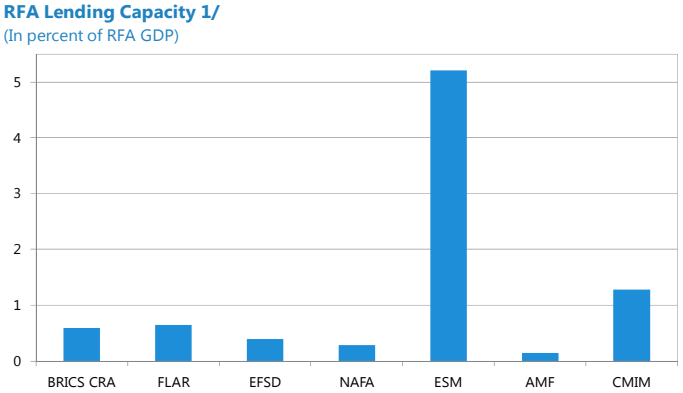
Considerations underpinning the appropriate level of reserves for precautionary purposes and their cost are discussed extensively in the Fund's work on *Assessing Reserve Adequacy*.[58]



Sources: WEO and IFS.
Note: Reserves to broad money for EMs excludes China.

- ***Bilateral Swap Lines***. Bilateral central bank swap lines usually cover very short-term foreign exchange funding needs. They provided critical liquidity support during the crisis. But many of the lines granted by the US Federal Reserve during the post-crisis period were only targeted at US dollar shortages in the financial sector of mostly AEs, and have since expired.[59]

- ***RFAs***. RFAs have increased in number since the crisis, with the creation of the Eurasian Fund for Stabilization and Development, the European Stability Mechanism (succeeding temporary lines), and the BRICs Contingent Reserve Arrangement (CRA). They are a heterogeneous group, with large variations in the availability of resources and less predictable access. Some provide precautionary insurance (e.g., BRICs), while others (e.g., the ESM) place a greater weight on lending instruments to finance the adjustment of policies.[60] Their local ownership and understanding, and their ability to tailor support to the needs of countries in the region increases their appeal. Accordingly, there may be less stigma associated with



Sources: RFAs, and WEO.
CRA = Contigent Reserve Arrangement; FLAR = Latin American Reserves Fund;
EFSD=Eurasian Fund for Stabilization and Development; NAFA = North American Framework Agreement;
ESM = European Stabilitiy Mechanism; AMF = Arab Monetary Fund; CMIM = The Chian Mai Intitiative Multilateralization
1/ Maximum of subscribed capital or lending capacity.

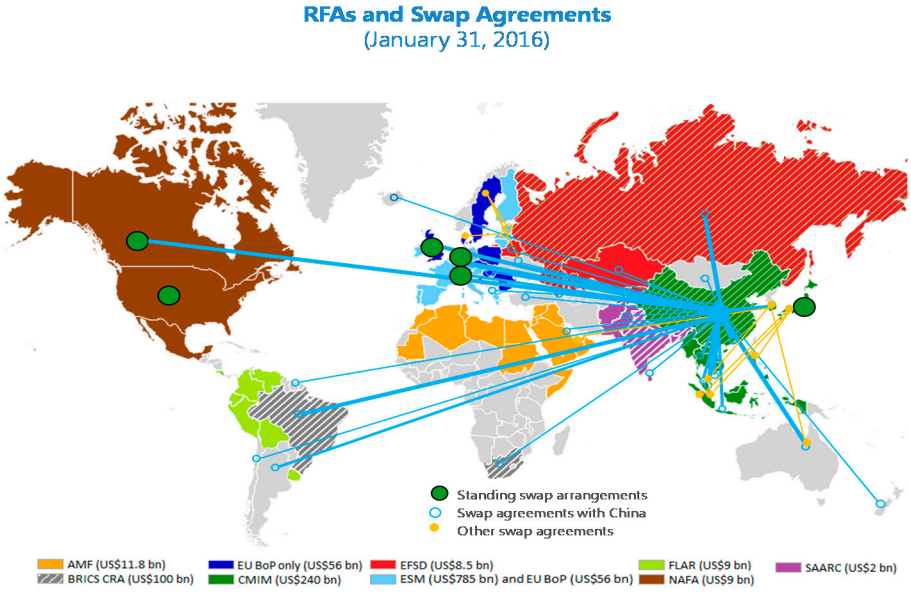
[58] Tools to assess these considerations are developed in IMF (2013c and 2015c).

