



Independent Evaluation Office  
*of the* International Monetary Fund

## **IMF FINANCIAL SURVEILLANCE**

December 14, 2018

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**ABBREVIATIONS**

AE	advanced economy
AFR	African Department (IMF)
AML/CFT	Anti-Money Laundering and Combating the Financing of Terrorism
APD	Asia and Pacific Department (IMF)
BCBS	Basel Committee on Banking Supervision
BIS	Bank for International Settlements
CBRs	Correspondent Banking Relationships
ED	Executive Director
EME	emerging market economy
EUR	European Department (IMF)
EWE	Early Warning Exercise
FATF	Financial Action Task Force
FCI	Financial Conditions Index
FDMD	First Deputy Managing Director
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSE	Financial Sector Expert
FSSA	Financial System Stability Assessment
FSSR	Financial System Stability Review
FTE	full-time [staff] equivalent
FY	financial year
G20	Group of Twenty
GDP	gross domestic product
GFC	Global Financial Crisis
GFM	Global Macrofinancial Model
<i>GFSR</i>	<i>Global Financial Stability Report</i>
GIMF	Global Integrated Monetary and Fiscal Model
G-SIFI	Global Systemically Important Financial Institution
IAIS	International Association of Insurance Supervisors
IEO	Independent Evaluation Office (IMF)
IET	Internal Economics Training (IMF)
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISD	Integrated Surveillance Decision
ISR	Interim Surveillance Review
LIC	low-income country
MCD	Middle East and Central Asia Department (IMF)
MCM	Monetary and Capital Markets Department (IMF)
OED	Offices of the Executive Director (IMF)
OFC	offshore financial center

RES	Research Department (IMF)
ROSC	Report on the Observance of Standards and Codes
SCAV	Standing Committee on Assessment of Vulnerabilities
SIFI	Systemically Important Financial Institution
SPR	Strategy, Policy, and Review Department (IMF)
SSB	Standard Setting Body
TA	technical assistance
TSR	Triennial Surveillance Review
UMP	unconventional monetary policy
VEE	Vulnerability Exercise for Emerging Markets
<i>WEO</i>	<i>World Economic Outlook</i>
WHD	Western Hemisphere Department (IMF)

## EXECUTIVE SUMMARY

**In response to the Global Financial Crisis (GFC), the IMF launched many initiatives to strengthen financial surveillance to better advise member countries of vulnerabilities and risks and to foster greater resilience.** Among these initiatives are: adopting decisions that gave the IMF clearer responsibilities over financial sector stability and cross-country spillovers; making periodic financial stability assessments mandatory for 29 jurisdictions determined to have systemically important financial sectors (S29); invigorating efforts to integrate financial and macroeconomic analysis in bilateral and multilateral surveillance; enhancing cooperation with the Financial Stability Board (FSB) and standard setting bodies (SSBs) to promote reforms and monitor agreed standards; and taking steps to recruit and train greater financial expertise.

**While these initiatives have not yet been tested by a major crisis, the efforts have delivered a substantial upgrade of the Fund's financial surveillance work.** The Financial Sector Assessment Program (FSAP), focused on the S29, has provided high-quality in-depth assessments as countries themselves have strived to make their financial systems more resilient. The IMF has contributed to the development of stress tests and a broad range of diagnostic tools, explored new policy approaches (e.g., macroprudential tools), and brought such innovations to the broader membership. Article IV surveillance has stepped up attention to macrofinancial linkages. And the *Global Financial Stability Report (GFSR)* and Early Warning Exercise (EWE) are now respected as leading sources of insights on the global financial system. This has occurred as a rising share of IMF economists have acquired experience in financial sector issues.

**While recognizing these achievements, this evaluation finds that the quality and impact of the IMF's financial surveillance has been uneven.** The expansion of products and activities has presented the Fund with difficult trade-offs between bilateral and multilateral surveillance; between countries with systemically important financial sectors and other member countries; and between financial surveillance and other activities, including emerging macro-critical issues. Moreover, resource constraints have slowed the needed build-up of financial and macrofinancial expertise, as others have worked hard to raise their game. These are critical issues, given the IMF's position as the only international financial institution with the mandate and ability to conduct financial and macrofinancial surveillance over a full range of countries as well as the global economy, and given that these issues are at the core of the IMF's responsibilities.

**Thus, notwithstanding the real progress to date, the IMF should address a number of challenges to further strengthen the effectiveness of financial surveillance.** The recommendations in this evaluation would not entail a major shift in the IMF's goals and strategy. Rather, they seek to encourage faster progress and greater traction by combining new initiatives with sustained efforts to build on ongoing work programs and a willingness to fine-tune priorities to meet changing needs.

## **Bilateral surveillance**

**There is still a need to strengthen financial and macrofinancial analysis in Article IV consultations, including through closer integration with the FSAP.** Article IV teams do not have the breadth and depth of skills and resources to adequately identify and explore financial stability risks. While FSAP teams are better equipped for this purpose, they often lack in-depth country knowledge, and the assessments are too infrequent to detect fast-developing financial stability risks. In their planning, implementation, and follow up, FSAPs and Article IV consultations should be more systematically conducted as parts of the same process. Concretely, FSAPs could provide a periodic “deep dive” to identify key risks and vulnerabilities in the form of a new financial vulnerability matrix, while Article IV consultations could provide annual checkups to track FSAP-identified concerns, using techniques and templates suggested by the FSAP and taking care to adapt in a timely fashion to evolving circumstances. To implement such a strategy, Article IV teams for countries where financial vulnerabilities are potentially of serious concern will require a significantly increased allocation of MCM economists. In countries with no recent FSAP, Article IV teams would have to intensify their preparatory work to identify financial and macrofinancial vulnerabilities and develop policy advice, with support from MCM and other departments.

**The allocation of FSAP resources should be more flexible and dynamic, and more clearly risk-based.** The current approach, which requires mandatory assessments every five years for the S29, risks paying too little attention to countries that fall just outside the boundary but may face serious financial vulnerabilities, while paying too much attention to relatively low risk yet more sizeable and connected financial sectors. Under an alternative approach, only the five most systemically important financial sectors (S5) would continue to be covered every five years on a mandatory basis. For the rest of the membership, each year as part of the work program discussions with the Executive Board, Management would propose a rolling list of countries that would be covered by FSAPs over the following two or three years. These countries would be identified based on criteria similar to those currently in place for prioritizing non-mandatory FSAPs, approved by the Board in the context of the 2014 FSAP review, which include financial and macroeconomic vulnerabilities and take into account the need to maintain a balance across regions and levels of financial development. This alternative approach would allow wider and more risk-based country coverage.

**The scope and focus of FSAPs should be more differentiated across countries and more closely tailored to country circumstances, thereby raising value added and traction.** FSAPs in jurisdictions with the largest and most sophisticated financial systems are hugely resource intensive but subject to diminishing returns. In those countries already conducting regular high-quality stress tests, FSAPs could focus on reviewing the authorities’ models, designing risk scenarios, and discussing the results of the tests and critical stability risks. The FSAP advice should be fully anchored in the local circumstances and not overly reliant on off-the-shelf “international best practice” more suited in other contexts.

## **Multilateral surveillance and global financial regulatory architecture**

**The traction of multilateral surveillance could be further increased through greater rigor and transparency.** The *GFSR* and the EWE are widely viewed as providing valuable and sometimes pathbreaking analysis, particularly in the *GFSR*'s analytical chapters and the EWE's outside-the-box thinking. The *GFSR* is appreciated for being more candid than bilateral surveillance while generally being careful not to heighten market instability. Still, the impact of the *GFSR* could be enhanced by making the messages of Chapter 1 more convincing to country authorities. More thorough checking with in-house country experts and making the analytical and empirical background work more easily accessible would be helpful to this end. The EWE's impact could potentially be increased through broader dissemination of the analysis beyond the initial very restricted audience and closer coordination with the FSB on topic selection to achieve greater synergies, although care must be taken not to compromise the value of an already successful product.

**There is room to strengthen the IMF's contribution to the global regulatory agenda in areas of its comparative advantage by working more closely with international partners.** Key partners like the FSB and SSBs generally appreciate the Fund's contributions, including its analytical work and its independent and global perspective, and value its role representing countries that are not members of these organizations. In turn, the IMF respects the lead role of the FSB and SSBs in developing new rules and regulatory frameworks. Looking forward, and dependent on resource availability, the IMF could increase its contribution to assessing the impact of reforms at the country level, leveraging its FSAP and Article IV work and its macrofinancial expertise. Also, working with international partners, the IMF would be well placed to contribute to analyzing cross-border transmission channels and to developing stress tests for the global financial system, although the feasibility of this work would depend on increased access to granular data on global systemically important financial institutions (G-SIFIs).

### **Enhancing tools and building expertise**

**To enhance its value added on financial stability issues, the IMF should intensify efforts to be a global center of excellence on financial and macrofinancial research.** While the IMF cannot be expected to be at the cutting edge on all issues, it should expand research on issues within its comparative advantage, particularly on models to analyze macrofinancial linkages and cross-border spillovers and tools to identify and assess vulnerabilities and risks.

**The IMF should sustain and extend efforts to develop financial expertise among its staff.** A rising share of fungible macroeconomists has experience with financial sector work, but additional efforts are still needed to ensure all country teams have adequate skills. Further, the Fund seems short of deep financial expertise. A key step will be to provide more attractive career paths for financial economists that allow for continued specialization and promotion to senior managerial levels.



## Resources

**Consideration should be given to increasing the resource envelope for financial surveillance if the Fund is to meet its goals and mandate.** Uneven results in mainstreaming macrofinancial work into Article IV surveillance, competition for scarce FSAP resources, scope to increase its contribution on the global regulatory agenda, and the potential for further gains from strengthening analytical work all suggest that existing budgetary resources are under strain. The budgetary envelope for financial surveillance has increased somewhat since the 2012 Financial Surveillance Strategy was launched but it is still only around the levels of the mid-2000s, before the GFC.

**The highest priority for additional resources would be to strengthen financial and macrofinancial surveillance in Article IV consultations, which would require a larger pool of financial and macrofinancial talent.** Enhancing the IMF analytical toolkit would also require a (more modest) increase in resources. Expanding recruitment, training and retention of financial economists may require financial incentives, in addition to offering better career prospects. Other recommendations need not require additional resources. It should be possible to expand coverage and increase the value added of FSAPs, provided that the number of mandatory FSAPs is greatly reduced and a more flexible approach is adopted to allocation of FSAP resources. The changes recommended to enhance the traction of multilateral surveillance could be achieved largely by some reallocation of existing resources.



## I. INTRODUCTION

1. **This evaluation assesses IMF financial surveillance.** For the IMF, financial surveillance includes a broad range of activities at the country and global levels occurring at the intersection of its financial sector work and its broader surveillance activity. The key goals of financial surveillance are to advise individual member countries on policies to foster financial stability and financial development, as well as to inform the IMF membership of vulnerabilities and risks to global financial stability and policies to address them.
2. **Following the Global Financial Crisis (GFC), the international community strengthened the IMF's oversight role over financial systems.** There was recognition that because of its global membership and governance, and its macroeconomic expertise, the IMF was well placed to identify and warn about financial and macrofinancial vulnerabilities and risks and to provide an independent perspective to the collective efforts at regulatory reform. The expanded responsibilities were made explicit in 2012 in a new surveillance decision (IMF, 2012a) and the adoption of a new financial surveillance strategy (IMF, 2012b). In 2014, the IEO examined how, as part of its response to the crisis, the IMF expanded and deepened its financial surveillance activities; it concluded that progress was being made and provided recommendations on how these efforts could be further strengthened (IEO, 2014).
3. **This evaluation examines the strategic directions, relevance, quality and efficacy of IMF financial surveillance activities and outputs focusing on the period since the IMF adopted the 2012 Financial Surveillance Strategy.** It also covers a longer period when relevant. The emphasis is on the analysis and advice to countries with systemically important financial sectors, but the evaluation also examines financial surveillance in a broad range of member countries. While recent years have been a period of significantly less financial stress than during the GFC, the role of IMF surveillance has remained critical, requiring the membership to remain alert and avoid complacency.
4. **Financial surveillance poses greater challenges for the IMF than surveillance over fiscal or monetary policies.** First, as described in Section II, the IMF's responsibilities and activities in financial surveillance have only gradually evolved, and its access to necessary information and data remains constrained. Second, financial vulnerabilities and risks can change much faster than fiscal, structural and monetary developments—a challenge for IMF surveillance, which tends to be a periodic rather than continuous exercise. Third, while the IMF is generally encouraged to be a "ruthless truth-teller," on financial matters it needs to take care not to become a catalyst for the risks that it identifies. This is especially important because cross-border spillover and contagion of financial risks can be faster and more pronounced than in other areas. Finally, until relatively recently, the economics profession, including most IMF economists, had paid relatively little attention to macrofinancial linkages and risks, and the analytical framework for such work is not well developed.