[59] Temporary lines from major central banks to smaller AEs and large EMs were replaced by permanent standing lines between core advanced economy central banks. Several local bilateral currency swap lines were negotiated, including those by China and Japan. Also, China has expanded swap lines in renminbi, equivalent to about US$500 billion, reflecting largely China's domestic objectives and the need to facilitate trade. Although these lines are intended to support offshore transactions in renminbi, in practice their purpose has varied across countries. BSLs involving non-reserve currencies have also been growing, driven by rising trade and investment amongst themselves.

[60] See IMF (2013d and 2014b).

seeking financial support from an RFA than the Fund.[61] However, most RFAs have limited lending capacity compared with the potential resources—as reflected by the substantial reserves held across their membership. Their lending capacity is aligned more with the potential needs of the smaller members, limiting their ability to address a crisis affecting an entire region through contagion.

- ***IMF***. The Fund remains the one near-universal element of the safety net, with the widest array of insurance (such as FCL, PLL arrangements, and SBAs that are treated as precautionary) and financing instruments (disbursing arrangements for countries requiring policy adjustment) to flexibly meet the balance of payments needs of all its members. As such, it forms the center of the global financial safety net. Nevertheless, Fund financing can be relatively slow to be made available in a crisis due to the need to discuss program-related conditions, and individual arrangements remain largely time-bound, with a need for discussion and approval of each successive arrangement. While most of the Fund's financing instruments must be used for crisis prevention and/or crisis mitigation, the FCL and to some extent the PLL have been principally used as contingent liquidity support for crisis prevention. These constitute credit lines for countries meeting established qualification criteria, in contrast to traditional Fund financing instruments such as the SBA with ex post conditionality for countries facing balance of payments pressures and requiring policy adjustment to address existing vulnerabilities.[62]




[61] RFA assistance may not be entirely stigma-free, as RFA members can impose tough conditions (e.g., ESM) or opt out from providing support (CMIM). In addition, some RFAs (such as CMIM and the BRICS CRA) have an explicit link to IMF support if a country draws more than pre-specified thresholds.

[62] The PLL can also entail ex-post conditionality.

48. **Some countries remain reluctant to seek financial support from the Fund early.** They take longer to approach the Fund when hit by a shock, or to seek support from RFAs that require a Fund-supported program or some other involvement by the Fund. This reflects partly stigma and partly countries' unwillingness to adjust. Stigma is partly due to the lingering effects of past financial engagements and partly to Fund conditionality (which, at times, has been viewed as onerous), and while it is sometimes said to reflect a "guilt by association," the 2014 *Review of the FCL, PLL, and RFI* found that it could be more directly linked to political sensitivities. In contrast, other countries see Fund programs as a signal of strength (e.g., Mexico) and use these to undertake successful reforms. Conditionality—whether ex ante (as in the FCL and PLL) or ex post (as in other arrangements)—is to facilitate adjustment, where necessary, and mitigate any risk of moral hazard associated with Fund lending by providing incentives for good policies.[63] Thus, the challenge is to move the perception of Fund programs from stigma to a signal of strength.

49. **Fragmentation of the GFSN, which has increased over time, is a key concern.** The GFSN network has evolved over time in a relatively uncoordinated way, reflecting several interrelated factors. Fund stigma and to some extent its failure to deliver quickly have contributed to fragmentation. Major EMDCs also tend to be underinsured by RFAs given the risk of region-wide shocks and reflecting the fact that they tend to be the suppliers of liquidity in the pool. Moreover, cooperation between the different elements of the safety net has not yet been thoroughly tested: cooperation between the Fund and RFAs in providing financial support has been generally limited to Europe (Box 3).[64] Continuing to grant EMDCs greater voice in the institutions that govern the IMS would reduce further the risks of fragmenting the GFSN by containing the stigma associated with using Fund resources. Consequently, the GFSN would be less effective in addressing global systemic shocks and leave some countries vulnerable (e.g., "innocent by-standers" including those outside RFAs).

[63] The potential that countries engage in riskier policies given the availability of support in the event of a shock.
[64] Lending by RFAs outside Europe, such as FLAR and theEFSD has been incorporated in Fund-supported programs as a source of financing, but the RFAs have not been explicitly involved in the program design. The recent *Crisis Program Review* discussed Fund-RFA cooperation, finding that that Fund-supported programs involving collaboration with RFAs benefited from RFAs' regional expertise and an expanded financing envelope. In the case of Fund arrangements for members belonging to currency unions, Fund program design took into account the fact that union-wide policies can have an important bearing on the member's economic situation.

### Box 3. Experience with the Cooperation between the Fund and the European RFAs

**The recent crises in Europe have involved close cooperation between the Fund and EU institutions on program design and financing.** During the programs with the four eurozone (EZ) countries (Cyprus, Greece, Ireland, and Portugal), the Fund collaborated on the design of programs and co-financing with the European Commission (EC) and the European Central Bank (ECB) in the context of the "so called Troika" arrangement. Programs with EU member states outside the EZ (Hungary, Latvia, and Romania) involved cooperation with the EC.[1/] Countries requested financial assistance simultaneously from the Fund and EU institutions. The Fund provided most of the financing in some of these countries (Hungary and Romania). Most of the official financing came under the European Stability Mechanism (ESM), while the ECB provided substantial liquidity to the euro area financial institutions. [2/]

**Cooperation on program design and conditionality have generally reflected each institution's mandate and comparative advantage, and led to coherent programs.** The Fund and the EU institutions coordinated macroeconomic framework, program design and conditionality before joint discussions with the authorities. In general, the Fund played a greater role in the design of the macro framework and the assessment of debt sustainability, while the EC took the lead on structural issues and the assessment of fiscal targets, while also ensuring consistency with EU-wide rules and institutions.[3/] The cooperation on program design stands in contrast to prior crises, where, although other creditors were involved, the Fund designed the programs alone. Program parameters were set in the Memorandum of Economic and Financial Policies (MEFP) of the Fund, and the Memorandum of Understanding (MoU) of the EC. The MoUs generally added conditions, some of which were outside the Fund's core area of responsibility, possibly increasing the strain on the authorities' implementation capacity. In addition, EU institutions' regional commitments could have limited at times the room for maneuver for policy design. Nevertheless, the coordination has generally resulted in a unified and consistent set of macroeconomic and structural parameters.[4/]

**The experience with European RFAs highlights the need to deepen cooperation with regional partners, while preserving clear roles reflective of respective mandates.** Access to additional funding from the RFAs alleviated financing constraints, which allowed for more gradual approaches compared to previous crises—with large financing compensating for slower adjustment. The lack of an overarching framework for cooperation has allowed some flexibility in program design and monitoring, but carries risks for coherence of program conditionality. Going forward, it is also important to ensure that this cooperation continues to take place in accordance with the Fund's mandate, legal framework, policies and procedures.[4/]

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[1/] Fund staff monitoring of Spain's ESM-supported financial sector reform program also involved close cooperation between Fund staff and EU institutions; though no Fund financing or conditionality was involved.

[2/] In Poland's case, the Fund provided financial insurance in the form of an FCL—without EU institutions involvement.

[3/]Stocktaking the Fund's Engagement with Regional Financing Arrangements, IMF Policy Paper, April 11, 2013.

[4/] See IMF (2015f) for further discussion of the experience with and lessons learnt from the programs with EU members.

# STRENGTHENING THE IMS: THE WAY FORWARD

50. **The above diagnosis underlines tensions in the functioning of the IMS, compounded by the ongoing transformation of the global economy**. Already before the recent slowdown in EMDCs, convergence to AE income levels was difficult. Looking forward, the economic and financial prospects are challenging. The legacy of slow post-crisis growth in AEs is expected to continue for some time. China embarked on an ambitious multi-year rebalancing of its economy, toward slower, but sustainable growth. Supply and demand factors suggest that the fall in commodity prices is likely to stay for a sustained period. Asynchronous monetary policy normalization could add further

challenges to EMDCs with dollar exposures, while raising the potential for increased exchange rate volatility. Furthermore, shocks of a non-economic origin—such as refugee flows triggered by geopolitical conflicts and global epidemics—affect some countries and regions, and, if left unchecked, could have significant spillover effects on the global economy.

51. **Against this backdrop, there is a need to strengthen global mechanisms for adjustment and liquidity provision to shore up the effectiveness of the system.** In particular, as EMDCs continue to integrate and deepen their financial markets in a global low-growth environment, risks and vulnerabilities associated with interconnectedness and openness need to be managed, and EMDCs should be able to run modest current account deficits without the need for increasing self-insurance. Reforms should also take into account the increased weight of financial imbalances in the system.