5. **The IMF conducts its surveillance at two levels—bilateral and multilateral.** Bilateral refers to surveillance activities and products focused on a single country, while multilateral surveillance examines the global economy. The main instruments for bilateral financial surveillance are annual Article IV consultations and periodic assessments under the Financial Sector Assessment Program (FSAP).<sup>1</sup> The biannual *Global Financial Stability Report (GFSR)* and Early Warning Exercise (EWE) are the key vehicles for IMF multilateral financial surveillance. As part of surveillance, the IMF also cooperates with other organizations, e.g., with the Financial Stability Board (FSB) and the World Bank.

6. **The evaluation draws on eight thematic background papers (see Annex 1 for abstracts of these papers) and in-depth case studies covering 14 countries and the Euro area.** Evidence includes reviews of IMF documents (internal and publicly available) and documents from other organizations; interviews with member country authorities, partner organizations, financial market participants, academics and other external experts; and interviews with and surveys of the offices of Executive Directors (OED) and of IMF staff (see Monasterski, 2018).

7. **The remainder of this report is organized as follows.** Section II describes the evolution of the IMF's financial surveillance responsibilities and how activities have evolved since the GFC. Sections III and IV examine bilateral and multilateral surveillance, respectively, evaluating strengths and identifying challenges of the various products. Section V discusses the analytical toolkit used in financial surveillance. Section VI explores how the IMF organizes its financial surveillance work, including budgetary resources and talent management. Section VII provides an overall assessment and makes recommendations to further strengthen IMF financial surveillance.

## II. IMF FINANCIAL SURVEILLANCE—EVOLUTION AND CHALLENGES<sup>2</sup>

8. **The goals and outputs of IMF financial surveillance have greatly expanded in the aftermath of the GFC with clear priority given to jurisdictions with systemically important financial sectors.** For decades, the IMF's responsibilities and attention to financial systems increased gradually in response to periodic financial crises and a growing recognition that open capital accounts and financial liberalization tend to magnify contagion and spillovers. After the GFC, financial surveillance became more widely accepted as a central element of IMF work, enshrined in Board decisions and expanded activities, and a critical contributor to achieving the IMF's overall mandate. The GFC also made clear the need to focus financial surveillance on the countries with systemically important financial sectors, including those where the crisis originated.

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<sup>1</sup> In this report FSAP is used for the mandatory financial stability assessments for the 29 jurisdictions with systemically important financial sectors, as well as the voluntary FSAPs for the rest of the membership.

<sup>2</sup> This section draws on Takagi (2018), Stedman (2018).

9. **Financial crises have largely driven the evolution of IMF financial surveillance.** In response to the sequence of crises in emerging market economies (EMEs) in the 1990s, IMF surveillance greatly expanded the coverage of financial sector policies and conditions. These crises demonstrated increasing interconnections between financial vulnerabilities, economic activity and balance of payments, and the risk of spillovers. The IMF responded to these crises, particularly the 1997 East Asian crisis, by launching new vehicles to assess financial sector policies and conditions: the FSAP, the *GFSR* and the Vulnerability Exercise for EMEs.<sup>3</sup> These instruments paid particular attention to EMEs, seen as the main potential source of financial instability. The IMF also increased coverage of financial sector policies and conditions in Article IV consultations, as laid out in successive operational guidance notes for staff (e.g., IMF, 1997; 2002b; 2005).

10. **The FSAP was launched in 1999 jointly with the World Bank as a voluntary diagnostic tool.** Its main goals were to identify financial stability and development challenges and to report on compliance with agreed standards and codes. The IMF summarizes the conclusions of each FSAP in a Financial System Stability Assessment (FSSA), which includes recommendations to be followed up on in subsequent Article IV consultations. In 2002, the *GFSR* replaced an earlier flagship report (the *International Capital Markets Report*), with a greater focus on assessing global financial markets and identifying vulnerabilities “that could pose a risk to financial market stability and sustained market access by emerging market borrowers” (IMF, 2002a).

11. **In response to the GFC, the IMF launched many initiatives to expand and strengthen financial surveillance to better advise member countries of vulnerabilities and risks, and to foster greater resilience.** Among these initiatives were: making FSAPs mandatory at least every five years for jurisdictions with systemically important financial sectors (currently 29 jurisdictions, the S29, are identified by the IMF as such)<sup>4</sup>; invigorating efforts to integrate financial and macrofinancial analysis in bilateral and multilateral surveillance enhancing cooperation with the FSB and SSBs to promote reforms and monitor agreed standards; conducting the EWE jointly with the FSB to explore financial tail risks to the global economy; expanding the vulnerability exercise to cover risks in advanced economies (AEs) and low-income countries (LICs); and taking steps to enhance financial skills and expertise among IMF staff, through both training and recruitment.

12. **The 2012 Integrated Surveillance Decision (ISD) expanded the responsibilities of IMF surveillance with respect to members’ financial policies (IMF, 2012a).** The ISD made it clear that IMF staff should explore financial sector issues relevant for domestic stability as well as for

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<sup>3</sup> The Vulnerability Exercise for EMEs (VEE) is an internal exercise initiated in 2001 to identify EMEs vulnerable to an external or internal crisis in the following 6–12 months for discussion between IMF staff and management.

<sup>4</sup> The S29 are identified by a complicated exercise weighing countries’ financial system size and interconnectedness. This list is reviewed every five years. Currently, the S29 are: Australia, Austria, Belgium, Brazil, Canada, China, Denmark, Finland, France, Germany, Hong Kong SAR, India, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, Norway, Poland, Russia, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. For the purposes of this evaluation, the Euro area is treated as part of the S29.

their potential for outward spillovers, which are now discussed in Article IV consultations regardless of whether they occur through the balance of payments channel.<sup>5</sup>

13. **The 2012 Financial Surveillance Strategy, launched following the adoption of the ISD, called for a more integrated view on financial risks across IMF products and instruments.** It identified three strategic priorities: to strengthen the analytical underpinnings of macrofinancial risk assessments and policy advice, to upgrade the instruments and products of financial surveillance, and to engage more actively with stakeholders to improve traction (IMF, 2012b). In implementing the 2012 Strategy, the IMF has focused its resources and attention on the S29, and it has sought to mainstream macrofinancial analysis into Article IV consultations across the membership. The IEO surveys suggest that the strategy is well understood and broadly supported by the Executive Board (“the Board”) and IMF staff.

14. **The IMF has also tried to address organizational impediments and cognitive biases that hindered its performance in the run-up to the GFC.** Among the initiatives to mitigate silo behavior and to facilitate “connecting the dots,” the Surveillance Committee and the Financial Surveillance Group meet periodically to, respectively, ensure the consistency of surveillance messages and promote discussion of financial sector issues. Also, FSAP teams prepare Financial Stability Policy Notes that are the basis for early interdepartmental feedback on preliminary assessments and recommendations. Further, the IMF has taken measures to counter groupthink and intellectual capture, including involving external experts in the periodic reviews of surveillance and working more closely with other institutions with overlapping mandates.

15. **As a consequence of these multiple initiatives, the scope, coverage and intensity of IMF financial surveillance has greatly expanded.** Over 300 FSAPs have been completed since the program was launched in 1999, covering 75 percent of the membership. Macrofinancial analysis has been integrated, at least to some extent, in most Article IV consultations. And the *GFSR* and the *EWE* have become increasingly respected as premier sources of insight on the global financial system. Financial surveillance is now well established and accepted by the membership and IMF staff as a core element of the Fund’s activities.

16. **The sustained expansion of the scope, products, and activities of financial surveillance has been helped by a moderate increase in resources in recent years (Stedman, 2018).** Total resources going to financial surveillance across the IMF are not tracked separately, so we assessed changes in the resource envelope by looking at personnel spending by

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<sup>5</sup> The ISD expanded the perimeter of financial surveillance beyond the 2007 Decision on Bilateral Surveillance. This decision defined the scope of IMF surveillance to include all member policies that “can significantly influence present or prospective external stability,” including “monetary, fiscal and financial sector policies” (IMF, 2007), but had implicitly limited the examination of outward spillovers only to those operating through the balance of payments channel (IMF, 2010a). Thus, in practice, effective integration of financial sector issues and policies had remained a challenge (IMF, 2010b).

the Monetary and Capital Markets Department (MCM) and spending by area and other functional departments on the macrofinancial pilot (since FY2014).<sup>6</sup> As shown in Figure 1, MCM resources declined as part of the overall downsizing of the IMF in the years just prior to the GFC. MCM's budget was rebuilt following the crisis, particularly during FY2014–18. Figure 2, based on detailed data by output, shows that MCM spending specifically on surveillance activities has increased by the equivalent of around 10–20 full-time staff-years (FTEs) since 2012. Much of this increase went to costly FSAPs in the five most systemically important financial centers (S5, i.e., China, Euro area, Japan, U.K., and U.S.) and to the *GFSR*, while resources for cooperation with other international organizations were cut back. There may also have been some increase in area department resources applied to financial surveillance, particularly in the context of launching the macrofinancial pilot, but attention to financial surveillance has competed with a variety of demands on area departments in recent years.

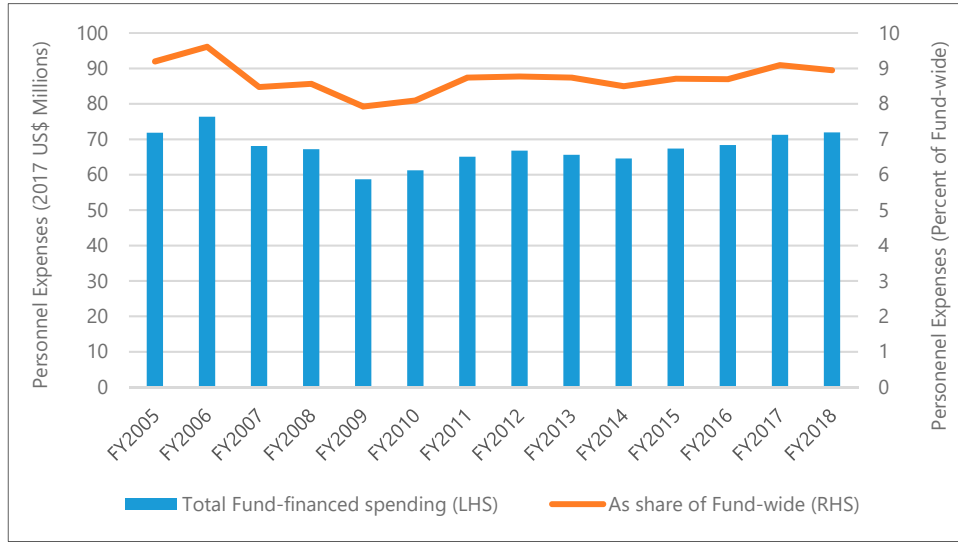
17. **However, overall resources for financial surveillance seem barely back to their pre-GFC levels.** MCM's personnel spending is now at about the same level as in the mid-2000s, both in real dollar terms and as a share of the Fund-financed IMF budget (about 9 percent).<sup>7</sup> Further, resources for financial surveillance face constraints going forward. Support for the macrofinancial pilot was expected to be phased out as this analysis becomes a standard component of Article IV consultations. And as part of a budget streamlining effort, the IMF has recently taken steps to control costs of financial surveillance along with other activities. In May 2018, management decided to cap the resources available for individual FSAPs and to limit the analytical chapters of the *GFSR* to one per issue. The future path of overall resources for financial surveillance thus remains unclear, despite the expanded responsibilities and importance of these activities to the IMF's mission.

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<sup>6</sup> During the past five years, MCM's FTE envelope for surveillance rose from 125 to 140 FTEs (FTE represents the cost of an average full-time employee which during the evaluation period stood at about US\$300,000). In addition, during the past three years, other departments (primarily area departments) directed 20–25 FTEs to a pilot program to support the mainstreaming of macrofinancial analysis into Article IV consultations (although part of these resources may have been redirected from other financial surveillance work). Spending on multilateral surveillance declined from FY2010–14 as cooperation with other international organizations was cut back or reclassified, but resources for the *GFSR* increased from 20 FTEs in FY2012 to 28 FTEs in FY2018.

<sup>7</sup> Excludes travel and externally-financed resources, which are mainly used to fund capacity development work.

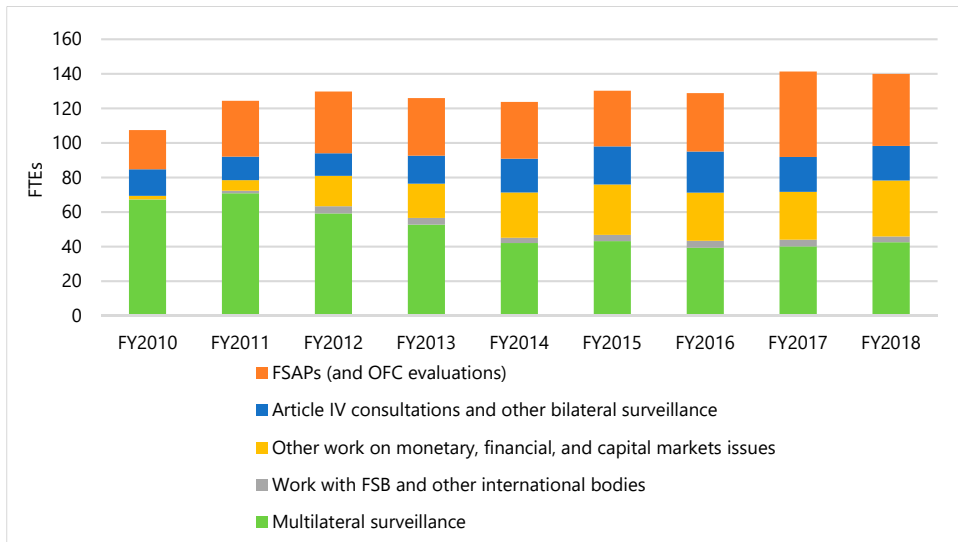
**Figure 1. MCM Personnel Spending  
(2017 US\$ millions and as a share of Fund-wide)**



Source: IEO calculations; Office of Budget and Planning, FACTS.

Notes: Excludes travel and externally-financed resources, which are mainly used to fund capacity development work. For the years prior to the creation of the Monetary and Capital Markets Department (MCM) the table shows the sum of spending by its predecessor departments (International Capital Markets and Monetary and Financial Systems).

**Figure 2. MCM Personnel Spending on Surveillance, FTEs**



Source: IEO calculations; Office of Budget and Planning (Time Reporting System and Time Reporting for Analytic Cost and Expenditure System).

Notes: Personnel spending (excluding travel) on Fund-financed activities identified by IEO as related to surveillance. Fund-financed capacity development comprised about 65 FTEs, and lending work about 7 FTEs in FY2018. FSAPs = Financial Sector Assessment Program exercises; FSB = Financial Stability Board; FTE = full-time [staff] equivalent; OFC = Offshore financial center.



### III. BILATERAL SURVEILLANCE<sup>8</sup>

18. **Article IV consultations and FSAPs are the main vehicles for IMF bilateral financial surveillance.** The role each should play and how they should be integrated have been the subject of recurrent debate at the IMF and among the membership. In 2010, FSAPs aimed at identifying and advising on financial stability vulnerabilities and risks for the S29 formally became a surveillance activity. Since the 1990s, Article IVs have been charged with integrating financial sector concerns into their analysis and recommendations and, since 2014, with considering macrofinancial linkages and identifying macrofinancial risks. This section examines the relevance, quality and effectiveness of each of these two activities, and the efforts at integrating them.

#### A. Financial Sector Assessment Program (FSAP)

##### Background

19. **FSAPs have taken on a more central role in surveillance over time.** FSAPs were launched as a technical assistance (TA) instrument, even while they had a significant surveillance element. Their process and organization were those of a TA activity; they were demand-driven and handled by MCM; they aimed at covering a broad spectrum of financial sector challenges (e.g., infrastructure, markets, and policies in addition to financial stability vulnerabilities); and their outputs were voluminous. They were carried out jointly with the World Bank, with the Fund focusing on financial stability and the Bank on financial development. All this has been evolving, particularly since FSAPs for the S29 were converted to mandatory surveillance tools, and the respective roles and processes of the Fund and the Bank were clarified and differentiated. Still, some elements of TA remain; for instance, missions are much larger and longer than for Article IV consultations, area departments and ED offices are less involved, and FSAPs beyond the S29 are undertaken only at the request of the member country.

20. **FSAPs have become an increasingly sophisticated tool for evaluating the stability of financial systems.** The IMF-led stability assessments are tasked with covering three components: (i) the main risks to financial and macrofinancial stability, including stress tests to explore stability risks and assess the resilience of the financial system to shocks; (ii) the country's financial stability oversight framework; and (iii) the authorities' capacity to manage and resolve a financial crisis. They also include Reports on the Observance of Standards and Codes (ROSC) summarizing the most important findings from assessments of compliance with international norms undertaken as part of the FSAP. For low- and middle-income countries, FSAPs also assess financial developmental needs and inclusion, which are the primary responsibility of the World Bank.

21. **What is the process for preparing and staffing an FSAP?** FSAPs are usually led by MCM staff, more senior staff for the S29. Teams typically include external experts and a participant from the corresponding area department, in addition to staff from MCM. MCM maintains a work

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<sup>8</sup> This section draws on Caprio (2018), Takagi (2018), and the country case studies (IEO, 2018a; 2018b).

program aimed at completing FSAPs for the S29 every five years. The remaining FSAP resources are allocated to the non-S29 countries based on criteria established by the Board that include financial and macro vulnerabilities, as well as the need to maintain a balance across regions and levels of financial development.<sup>9</sup> The typical preparation time for an FSAP is 18–24 months, from the initial contact with authorities about scope and timing through Board discussion. In advance of the main mission, teams prepare a Financial Stability Policy Note with a preliminary assessment of systemic risks and the financial oversight framework, along with proposed recommendations. The Policy Note is discussed at an interdepartmental meeting and then cleared by management. At the conclusion of the main mission, the team discusses with authorities an Aide Memoire summarizing key findings and policy issues. The team then prepares an FSSA, focusing on financial stability issues, which is usually discussed by the Board together with the corresponding Article IV report.<sup>10</sup>

### **Evaluation findings**

22. **FSAPs are widely viewed by authorities as a useful exercise, although the source of value differs across countries.** In LICs and some EMEs, FSAPs are the main, if not the only, independent comprehensive assessment of the financial sector. In other countries, at a minimum most authorities consider discussions with peers on the FSAP team helpful to validate their analysis and serve as a sounding board for policies under consideration. Moreover, some authorities use the FSAP recommendations to bring together a diverse community of largely independent regulators and build domestic political support for planned reforms. Officials also stress that the FSAP serves to inform and reassure the international community on the state of their financial systems and oversight institutions. Also, authorities in most countries indicated that FSAPs (and Article IV) are an important source of information about financial systems in other countries. Even the U.S. authorities, who were quite skeptical about the possibility of value added in terms of their own learning, indicated that it was worthwhile going through the FSAP exercise, even if only to ensure that FSAPs are conducted for other key jurisdictions.

23. **Nevertheless, many S29 officials feel that there have been diminishing returns over time in the value added of FSAPs, particularly when set against the considerable administrative burden imposed on the country.** Many authorities explained that the first FSAP had the most impact in terms of transferring analytical know-how, offering useful

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<sup>9</sup> The selection of non-S29 countries for FSAPs is conducted in consultation with the World Bank by relying on criteria established by the Board, namely: systemic or regional importance of the country; external sector weaknesses or financial vulnerabilities; major reform programs that might benefit from a comprehensive financial sector assessment; features of the exchange rate and monetary policy regime that make the financial system more vulnerable, such as inconsistency with other macroeconomic policies; maintaining a balance across regions and different levels of financial sector development; and the time elapsed since the previous FSAP (IMF, 2014c).

<sup>10</sup> Publication of FSSAs is voluntary but presumed; two-thirds of FSSAs completed since 2010 are listed by MCM as published (85 percent of S29 and 55 percent of non-S29). Publication of underlying technical notes and detailed assessment reports is also voluntary, although they can only be published if the corresponding FSSA is published.

recommendations on institutional arrangements, and detecting vulnerabilities that the authorities were not already aware of. However, in many countries, authorities have made strides in their own ability to assess financial stability, as they have dedicated far more time and effort to understanding the risks facing their systems than the IMF could, and they have access to data that cannot be legally shared with the IMF. While FSAP teams are highly regarded for their expertise, many countries believe their national regulatory experts are just as good if not better and increasingly apply state of the art techniques. Many authorities recognized that this progress was in part a result of support from earlier FSAPs.

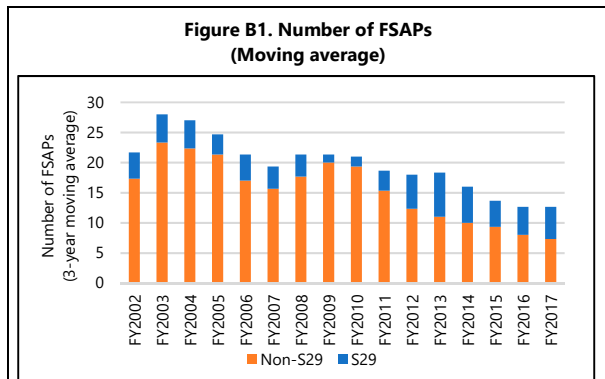
24. **The sense of diminishing value added over time is of particular concern because FSAPs have become increasingly resource intensive for authorities and the IMF.** Resources allocated to individual FSAPs have tended to rise over time, for both S29 and other countries (Box 1). Their average cost has more than doubled in the past five years, driven mostly by FSAPs in the S5. As a result, a rising share of resources has been devoted to the S29 (around two-thirds), and in particular to the S5 (around 20 percent). FSAPs in non-S29 countries have also become more costly, but they are less frequent and their share of the overall resources has diminished.

**Box 1. Evolution of FSAP Outputs and Costs**

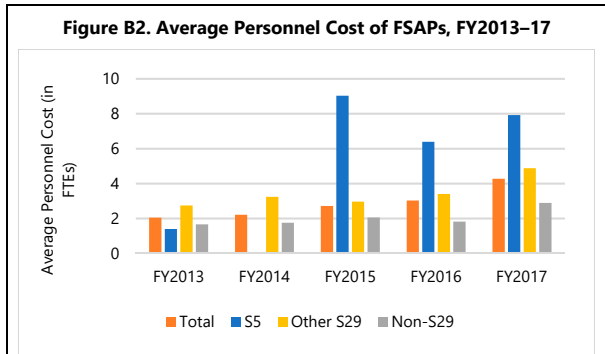
During FY2010–17, the IMF completed 127 FSAPs covering 110 different jurisdictions. The annual number of FSAPs (on a three-year moving average basis) declined gradually from 21 in FY2010 to about 13 in the last few years, while the average number of FSAPs in the S29 approximately tripled from less than two to about five, raising their share of FSAPs from less than 10 percent to about 40 percent (Figure B1).

During FY2010–17, the direct personnel cost of FSAPs expanded—from a total of 22 FTEs in FY2010 to more than 55 FTEs in FY2017. The average cost per FSAP in the period FY2013–17, since the introduction of the 2012 Strategy, was about 3 FTEs —increasing from about two FTEs in FY2013 to more than 4 FTEs in FY2017. As shown in Figure B2, the increase was driven in particular by the high cost of FSAPs in the S5 in FY2015-17. The average cost of non-S29 FSAPs also rose from about 1.5 FTEs to nearly three FTEs.

Management has recently set a cap of 6 FTEs for individual FSAPs, with exceptions allowed in special circumstances with management approval, such as in the case of a first-time FSAP, the need for coverage of specific sector/issues that are critical for financial stability, and the size and complexity of a country’s financial sector. Since FY2012, there have been six FSAPs in which the cost exceeded the new cap, i.e., the most recent FSAP for each jurisdiction in the S5 category and the 2017 FSAP for Spain.



Source: IEO calculations; IMF staff documents.



Source: IEO calculations; Office of Budget and Planning (Time Reporting System and Time Reporting for Analytic Cost and Expenditure System).

25. **Several key factors related to context, timeliness, focus and follow-up have limited the value added of FSAP assessments.**

- **Context.** A number of authorities felt that FSAP templates were too generic and that teams did not have sufficient country knowledge to identify and quantify issues that authorities did not already know.<sup>11</sup> In the country case studies, officials sometimes complained that FSAP teams were prone to basing their advice on off-the-shelf techniques based on “international best practice” without adequately reflecting on country circumstances.
- **Timeliness.** In many countries, authorities noted that the assessment of threats to financial stability can become outdated within 18 to 24 months, or even more quickly, given financial markets’ inherent tendency to evolve rapidly and financial institutions’ ability to change their risk profile quickly. Authorities in most LICs and many non-S29 EMEs would prefer more frequent FSAPs.<sup>12</sup> Most of these countries have had only one or no FSAP since FY2010 (Figures 3a and 3b). Some authorities also indicated that the timing of FSAPs was driven by internal IMF processes and that sometimes it did not take place when it would have been most helpful (de Bolle, 2018).
- **Focus.** Most authorities interviewed for this evaluation thought that the usefulness of the FSAP would be enhanced by more selective coverage. Officials recognized that MCM has increased the amount of preparatory work preceding FSAP missions to identify key issues and vulnerabilities, but they were not consistently satisfied with the outcome. These officials felt there was too much attention to replicating work they had already done—like bank capital adequacy stress tests—and not enough on emerging issues like fintech where they would welcome more guidance. Many officials suggested that the IMF should move more boldly from broad coverage towards more selective strategic focus on areas where it may have developed new techniques and could bring more value added. More advanced consultation on the topics to be covered, and closer involvement of the ED’s office in the preparation of the mission would be helpful—as is good practice for Article IV consultations. On coverage, IMF staff said that efforts are being made to focus FSAPs on areas of particular relevance, but that there are limits since they must take care to ensure that FSAPs adequately cover each of the three standard components.
- **Follow-up.** Officials noted that attention to FSAP recommendations in Article IV consultations was most intense in the first consultation after the FSAP, when IMF staff generally asked about the implementation status of recommendations and included a table listing them in the Article IV staff report. However, this follow-up dissipated over