52. **Strengthening the IMS is a shared responsibility, and requires concerted efforts in three key areas**: (i) mechanisms for crisis prevention and adjustment; (ii) global cooperation on issues and policies affecting global stability; and (iii) a large enough and more coherent GFSN. While many of the potential reform ideas have been discussed in the past, examining them in a holistic manner and with a refreshed view of the current challenges could help shape a medium-term agenda.

(i) ***Mechanisms for crisis prevention and adjustment***. Reforms should aim at strengthening policy frameworks in EMDC (including through CFMs and macroprudential measures) to enhance their resilience in the face of large capital flow pressures; and discouraging excessive leverage that strains balance sheets (e.g., by promoting longer-term equity based financing and/or developing financial instruments that allow risk-sharing with the private sector and across countries). Measures to ensure an equitable burden of adjustment across countries (e.g., surplus/deficit, source/recipient of capital flows) will also be critical. In addition, given the rapidly growing intermediation through shadow banking, a major vehicle of large capital flows, efforts should continue on strengthening their prudential regulation and supervision of systemic risks.

(ii) ***Enhanced global cooperation on issues and policies affecting global stability***. As more countries become increasingly integrated, with greater potential for spillovers and possibly more synchronized financial cycles, global cooperation becomes increasingly critical for the effective functioning of the system. This requires primarily countries' commitment to consider the impact of their policies on the rest of the world, as well as greater cooperation on capital flow management and on financial regulation.

(iii) ***A large enough and more coherent GFSN*** will be particularly important as risks continue to rise with further integration. While further diagnostic work will be critical to define the precise nature of the underlying problems in the GFSN, options for further reform may need to consider ensuring liquidity support during systemic events, and effective cooperation among the different layers of the GFSN to limit the potential for contagion to innocent by-standers. For instance, some form of monitoring or policy signaling by the IMF could facilitate such cooperation, allowing creditors to rely on the Fund's expertise in this area, and reducing moral hazard in the system more generally.

53. **Further work is needed to flesh out in detail possible reform ideas in the areas discussed above**. Indeed, deeper analysis of possible reforms, including stress-testing their feasibility is critical before moving forward. Follow-up work could lay out possible reform ideas as a basis for discussing a future roadmap. In parallel, initial work in some areas already mapped out in the Managing Director's Work Program could help guide the reform agenda. In this context:

- ***Capital flow management and foreign exchange intervention***. By late 2016, staff plans to take stock of the implementation of policies on the liberalization and management of capital flows. CFMs and FX intervention-related issues will also be analyzed as part of staff's work of developing an integrated view on the use of policy tools (e.g., monetary policy, FX intervention, regulatory measures) to respond to exchange rate, liquidity, inflation and balance sheet pressures. Depending on the outcome of this analysis, staff could undertake further work on capital flow management measures and foreign exchange intervention.
- ***Global Financial Safety Net***. The informal Board discussion on the *Adequacy of the Global Financial Safety Net* will seek to build consensus around a common diagnosis of the GFSN. This could provide the basis for further work by staff to develop reform proposals, with a detailed assessment of their cost and benefits. In parallel, the forthcoming paper on the *Adequacy of Fund Resources: Initial Considerations* will assess whether Fund resources are sufficient for it to effectively play its central role in the GFSN and meet members' financing needs in a changing world. This will be followed by discussions of the future of the 2012 Borrowing Agreements and Review of Borrowing Guidelines and the need to renew the NAB.
- ***Role of the SDR***. On the heels of the recent inclusion of the renminbi in the SDR basket, many parts of the membership are interested in discussing enhancing the role of the SDR. Staff would need to return to this in due course.

# ISSUES FOR DISCUSSION

54. **At this stage, Directors may wish to focus their remarks on the following questions:**

- In view of ongoing changes in the global economic and financial environment, how do you view the strategic importance of the Fund exploring options to continue strengthening the IMS?
- What are the most critical problems or gaps in the current functioning of the IMS?
- How can the Fund facilitate financial deepening in emerging markets and developing countries?
- How can the Fund best help maximize the benefits, and safeguard against potential risks, from cross-border capital flows?
- What do you see as the Fund's role, as the global pillar, in promoting the effectiveness of the overall GFSN?
- What are the priority reform areas?

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