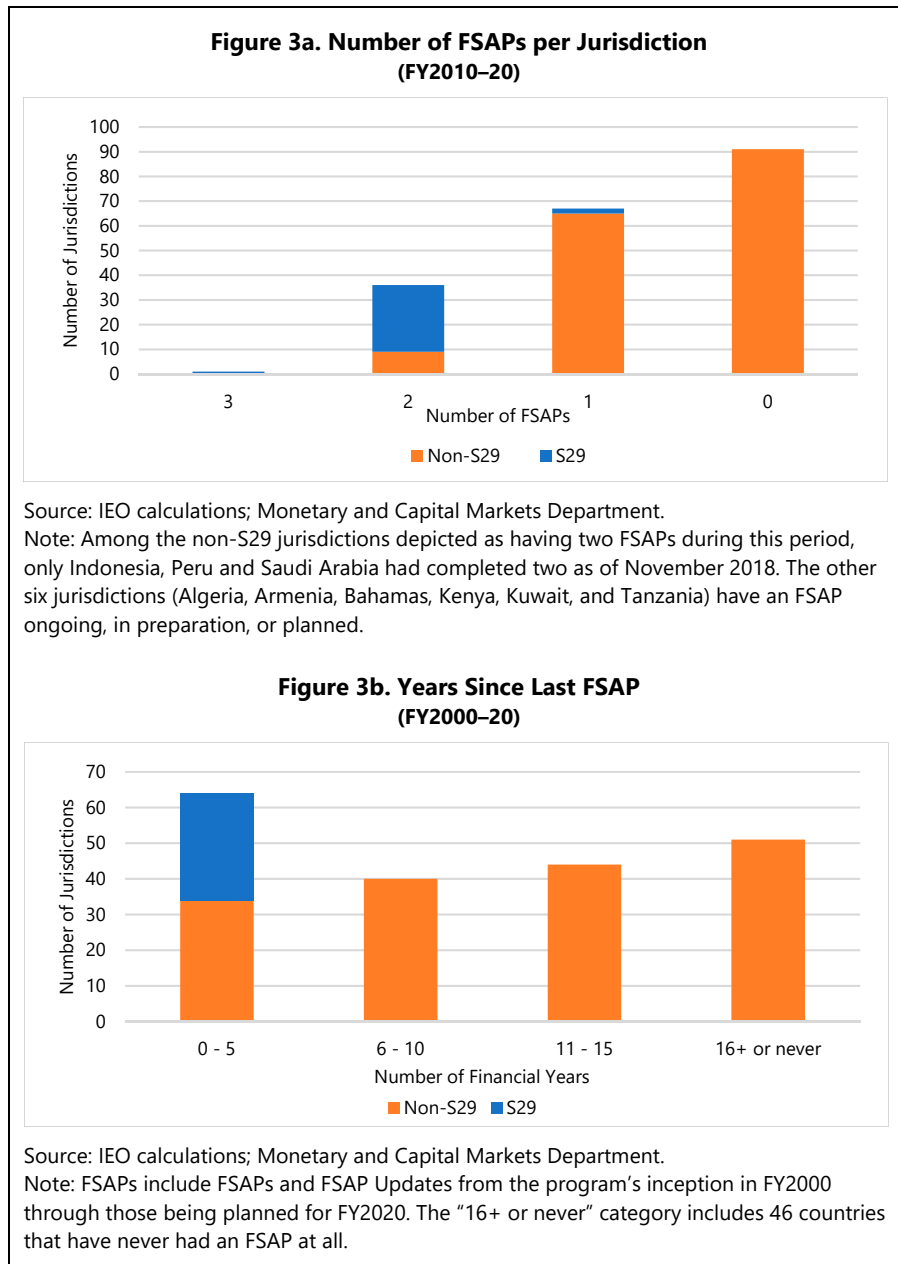
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<sup>11</sup> In fact, in many countries, authorities indicated that lack of country knowledge had led to inappropriate assessments and policy advice. See, for example, Anderson (2018b), Landau (2018), and Cheong (2018).

<sup>12</sup> According to the IEO survey of OED, 70 percent of LIC respondents and 38 percent of non-S29 respondents would welcome more frequent FSAPs.

time, and usually was quite limited by the second year. Also, there was generally little consistent follow-up on the FSAP’s risk and vulnerability assessments in subsequent Article IV consultations.

26. **Private sector analysts’ views of FSAPs are quite variable.** Interviewees generally recognized the high-level expertise involved in preparing FSAPs and indicated that they could be very valuable products, particularly in countries where information was limited or hard to access and the system was evolving rapidly. However, more generally these observers noted that the FSAPs were too infrequent and too guarded to be a useful source of information for gaining insight into evolving market risks, compared to market analysts’ reports.



27. **IMF staff are generally more positive than authorities about the value added of FSAPs, particularly in the S29.** More than 80 percent of IMF staff responding to the IEO survey believed “significantly” or “to some extent” that FSAPs provided value added in assessing financial stability risks in the S29, while only 60 percent of OED respondents (and less than half from AEs) agreed. Only one-third of OED respondents (and even fewer in the S29) thought that FSAPs helped improve stress testing models and tools. Staff, on the other hand, generally believed that FSAPs bring new insights and techniques. In interviews, they mentioned work on system-wide vulnerabilities (which often received inadequate attention from regulators with sector specific responsibilities) and innovations in new areas, for example, risks related to the asset management industry and to liquidity shocks. Authority and IMF staff views on the value added of FSAPs were more closely aligned in LICs and non-S29 EMEs, where authorities also appreciated FSAP contributions to financial development.

28. **IMF staff stressed lack of access to supervisory data as an important impediment to being able to fully assess vulnerabilities, for example through stress testing.** Authorities pointed to legal and practical constraints to sharing more information, particularly about individual institutions, and many stressed that they had made considerable efforts to provide information with due safeguards. Some, particularly in the S29, were skeptical about IMF staff’s ability to identify vulnerabilities that authorities were not aware of, even in countries that provided access to individual bank data. These authorities pointed out that IMF staff would not have the resources to independently assess the quality of assets or the reliability of liability classes. In fact, some country officials felt that IMF staff already received more data than could be effectively analyzed given time and resource constraints.

29. **Among EMEs and LICs, the organization of FSAPs is complicated by challenges in coordinating with the World Bank, whose mandate and internal processes are different than at the IMF.** The IMF is guided by the timeline for the corresponding Article IV consultation, while the Bank has less binding deadlines.<sup>13</sup> Authorities in these countries were also interested in the FSAP for supporting development of their financial systems. In 2017, the IMF launched the Financial System Stability Review (FSSR), a demand-driven, donor-financed instrument mainly directed to low- and lower-middle-income countries. FSSRs help identify a country’s financial vulnerabilities and catalyze technical assistance follow-up. FSSRs may thus help address some of the unmet demand for IMF engagement and expertise on financial stability issues.<sup>14</sup>

30. **A concern raised by many country authorities is the appropriate role of stress testing within the FSAP.** The IMF was an early leader in developing and spreading the use of stress tests,

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<sup>13</sup> In the IEO survey, half of IMF staff respondents reported that coordination with the World Bank was weak or needed improvement.

<sup>14</sup> So far, the World Bank has not been involved in FSSRs. However, there is an ongoing consultation with World Bank managers on the coverage, countries and topics. The World Bank also provides demand-driven TA on financial development.

first for banks and then for other segments of the financial sector. During the first years after the GFC, FSAPs helped authorities develop and conduct stress tests and played an important role in discussions on the need to strengthen capital and on the preparedness for crisis resolution. This role is widely acknowledged and appreciated.

31. **Increasingly, however, officials in the S29 and some other countries find that stress testing in the FSAP provides limited added value to their own stress testing work and would prefer an alternative, less burdensome and more strategic approach.**<sup>15</sup> In particular, authorities in most S29 and some other countries conduct regular stress tests on many aspects of their financial systems. Officials in this group of countries often see little value added from the FSAP stress tests every five years—particularly bank solvency stress tests—in addition to their own typically annual exercises. Authorities still provide the requested information and collaborate in preparing the IMF’s stress tests, and for the most part they find the IMF’s results useful to validate their own stress tests. Nevertheless, many officials would prefer that the FSAP team focus on providing an overall top-down assessment of the authorities’ own stress test methodology and practices, including suggesting alternative risk scenarios. IMF staff indicated that they bring innovations in conducting their own stress tests even in AEs, for instance via liquidity stress tests and the use of market price-based techniques and by covering a broader range of financial institutions, including insurance companies and mutual funds. They believe that the IMF’s independent stress tests have continued to add value consistently and are integral to the IMF bilateral surveillance.

## **B. Article IV Surveillance—Mainstreaming Macrofinancial Analysis**

### **Background**

32. **The coverage and integration of financial and macrofinancial issues in Article IV surveillance have been strengthened substantially since the EME crises of the 1990s.** Article IV consultations provide an annual opportunity for an assessment of financial risks, how financial factors connect with the real economy (macrofinancial linkages), and analysis of cross-border spillovers (making them also an instrument of multilateral surveillance).<sup>16</sup> Since the 1990s, there have been numerous Board decisions and staff guidance notes stressing the need for

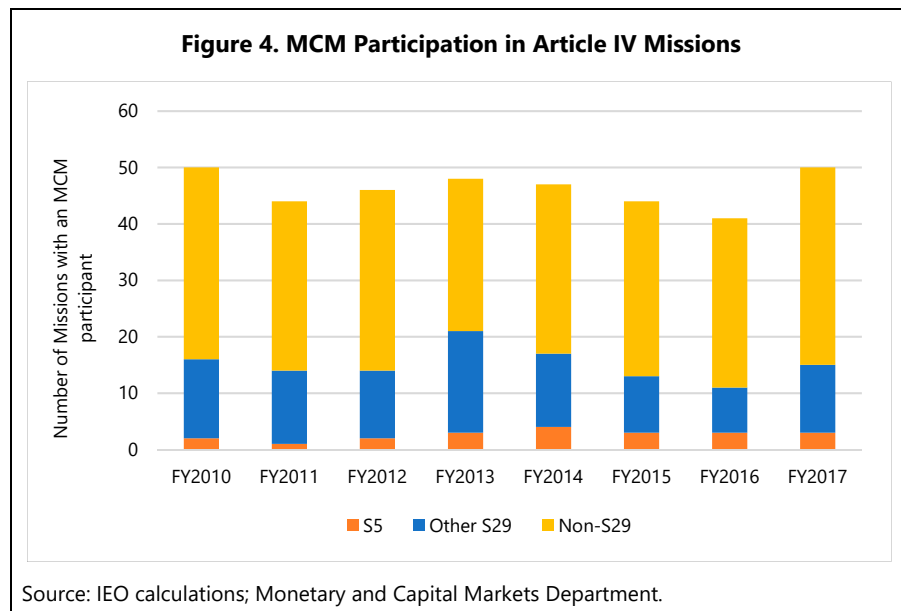
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<sup>15</sup> According to the IEO survey, there are major differences in what authorities from AEs, EMEs, and LICs get from stress tests conducted by FSAP teams. In the view of OED respondents, while 90 percent of LIC authorities learn about emerging risks and vulnerabilities, only 22 percent and 44 percent do so in AEs and EMEs, respectively. At the same time, while 74 percent and 60 percent in EMEs and LICs, respectively, consider that FSAP stress tests provide a useful validation of their own stress tests, only 44 percent of authorities in AEs do so.

<sup>16</sup> Article IVs also cover other financial sector issues. For example, the Fund has recently paid greater attention to the increased withdrawal of correspondent banking relationships from many member countries (IMF, 2017a). In collaboration with the FSB, World Bank, G20, and Financial Action Task Force (FATF), the IMF is supporting these members by providing policy advice, assessing implementation of standards, and building capacity to help strengthen regulatory and supervisory frameworks.

Article IV consultations to identify “conditions and developments in the banking and the financial system and markets that may impinge upon macroeconomic conditions and policies” and “macroeconomic conditions and developments that may have detrimental effects on the financial system” (IMF, 1998). Following the GFC, the Board identified the integration of macroeconomic and financial sector surveillance as an institutional priority.

33. **Staff reviews over the years have found that despite significant efforts and some progress, integrating financial and macrofinancial analysis remains a challenge (IMF, 2011; 2014b).**<sup>17</sup> These stock-taking exercises pointed at skills gaps, internal silos, and limited resources as key constraints in integrating financial and macrofinancial analysis in Article IV surveillance. They also emphasized lack of a unified theoretical framework for macrofinancial analysis and limits on data access as factors that are largely beyond the control of the IMF. Expertise to analyze macrofinancial linkages is scarce, and financial sector skills are located mostly in MCM. Area departments have relied heavily on MCM for support on these tasks. During FY2010–17, on average 46 or about one-third of Article IV missions each year had an MCM staff participant (Figure 4). MCM assigned its staff in consultation with area departments but was not always able to respond to the needs of country teams.<sup>18</sup>



<sup>17</sup> IMF (2014b), for example, concluded that financial and macroeconomic analysis remained fragmented, and that the lack of integration “reflects a longstanding tendency for the ‘generalist’ macroeconomic perspective to be largely divorced from the ‘specialist’ financial perspective [and] the absence of a unified model that links macro and financial variables....”

<sup>18</sup> The pattern of assignments within area departments appears imbalanced in some cases, e.g., there was an MCM participant in seven Article IV missions for Myanmar and six for Vietnam from 2010–17, but none for Thailand (although Thailand received significant financial sector TA during this period).



34. **The 2014 Triennial Surveillance Review (TSR) called for area departments to be “firmly in the driver’s seat for financial surveillance” and for “gradually shifting the profile of IMF economists to ensure they have adequate macrofinancial skills” (IMF, 2014b).** An internal report of a 2014 staff working group concluded that “financial and macroeconomic analyses remain fragmented due to the tendency of fungible-generalist macroeconomists to see financial surveillance as an MCM responsibility, and for MCM experts to look at financial issues divorced from the macro picture” (IMF, 2014a). Accordingly, the 2014 TSR called for “shifting the profile of Fund economists to ensure they have adequate macrofinancial skills through training and personnel policies” as well as “changing work practices to generate incentives and opportunities for individual staff to acquire and use the needed skills” (IMF, 2014b).

35. **To accelerate progress, following the 2014 TSR, the IMF launched an initiative to mainstream macrofinancial analysis in Article IVs.** This initiative placed the lead responsibility for macrofinancial surveillance with area departments, with support from MCM, SPR, and other functional departments, and provided specific guidance for fully integrated analysis of macrofinancial linkages and systemic risk in both the baseline and risk scenarios in Article IV reports. The initiative started with a pilot program for 24 countries in 2015, expanded to 66 countries in 2016, and was mainstreamed in 2018. As part of the pilot, there were also efforts to provide training for area department staff and to promote on-the-job learning through a targeted mobility program.<sup>19</sup>

36. **Even as the IMF sought to enhance financial surveillance in Article IVs in all member countries, MCM support—including participation in missions and review of their work—was focused on the S29 due to resource constraints.** Following the 2011 TSR, the IMF aimed to have an MCM participant in every S29 Article IV mission, but due to resource constraints, MCM staff has participated in only half of the Article IV missions to S29 countries (and only 20 percent to non-S29 countries). Similarly, each year in FY2013-17, MCM reviewed on average two-thirds of Article IV reports for the S29 but only one-fifth for non-S29. With the launch of the pilot initiative to integrate macrofinancial analysis into Article IVs, MCM, SPR, and RES boosted their contributions to the review process, supported teams by early brainstorming on key issues, and provided back-up on technical issues to teams while on mission (IMF, 2017b). As this initiative is now being mainstreamed, MCM increased the number of countries it plans to review each year to 100, focusing on policy notes prepared in advance of missions.

37. **The 2018 Interim Surveillance Review (ISR) found progress in integrating macrofinancial analysis into Article IV surveillance,** including a fuller discussion of

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<sup>19</sup> IMF staff estimated that area departments spent 16–20 FTEs per year on work related to the macrofinancial pilot program, while MCM dedicated 7 FTEs and other functional departments 7–8 FTEs to this work. Some of this increase was repurposed within departments, possibly from other financial surveillance activities. The pilot program assisted through on the job-training and direct support to area department teams. For example, MCM and SPR began brainstorming sessions on themes and country cases identified by area departments.

macrofinancial linkages and application of this analysis to inform policy advice (IMF, 2018a). Indeed, most IMF staff believe that the IMF's efforts to improve the integration of financial sector issues in Article IV surveillance is an initiative of critical importance to improve the quality of surveillance for all countries.<sup>20</sup> The 2018 ISR characterized the IMF approach as pragmatic with an emphasis on learning by doing and indicated that "considerable" progress had been made in integration of macrofinancial surveillance and incorporating lessons from pilot efforts.<sup>21</sup> At the same time, a 2017 IMF staff assessment of the quality of the macrofinancial analysis in pilot cases found a small decline in quality, as the number of countries increased from 67 cases in 2016 to 128 in 2017 (IMF, 2017c). The quality decline was concentrated among new cases, reflecting reduced support from MCM and SPR as resources focused on the pilot were phased out, as well as competition from other pilot programs for attention and resources in area departments.

### **Evaluation findings**

38. **This evaluation finds that while the integration of macrofinancial analysis in Article IV consultations has certainly expanded, quality remains uneven, with much of the coverage of macrofinancial linkages still quite limited in depth.** Takagi (2018) assesses the coverage and quality of financial and macrofinancial analysis in bilateral surveillance during 2011–17, based on the country case studies and a content and textual analysis of Article IV staff reports in a sample of 40 countries. Based on the review of 120 staff reports (three per country in the sample for 2011, 2014, and 2017), this study found that the coverage of financial issues in staff reports was already relatively high in 2011 and that it declined somewhat in S29 countries (perhaps because the urgency of financial issues subsided after 2011). On the other hand, coverage of macrofinancial linkages, which was much lower in 2011 (and almost nil in many non-S29 countries), rose significantly for all groups except for the G7. The most pronounced increase was between 2014 and 2017 in countries that were in the macrofinancial pilot. Participation of MCM in Article IV missions in non-S29 countries increased the coverage of financial and macrofinancial links, but such participation had little impact on coverage in S29 countries.

39. **Article IV analysis is generally better when it benefits from a recent FSAP or related TA activity, in countries covered by the mainstreaming pilot initiative, and/or when the Article IV mission is supported by an MCM staff member—all variables under the IMF's**

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<sup>20</sup> Specifically, 72 percent of respondents to the IEO survey of IMF staff thought it was an initiative of critical importance. In contrast, 16 percent thought that it was an important initiative but relevant only for relatively few countries; 5 percent thought that financial sector issues were already adequately covered in surveillance, and that the initiative had little or no value added (Monasterski, 2018).

<sup>21</sup> Sixty-three percent of respondents to the IEO survey of IMF staff reported that they had integrated financial vulnerabilities and risk "significantly" in Article IV surveillance, while an additional 31 percent said that they had done so "to some extent."

**control.**<sup>22</sup> Takagi (2018) found that about 15 percent of Article IV staff reports contained a full discussion of macrofinancial links, often supported by accompanying technical analyses. This indicates progress, since a decade ago the number would have been much lower. Many of the best practice cases are from Article IV consultations when there was a recent FSAP or a financial sector TA activity, indicating positive synergies. In fact, most IMF staff responding to the IEO survey who had worked on countries with recent FSAPs stated that FSAPs had played a role in the latest Article IV consultation, either “significantly” or “to some extent.” Also, in many of the best practice cases identified in Takagi (2018), the FSAP and Article IV teams shared senior members and the FSAP mission chief participated in the Article IV discussions. As a result, the macrofinancial coverage in the Article IV report was deep and extensive. On the other hand, the discussion in other reports was limited and sometimes pro forma (e.g., included macrofinancial references without a clear analytical basis, as if they were included just to tick a box).

40. **Country officials generally appreciated the increased attention to macrofinancial issues in bilateral surveillance but commented that the value added from Article IVs on financial issues is uneven and often quite limited.** While recognizing that some Article IV teams do excellent, detailed analytical and empirical work, authorities outside the largest and most prominent jurisdictions often felt that Article IV coverage of financial issues was limited, with inadequate understanding of market-related issues and insufficient expertise to follow up on issues raised in previous FSAPs.

41. **An important part of the problem seems to be the still limited integration between the FSAP and Article IV surveillance.** FSAPs are too infrequent to be relied upon to detect fast developing financial stability risks; while Article IV consultations typically do not have the breadth and depth of skills and resources to adequately identify and warn about financial stability risks. These characteristics would require determined efforts to change. FSAPs are too costly to the IMF and too burdensome to authorities to be conducted with high frequency. Article IV consultations cannot be transformed into pure macrofinancial surveillance as they have a broader set of issues to deal with, and extending the team and mission length to cover in depth all the important financial sector issues would require significant additional resources. It is therefore critical to build synergies and better integrate these two activities to deliver timely and effective bilateral financial surveillance.

#### IV. MULTILATERAL SURVEILLANCE<sup>23</sup>

42. **Multilateral financial surveillance seeks to warn the IMF membership about vulnerabilities and risks to the global financial system and in S29 jurisdictions, and to influence policies and the overall financial regulatory agenda to mitigate risks and**

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<sup>22</sup> The quality of the analysis is also higher for the S5, although it is not clear that this is so relative to the analysis of the corresponding authorities.

<sup>23</sup> This section draws on Cecchetti (2018) and Zettelmeyer (2018).

**strengthen resilience.** The key elements of multilateral surveillance are: the *GFSR*, which analyzes global financial risks and complements the conjunctural analysis of the global economy provided by the *World Economic Outlook (WEO)*; the EWE, which highlights key financial tail risks for a restricted audience of senior policymakers; and work with the FSB and SSBs, aimed at contributing to the design and implementation of global financial reform.

### **A. The *Global Financial Stability Report (GFSR)***

43. **The *GFSR* is the IMF’s flagship report analyzing global financial sector risks for a public audience.**<sup>24</sup> Chapter 1 provides an overview of key risks facing the global financial system and discusses policies to mitigate them. Analytical chapters dig deeper into market and institutional issues, and often serve as an early assessment of new challenges for the official community. Messages of the *GFSR* have in recent years been broadly consistent with the *WEO* (which had been a challenge in the past), and complementary to those of Article IVs in the largest S29 countries, except for some difference in emphasis. The *GFSR* is prepared twice a year by MCM with interdepartmental review and management guidance on topics and messages.

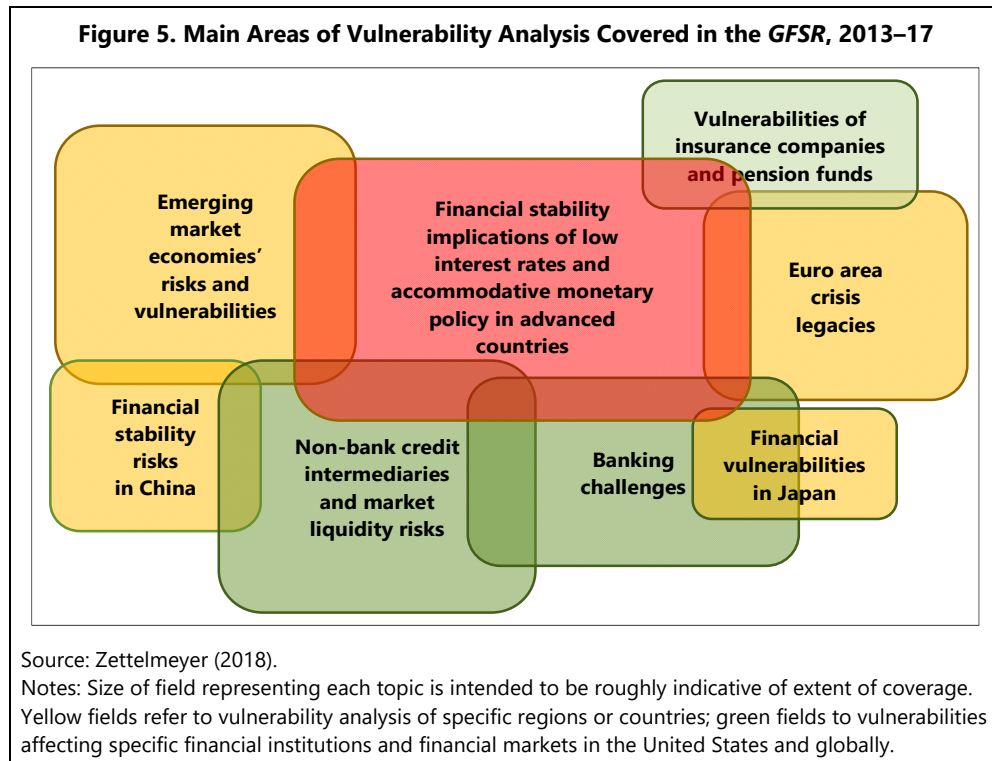
44. **The report is widely read and appreciated by central bank officials (and increasingly in finance ministries)—Chapter 1 for the identification and analysis of global financial risks, and the analytical chapters for providing in-depth investigation of narrower but salient financial stability topics.** Authorities value the *GFSR* as among the best surveys of the state of the global financial system and for bringing attention to new issues with insightful analysis. Authorities particularly appreciate the analytical chapters that are widely seen as bringing early, in-depth attention to emerging issues and serving as a reference for policy discussions. At the same time, authorities and other stakeholders indicated that there could be closer connections between the financial stability overview in Chapter 1 and the topics and messages in the analytical chapters, and that there could be more consistent follow up in subsequent *GFSRs*. Private sector readers are generally less enthusiastic, finding the narrative too long and too dense, the messages overly nuanced, and the biannual publication too infrequent to provide up-to-the moment views on market developments—although they did appreciate the deeper dive into some of the more difficult issues than usually available in market commentary.

45. **A perennial challenge for the *GFSR* is to bring timely attention to emerging risks.** In interviews, officials were generally positive that the risks and gaps flagged in the *GFSR* provided a careful analysis of difficult and contentious issues. Looking into this issue more systematically, Zettelmeyer (2018) classified the bulk of topics covered during 2013–17 within eight areas of vulnerability (Figure 5). Of central concern were the financial stability implications of sustained low interest rates in the U.S. and other AEs. Intersecting with this concern were risks associated with changes in the structure of financial markets, vulnerabilities of global financial institutions (banks,

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<sup>24</sup> In the IEO surveys, more than 90 percent of OED and 80 percent of staff respondents found the *GFSR* useful to understand global developments and risks. Also, OED respondents indicated that more than 80 percent of their authorities found it helpful to identify vulnerabilities and spillover risks.

non-bank credit intermediaries, insurance companies and pension funds), market liquidity risks, and vulnerabilities in specific regions and countries. Examples that were particularly influential include discussions of concerns over the European banking system (April 2016), China's shadow banking (April 2013), the asset management industry (April 2015), and market liquidity (October 2015).



46. **In hindsight, the *GFSR* did not flag some important risks before they materialized (Type 1 errors).**<sup>25</sup> Examples of Type 1 errors include the “taper tantrum” in the summer of 2013, the financial stability implications of the commodity price downturn in 2014–15, and the cross-border financial spillovers from increased uncertainty about China’s currency policy. In each of these cases, risks were extensively discussed in the *GFSR*, but only after the initial event. Thus, the possibility that a reversal of accommodative monetary policy in the U.S. might trigger financial instability was a recurring theme of many *GFSRs* in the 2013–17 evaluation period, but this attention began only after the May 2013 taper tantrum demonstrated this possibility. Similarly, the potentially serious corporate and sovereign distress in commodity exporting countries that could be unleashed by a collapse in commodity prices became a major theme in the *GFSR* only after the collapse of oil prices in the second half of 2014. Financial instability in Chinese equity and

<sup>25</sup> The *GFSR* also warned about many other risks that did not materialize (Type II errors). However, Type II errors are generally of less concern than Type I errors, since the key goal of the *GFSR* is to discuss how risks would impact financial markets and economies if they were to materialize and to suggest mitigating policies. Moreover, one cannot rule out that *GFSR* warnings triggered pre-emptive policy responses that avoided the risk or lessened the repercussions from its realization.

currency markets was not considered until after the 2015 turbulence in the context of China's move to a more flexible exchange rate regime.

47. **When discussing a risk, the *GFSR* is better able than most IMF publications to provide a candid presentation of the analysis and views of the IMF staff on difficult and contentious issues, while generally finding an appropriate balance between unvarnished assessments and necessary care to avoid exacerbating market tensions or even triggering turbulence.** First, the *GFSR* is a staff document, with the appropriate disclaimers about its analysis and policy considerations being those of the authors and not necessarily reflecting the views of the Board or national authorities. Second, MCM staff working on the *GFSR* do not need to maintain a relationship with national authorities and therefore are less susceptible to intellectual capture or pressures.

48. **Nevertheless, authorities from some countries whose financial systems were featured as having vulnerabilities were critical of specific narratives, claims and policy recommendations.** For example, some French and German officials were concerned about the *GFSR*'s discussion on the profitability of their banks (Landau, 2018; Anderson, 2018a) and some Chinese officials raised issues with the analysis of shadow banking and the risks of corporate debt (Dollar, 2018). They cautioned that the analysis does not adequately reflect local institutional frameworks and is sometimes based on models that are not transparent or well-explained. They also pointed out that empirical results cannot be reproduced because the *GFSR* does not share the necessary data. Some officials suggested that the *GFSR*'s coverage of difficult issues should be discussed with authorities ahead of circulation, giving an opportunity to correct misunderstanding or factual errors (Landau, 2018). Other authorities, however, thought that any such "review" would risk watering down the *GFSR*'s messages and hence diminishing its credibility.

49. **IMF staff are certainly aware of authorities' concerns about market sensitivity and analytical opacity.** MCM staff indicated that they are very careful with their messages to avoid heightening market instability and stressed that efforts were now underway to strengthen the analytical underpinnings and transparency of the *GFSR*. They also noted that the *GFSR* is finalized under tight deadlines that do not allow for consultation with authorities before publication. Drafts are circulated among staff, including country desks, although some area department staff mentioned that they did not get sufficient time to review the drafts and ensure that there were no factual errors or misunderstandings about the countries they cover.

50. **A related concern consistently raised by *GFSR* readers is that the presentation has relied quite heavily on complex and often non-intuitive empirical techniques.** For example, for most of the period, through October 2017, the organizing framework of the stability analysis of Chapter 1 of the *GFSR* was a Global Financial Stability Map (the "Spidergram"). The Spidergram aimed to address the main question that officials and other readers would be interested in: what are the most important changes in global financial stability that have taken place in the past six months? Most officials interviewed had difficulties understanding the Spidergram (as well as most of the accompanying graphs) and could not get an intuition of how and why stability risks had

changed.<sup>26</sup> More generally, readers would appreciate more access to the data being used and greater transparency concerning how the various metrics used are put together, in order to be able to judge their relevance and value.

51. **The GFSR team has been making serious efforts to address these concerns.** One clear improvement is that in the April 2018 *GFSR*, the Spidergram was replaced by a global Financial Conditions Index (FCI) and an assessment of "Growth-at-Risk." This new framework was explained in Chapter 3 of the October 2017 *GFSR*, a good example of close integration of the analytical and conjunctural work. The global FCI is based on a smaller number of financial indicators than the Spidergram and is used to forecast the distribution of GDP growth at one-, two-, and three-year horizons conditional on assumptions of financial conditions, i.e., an assessment of growth at risk (GaR). This framework adds rigor to the analysis and provides a more intuitive picture of how financial stability risks have evolved. More broadly MCM is seeking to be more analytically grounded and more transparent in presenting empirical results. Still, as the team continues to refine the models, a challenge will be to improve its overall readability, as many interviewees still found the presentation too technical and difficult to grasp, potentially reducing its influence.

52. **Another challenge faced by the GFSR (and the IMF more broadly) is the extent to which it engages with the intense debate on the overhaul of international financial regulatory architecture since the GFC.** The *GFSR* was at the forefront in calling for strengthening financial regulatory systems in the immediate wake of the GFC. In the last few years, however, the *GFSR* has generally played a more subdued role in commenting on remaining weaknesses and gaps in the regulatory framework, even as the debate continued among academics and policymakers.<sup>27</sup> The *GFSR* raised some of these issues, particularly by identifying emerging risks that deserved greater attention from the regulatory community, such as the treatment of the rapidly evolving asset management sector (April 2015). However, more broadly, its messages were often mild and sometimes lacked consistency, especially in the area of newly agreed standards. For example, the April 2014 *GFSR* observed that SIFIs had become larger following the crisis and called for enhancing their capital requirements to eliminate their funding cost advantage from a market perception that they were "too-big-to-fail." But when discussing the capital of the systemic banks, the October 2016 *GFSR* focused on meeting regulatory minimums without examining these standards. More recently, there has been some increased attention. The October 2018 *GFSR* takes stock of the progress achieved in advancing the post-crisis regulatory reform agenda and identifies areas where further actions are needed to complete the reform or to

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<sup>26</sup> As explained in Jeanne (2018), there are also methodological reasons to be skeptical of the Spidergram: it mixed information at very different frequencies, allocated variables to risk categories in non-transparent ways, and reflected judgment calls that are not made explicit.

<sup>27</sup> For example, Kashkari (2018) noted that "... the largest banks are still too big to fail, because they are bigger and more concentrated than ever.... The most efficient way to protect taxpayers would be to force the largest banks ... to double their current levels of capital." Goodhart (2017) discussed the need to revisit capital requirements, the increasing concentration in the banking industry, and incentives for board members and managers, noting that "[t]he regulatory framework should be refocused towards ... reforming incentives."

address new risks. Concerns in this area were also highlighted in a recent blog by the Managing Director (Lagarde, 2018).

## B. The Early Warning Exercise (EWE)

53. **The EWE consists of confidential presentations by the IMF and the FSB to about 50 governors and ministers at the IMF's Annual and Spring Meetings.** It was set up in 2009, at the request of the G20, to identify tail risks, mainly on macrofinancial and financial stability issues, and to connect the dots between different markets, sectors and countries that may play a role in amplifying and propagating these risks. The IMF's presentation is given by the First Deputy Managing Director (FDMD) and the FSB's by the Chair of the Standing Committee on the Assessment of Vulnerabilities (SCAV).

54. **Officials who have attended the EWE presentations indicate that the IMF presentation is thought provoking and generates lively discussions by taking on outside-the-box issues.**<sup>28</sup> Between 2013 and 2016, the IMF's EWE topics tended to focus on macrofinancial issues. Many of the topics were picked up by subsequent *GFSRs*, *WEOs*, and other staff work. In several instances, the EWE succeeded in identifying and thinking through risks that later materialized—for example, discussing the risks of unwinding unconventional monetary policy in April 2013 one month before the taper tantrum. Since 2016, by contrast, IMF presentations have generally focused on risks related to political developments, technological change, fragmentation, and the decline in trust, topics which, although less closely related to the macrofinancial agenda, elicited great interest and again seemed quite prescient.<sup>29</sup> The parallel FSB presentation has consistently focused more strictly on regulatory issues and financial risks and seems to prompt less discussion from the audience. This is in part because much of the material is already well known to the participants since it is reviewed in advance by the SCAV members.

55. **A continuing challenge is how best to coordinate the IMF and FSB contributions to the EWE.** There is early consultation on the choice of topics, and sharing of work in progress, but the two presentations are essentially prepared in parallel by different processes. In addition to the gap in the choice of topics, staff from both organizations pointed to differences in governance and in working processes as precluding a more integrated product. While the IMF's EWE is prepared by an independent staff team, the FSB's presentation is rooted in the views and analysis of its members.<sup>30</sup> It is also circulated to the entire SCAV on a no-objection basis prior to the presentation. Senior IMF officials acknowledged that there could be benefits from greater coordination but cautioned that the two institutions followed quite different practices and

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<sup>28</sup> According to the IEO survey, more than 90 percent of OED respondents who expressed a view indicated that their authorities found the EWE presentation useful.

<sup>29</sup> An exception was the IMF presentation at the October 2018 EWE, which did have a clear macrofinancial focus.

<sup>30</sup> The IMF's EWE presentation is prepared by an ad hoc team that operates outside the usual departmental structure of the IMF, is not subject to the interdepartmental review process, and reports only to the FDMD.



highlighted the risk that a more integrated product would limit the IMF's capacity to provide a timely, up to the moment presentation and to raise out-of-the-box concerns.

56. **Some authorities are satisfied with the EWE as it is, while others see value in seeking greater synergies between the IMF and the FSB.** Some officials believe that the EWE is already achieving what was intended from such an exercise—generating an informed exchange of views about tail risks among the world's highest finance officials. The G20-appointed Eminent Persons Group recently suggested that the EWE could serve more directly to focus senior policymakers' attention on "major conjunctural risks and tail risks in the global system" and "most importantly ... facilitate discussions about policy directions and concrete actions to mitigate the key risks and vulnerabilities flagged" (G20, 2018). This would suggest a more robust link between the IMF and FSB presentations, to provide a thorough assessment of financial stability risks that combined the insights and expertise of the two institutions.

57. **A second challenge is how to maximize the broader impact of an instrument that by design is kept in very limited circulation.** Less than one-third of member countries have direct access to the EWE presentations. Even in those countries whose high-level officials attend the EWE session, most senior officials do not know what was discussed in that restricted meeting. There is a payoff to keeping the attendance at the EWE meeting very limited, as this allows for presentation of particularly sensitive issues and provides an arena for a vigorous exchange of views among principals, but it would also seem important for messages to be disseminated more broadly without compromising confidentiality. Senior IMF staff are aware of the challenge. They pointed out that EWE work is already being used in developing the IMF's work agenda, that it is often used to select topics for subsequent *GFSRs*, and that outlets are sought for key messages in suitable format for a wider audience—including blogs and speeches.

### C. Collaboration with Financial Regulatory Agencies

58. **The IMF has made important contributions to the post-crisis financial regulatory reform process.** As a member or an observer in the FSB and SSBs,<sup>31</sup> its main roles have been to provide a global perspective on macroeconomic and macrofinancial risks, to provide analysis of emerging issues and to represent the concerns of the majority of IMF members that are not members of the FSB or SSBs, while leaving detailed rule-making to the national officials.<sup>32</sup> Examples of areas where the IMF made important analytical contributions include the revision of the Basel Core Principles, sovereign/banking linkages, applications of Basel III standards to emerging market and developing countries and macroprudential frameworks. Also, since 2009, at

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<sup>31</sup> These include the Basel Committee on Banking Supervision (BCBS), Committee on Payments and Market Infrastructures, International Association of Deposit Insurers, International Association of Insurance Supervisors, and International Organization of Securities Commissions (IOSCO).

<sup>32</sup> This approach is consistent with the 2008 letter between the Managing Director and the Chair of the Financial Stability Forum (precursor of the FSB) on the respective roles of the two institutions.

the request of the G20, the IMF and the FSB have been leading the Data Gaps Initiative addressing information gaps and deficiencies uncovered by the GFC. The IMF has also co-authored several papers with the Bank for International Settlements (BIS) and FSB on financial stability risks and policy implications (e.g., IMF-FSB-BIS (2016) on macroprudential policies).

59. **Senior officials at the FSB and SSBs indicated their appreciation for the IMF’s analytical work, which contributed to the design of reforms and to generate support for them.** The IMF brings an independent view to the discussions on standards, since it is not a directly interested party. Being more removed than national regulators from the regulated institutions, it is less susceptible to political pressure. Moreover, it can bring the concerns of non-FSB members to the table and has at times helped national delegations reach consensus. Nevertheless, the IMF has appropriately not been involved in the detailed negotiations on standards conducted by national representatives. In recent years, the IMF has scaled back its direct involvement in FSB/SSB meetings and working groups due to resource constraints, but its analytical contributions remain relevant.

60. **The IMF helps monitor the implementation of agreed standards and codes.**<sup>33</sup> The FSB and SSBs consider this one of the IMF’s key roles. On the other hand, some senior officials suggested that the presence of IMF staff in FSB/SSB meetings could constrain the openness with which participants were willing to discuss their countries’ regulatory/supervisory weaknesses, since these weaknesses may be conveyed to IMF staff conducting bilateral surveillance. At the same time, the IMF may feel constrained to criticize agreed or even proposed regulations due to its status as member/partner of the regulatory bodies. IMF staff did not share these concerns about a chilling effect or possible conflicts of interest in participating in FSB/SSB meetings.

61. **One area where there seems to be considerable scope for the IMF to play a greater role relates to post-implementation impact assessment.** To date the Fund’s role has been relatively limited, as impact assessments have either been focused on individual institutions, requiring access to granular supervisory data, or on areas not at the core of the IMF’s expertise.<sup>34</sup> But there are areas where the IMF could play a more prominent role. In particular, leveraging its FSAP and Article IV work, the IMF has a clear comparative advantage, working closely with the FSB, SSBs, and BIS, to assess the macrofinancial impact of reforms at the country level. A recent

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<sup>33</sup> The IMF also works closely with FATF, the standards setter for anti-money laundering and combating the financing of terrorism (AML/CFT), to conduct assessments of member’s compliance with AML/CFT standards. During the past 15 years, the IMF has been involved in more than 70 assessments, many of which are conducted by the Legal Department. Since 2012, Article IV surveillance must also include an AML/CFT assessment when these issues are judged relevant for domestic stability or when they can have a significant influence on the effective operation of the international monetary system. Additionally, FSAPs, to the extent possible, must incorporate an AML/CFT assessment conducted within 18 months of the FSAP mission. However, a 2014 review found that coordinating the timing of inputs from the FATF was a challenge since their assessment cycles were different than for the FSAP (see IMF, 2014d).

<sup>34</sup> The FSB has been tasked by the G20 to lead this work. Two sectoral studies now underway are on the impact of reforms on infrastructure finance and on credit to small and medium enterprises.

example of such work is provided by the 2017 FSAP for Peru, which looked at the impact of more demanding bank capital adequacy standards on credit availability. The Fund would also have a comparative advantage at looking at the cross-border and global impact of regulatory changes and in preparing global stress tests focusing on interconnectedness and spillovers.

62. **Increasing attention to such work would certainly face challenges.** By its nature, such work is quite resource intensive at a time when MCM resources are stretched. In addition, limited access to data remains a key constraint to greater IMF contributions at the global and country levels. MCM staff noted that greater access to granular data on G-SIFIs would be needed to enable the IMF to significantly extend its work on these issues.

## V. ANALYTICAL TOOLKIT<sup>35</sup>

63. **As called for in the 2012 Financial Surveillance Strategy, the Fund has taken part in broader efforts in the economics profession to upgrade the analytical and empirical techniques used for analyzing macrofinancial linkages and financial stability risks.**

Considerable advances have been made since the GFC in macrofinancial modeling, in building risk indicators and in developing tools to assess financial stability, although there is a widespread sense that this agenda remains a work in progress. The post-crisis academic literature began to model systemic financial crises by granting a more important role to financial intermediation and liquidity risks.<sup>36</sup> The U.S. Federal Reserve and other AE central banks continued to introduce financial factors into their forecasting models as exogenous shocks to risk premia and started to develop new models to study specific questions at the frontier of macroeconomics and finance. Separately, the BIS was a pioneer in research suggesting that excessive credit growth is a robust early indicator of future economic and financial trouble, and its measure of the credit gap is widely used.

64. **A background paper for this evaluation (Jeanne, 2018) assessed the extent of the Fund's contribution to this developing field.** It found that the Fund has made important contributions in areas such as macrofinancial modeling, indicators to monitor financial risks, and tools for stress testing, but that its cutting-edge contributions have been limited compared to work done in central banks of the major AEs—a perception broadly shared by academics and senior officials interviewed for the evaluation.

65. **An important point of attention for Fund research has been macrofinancial modeling.** For example, MCM has developed a Global Macrofinancial Model (GFM) for use in the *GFSR* and elsewhere while RES has incorporated financial frictions into its Global Integrated

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<sup>35</sup> This section draws on Jeanne (2018).

<sup>36</sup> See, e.g., Gertler and Karadi (2011); Brunnermeier and Sannikov (2014); Gertler and Kiyotaki (2015) for academic contributions; Chung and others (2010), from the Federal Reserve; and Drehmann and Tsatsaronis (2014) from the BIS.

Monetary and Fiscal Model (GIMF) and other models used for scenario analysis in the *WEO*. Meanwhile, the IMF has been at the forefront of research on the relationship between excess credit growth and future financial or macroeconomic problems. The MAPMOD framework, building on this line of research, was specifically designed to study vulnerabilities associated with excessive credit expansions and asset price bubbles, and the consequences of different macroprudential policies that attempt to guard against with such vulnerabilities. More recently, the October 2017 *GFSR* introduced the GaR approach, discussed above.

66. **Notwithstanding areas of excellence, the IMF macrofinancial modeling has not advanced as quickly as that in several AE central banks.** IMF models have not been widely used: the MCM model is generally seen as too much of a “black box” while the GIMF’s inclusion of financial frictions is quite ad hoc. The general approach of central banks has been to develop a “suite” of relatively complex, country-specific models that can be used to analyze particular macrofinancial linkages. The IMF has also developed a variety of tools, e.g., a DSGE model was used to examine how the impact of a housing price correction in Canada could be magnified if combined with tighter financial conditions, and a model that combines standard macroeconomic relationships with the stress testing approach was used to study the interplay between banking stability and the macroeconomy in Brazil. However, more typically the IMF research program focuses on developing generic tools that can be used across different countries—a more difficult task especially since these tools need to be accessible to desk economists with little guidance from researchers. The GaR framework, while still work in progress, is an example of such a tool.

67. **A second area of focus for IMF staff has been to develop a growing battery of indicators to monitor financial risks at the global and country levels, but using these effectively has proven a challenge.** The IMF toolkit now contains more than 20 such indicators that are used in multilateral surveillance and in Article IV consultations. But these tools are not applied consistently or coherently, in part because their use requires experience and judgment as to which approach to use in which circumstance. Also, IMF staff interviewees indicated that for some tools there are only a handful of people who really know how to implement them. In an IMF staff survey, mission chiefs asked about how IMF staff could strengthen their understanding of macrofinancial linkages pointed at the need to better disseminate best practices and analytical toolkits (60 percent and 62 percent, respectively) (IMF, 2018a). Ongoing efforts to improve knowledge management may help, but hands-on training and better inter-departmental cooperation are also needed. In addition, it may be helpful to streamline the set of tools. In this respect, the work done to enhance the internal Vulnerability Exercise provides an example of an integrated approach that can be applied consistently across countries to give a sense of relative risk exposure.

68. **The IMF was a leader in developing and using stress testing following the 1990s EME crises, but many central banks have now caught up or taken the lead.** The Fund’s core approach relies on a top-down solvency stress test based on similar stressors across countries and over time, allowing for cross-country comparisons. Since the GFC, central banks in many of the

S29 have developed their own stress test tools. Often, they devote considerably more resources to the development of these tools than the IMF could, and the tools take into account the characteristics of their own financial sectors. Also, stress tests conducted by central banks take advantage of their access to confidential supervisory data from individual banks, and they focus on stressors that are most relevant to their own economy, e.g., changes in monetary policy or developments in their domestic housing market. As a result, in many AEs and some EMEs, stress tests conducted by IMF staff (usually as part of FSAPs) are sometimes seen by country officials as less informed and less relevant than those conducted by national authorities.

69. **The Fund has responded to the challenge by focusing research on innovations in its stress testing tools in areas that do not require confidential information on individual institutions.** For example, it has developed stress tests that make greater use of market price-based, publicly available data and has emphasized cross-sectoral stress tests to check for vulnerabilities that can fall between the cracks in the national context. Another area of potential comparative advantage for the IMF would be cross-border stress testing, e.g., global liquidity stress tests that examine the extent to which liquidity shortfalls in particular financial markets are transmitted across markets, institutions and countries, and the resilience of national and global financial safety nets to such stresses—but the feasibility and value of such work would depend on increased access to granular data on G-SIFIs.

70. **Over the past couple of years, the IMF has been working hard to gain expertise in new fintech areas, although it is not generally regarded as a cutting-edge source of analysis and expertise and its precise role remains to be established** (Demekas 2018). Given the rapidly evolving fintech ecosystem, there is significant demand from a wide range of countries for advice and assistance in designing their policies, regulations and monitoring of risks in these areas. The IMF has worked with the World Bank to develop the Bali Fintech Agenda (IMF, 2018b) that sets out a framework to help members consider how they will be impacted by fintech developments and how they should respond. An important next step will be to determine precisely what the IMF itself can and should contribute. Senior IMF officials stressed that the lead on rulemaking would lie with the FSB and SSBs, while the IMF would focus on developing the knowledge and techniques to advise its membership on how to handle the risks and opportunities from fintech in areas of IMF comparative advantage, such as controlling financial risks, assessing implications for monetary policy and financial stability, and analyzing cross-border aspects.

71. **The Fund's work developing its financial toolkit would benefit from more integration across departments and from building a larger pool of expert financial economists.** RES and MCM run largely separate research programs, which in part complement each other. But they have not developed shared research goals, nor do they work together to facilitate the absorption and integration by area department staff of the tools that they develop. The IMF needs to invest more resources to facilitate the development and peer review of analytical tools such as the GFM to make these tools more credible in the macrofinancial stability community.

## VI. TALENT MANAGEMENT<sup>37</sup>

72. **The IMF has continued to upgrade its financial sector skills and expertise, but the availability of knowledge and experience still constrains the quality and effectiveness of financial and macrofinancial surveillance.** Efforts to upgrade staff skills date back nearly two decades but remain a work in progress.<sup>38</sup> The IMF needs to staff three broad interrelated but distinct activities:

- technical work on specific financial sector activities such as banking, insurance, or security markets, conducted by financial sector experts (FSEs);
- macrofinancial and financial stability analysis at the country and global level, for the most part conducted by fungible macroeconomists; and
- analytical work on financial economics (including research, development and implementation of assessment tools, and training of fungible economists), preferably conducted by expert financial economists.

Some staff straddle more than one skill set, and some tasks require more than one type of skill. The IMF faces different challenges in recruiting and retaining, managing and developing each of these categories of staff.

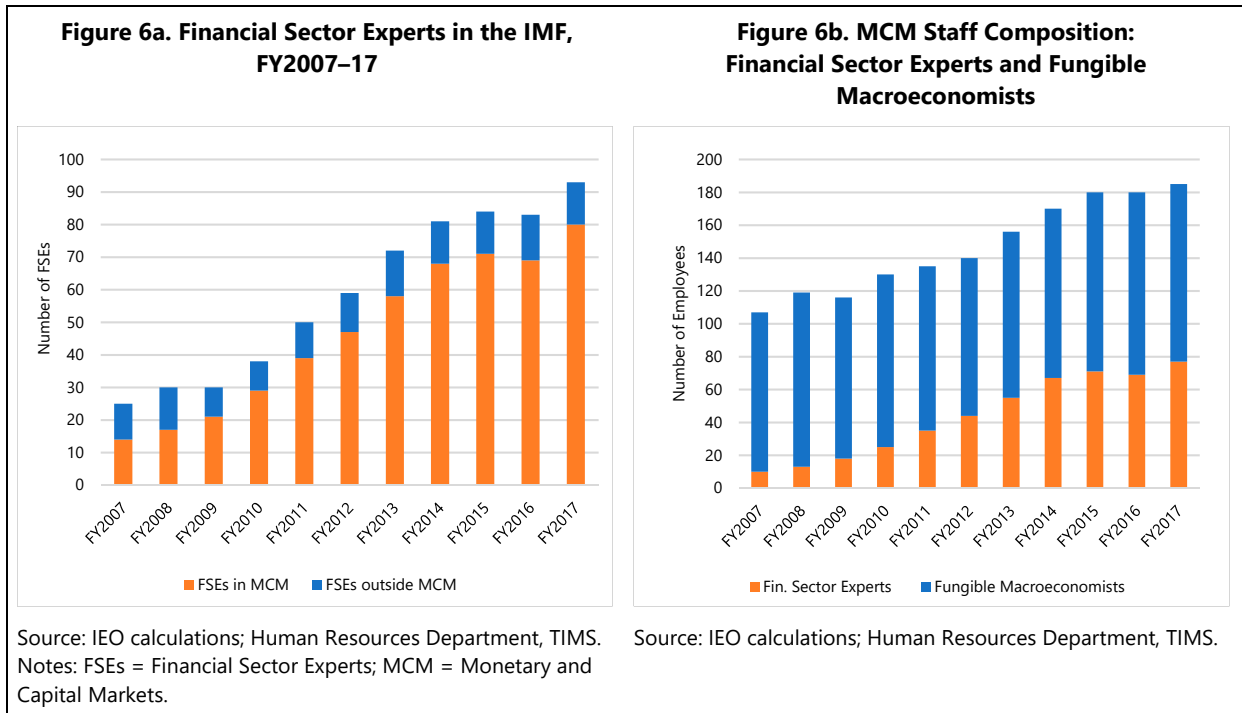
73. **Over the last decade, the number of FSEs has more than trebled to about 90, mostly working on FSAPs and technical assistance.** Most of these experts were recruited by MCM at mid-career from central banks, supervisory agencies and on a few occasions from the private sector. These FSEs now represent about half of MCM professional staff (Figures 6a and 6b).<sup>39</sup> In general, MCM has been able to build a strong cadre of experts, although it has faced recruiting difficulties in some emerging areas, such as cyber security and fintech, which require technical skills that are in high demand everywhere.

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<sup>37</sup> This section draws on Stedman (2018).

<sup>38</sup> The 2001 Lipsky Report, the 2005 McDonough Report, IMF surveillance and FSAP reviews in 2008, 2011, and 2014, and IEO evaluations in 2006, 2011, and 2014, all pointed to the need for more financial sector experts and to upgrade the macrofinancial skills of IMF macroeconomists.

<sup>39</sup> This includes FSEs on staff as well as experts on long-term contracts to provide TA while based at IMF headquarters. For FSAP (and TA) missions, MCM also draws on short-term consultants. These short-term experts come from central banks or supervisory authorities and have the necessary knowledge and credibility, but this arrangement creates problems of continuity.

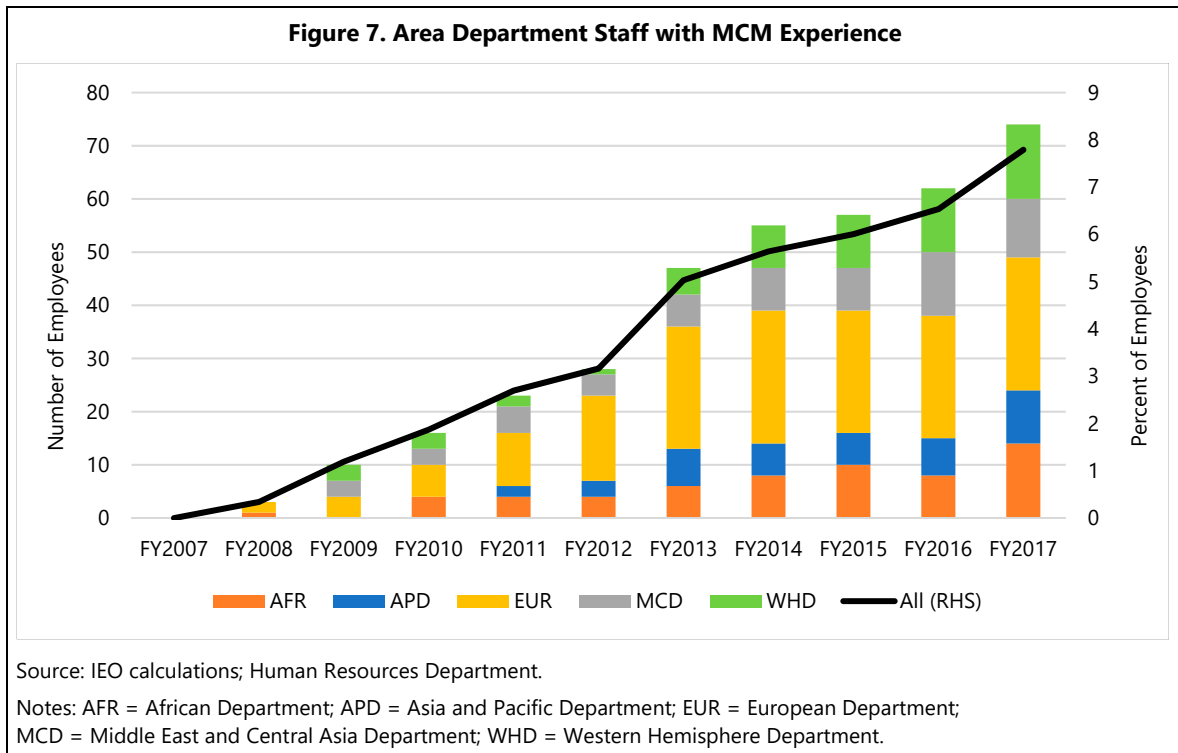


74. **Fungible macroeconomists make up a large part of IMF staff.** About 700 fungible macroeconomists in area departments do the bulk of Article IV surveillance work, which is now expected to include macrofinancial analysis. In addition, there are nearly 600 fungible macroeconomists working in other parts of the IMF, including over 100 in MCM. The range of macrofinancial skills among these staff vary widely, with only a small share likely capable of conducting the sophisticated macrofinancial work needed for risk analysis in FSAPs.

75. **Since the GFC, the IMF has worked to build the financial and macrofinancial skills of this group of economists through training, internal and external mobility and recruitment.** The Institute for Capacity Development expanded its courses on financial issues, and in 2015, it launched a structured training curriculum on macrofinancial analysis, which by end-2017 had been attended by about a quarter of area departments' fungible macroeconomists.<sup>40</sup> The IMF has also encouraged rotation of fungible macroeconomists to MCM to provide an opportunity for on-the-job-training. IMF staff responding to the IEO survey indicated that learning through experience on the job was most helpful in developing skills and expertise on macrofinancial issues. Mobility efforts have helped more than double the share of area department economists with MCM experience since FY2012, to over 8 percent (Figure 7). On the other hand, external assignments in the private sector have declined since rules were tightened in 2011. Finally, recruitment efforts yielded a modest flow of new fungible economists with macrofinancial skills—

<sup>40</sup> Participation in the IMF's structured curriculum for macrofinancial analysis grew very fast initially; it declined sharply in FY2017 and partially rebounded in FY2018. More broadly, participation in internal training focused on financial issues overall began a decline in FY2015 but recovered slightly in FY2018.

less than 15 per year, half entry-level and half mid-career, representing about one-quarter of new hires. Again, there has been little success in bringing in economists with private market experience, especially at the senior level.



76. **The efforts to upgrade the macrofinancial skills of fungible economists seem to be bearing fruit, at least based on self-assessments.** There is no comprehensive data on the financial skills of IMF staff. However, the IEO survey provides a picture of how IMF staff assesses its own skills: half of respondents considered themselves to be macroeconomists with significant financial sector expertise, and 30 percent reported that they had a degree either in finance or in macroeconomics with a specialization in finance.<sup>41</sup> More than half reported that they were adequately qualified or expert in four of the five macrofinancial skill sets that the IEO survey addressed. Two-thirds of respondents felt adequately qualified or expert in integrating financial variables in baseline projections and quantifying the possible macroeconomic impact of financial sector risks. Eighty percent felt that they were adequately qualified or expert at interacting with authorities in a dialogue on relevant financial sector issues. On the other hand, staff were least comfortable with their skills related to simple stress testing for banks, admittedly a more specialized field. Sixty-three percent judged themselves minimally or not qualified (and even fewer believed themselves likely to be able to conduct sophisticated stress testing in advanced jurisdictions, which require years of training and experience). Encouragingly, 72 percent of

<sup>41</sup> The 400 respondents are likely more knowledgeable and interested in financial issues than the overall population of about 1300 economist and specialist staff at grades A12-B4 who received the survey.



respondents felt that financial and macrofinancial skills contribute significantly or to some extent to career advancement in the IMF.

77. **However, the IMF still has work to do to make macrofinancial analysis a central part of the IMF staff's skillset.** In addition to the gaps revealed by the IEO survey, more than half of mission chiefs responding to a 2017 IMF survey pointed to lack of financial expertise on country teams as one of the main challenges for mainstreaming macrofinancial integration; they also favored more MCM participation in missions (IMF, 2018a). Authorities in many countries, including but not limited to officials in S29 central banks, perceive IMF staff expertise and experience deployed on financial sector issues, particularly in Article IV consultations, to be not on par with their own staff (Takagi, 2018).<sup>42</sup> Central bank officials interviewed, particularly in S5 institutions, suggested that they have been more successful in skilling up through recruitment of recent graduates with financial training and people with market experience. The Fund has had less scope to upgrade through hiring, given its low staff turnover and the fact that the overall size of the IMF has been capped for the past decade. The IMF has had therefore to rely more on training and especially on on-the-job experience.

78. **There is a sense both within and outside the IMF that the institution needs a deeper pool of expert financial economists to support and contribute to country work, and to undertake cutting-edge analytical work.** This is a longstanding issue that has been discussed in previous IEO evaluations (e.g., IEO, 2011) as well as IMF reviews of surveillance (e.g., IMF, 2014b). A shortage of such staff is one factor behind the fact that the Fund has at times been overtaken by central banks in developing cutting-edge techniques, as noted in the previous section. In addition to helping advance the frontier on analytical tools, expert financial economists could also play a useful role within area departments by raising the level of analysis of and engagement on financial issues in bilateral surveillance.

79. **However, HR policies, in particular the compensation structure and mobility requirements for career progression, have made it hard for the IMF to attract and nurture economists with high-level financial and macrofinancial skills.** In interviews, managers and financial economists in central banks, academia, and the private sector indicated that IMF salaries are not competitive enough to attract recruits with special, high-demand skill sets. Moreover, the IMF does not offer an attractive career path for someone who wants a career as an expert financial economist—since most IMF promotions beyond a certain level require broader experience, including mission work as a fungible economist. Such mobility requirements, along with the pressures of operational work, make it difficult for financial economists, especially researchers, to develop their expertise. Indeed, there are examples of highly respected IMF

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<sup>42</sup> According to IEO surveys, OEDs were more confident than authorities regarding IMF staff skills. Half of OED respondents reported that IMF staff working on Article IV teams were “well-qualified to analyze financial and macrofinancial issues,” but this ranged from almost 70 percent among OED LIC respondents to about one-third of OED AE respondents (another one-third of whom still found that IMF staff was only “minimally qualified” to perform this function) (Monasterski, 2018).

financial economists who chose to move to other institutions. There is some scope for promotion to senior levels through the “guru” track, but numbers are strictly limited, and this track has generally been aimed at specialists rather than financial economists looking to progress to senior managerial positions.

80. **The IMF is in the process of developing a new HR strategy that will provide the opportunity to address these issues.** As part of this strategy, the institution is considering ways to facilitate recruiting and retaining staff with macrofinancial skills, including by establishing a career track for experts including financial economists. Projections for higher staff turnover in coming years, due to expected retirements, may also provide greater scope for recruitment of staff with expertise in financial economics and related areas.

## VII. CONCLUSIONS AND RECOMMENDATIONS

### A. Conclusions

#### Strategy, priorities, and resources

81. **IMF financial surveillance has been tasked with a much more expansive role since the GFC in the context of a broad overhaul of the international financial architecture.** A series of Board decisions gave the Fund a clearer oversight responsibility over financial sector issues at the bilateral and multilateral levels, including for cross-border spillovers, and made periodic financial stability assessments mandatory for the S29. These decisions reinforced the central role of the IMF in global oversight of macrofinancial developments and in detecting vulnerabilities and promoting resilience. At the same time, a framework was established for an appropriate division of labor and cooperation between the IMF and the FSB and SSBs to develop and promote needed reforms and monitor agreed standards.

82. **The IMF has worked hard to implement its ambitious 2012 Financial Surveillance Strategy consistent with these increasing responsibilities.** The three priorities have been to strengthen the analytical underpinnings of macrofinancial risk assessments and policy advice, upgrade the instruments and products of financial surveillance to foster an integrated policy response to risks, and to engage more actively with international organizations and other stakeholders to improve the traction and impact of financial surveillance. Among other initiatives, in pursuing this strategy, the IMF has invigorated its efforts to integrate financial and macrofinancial analysis in surveillance. These strategic directions are well understood and supported by the membership.

83. **The IMF has also tried to address the organizational impediments and cognitive biases that hindered its performance in the run up to the GFC.** Attention has been paid more systematically to financial stability and macrofinancial risks in both bilateral and multilateral work. And considerable efforts have been made to upgrade financial sector skills of IMF staff.

84. **While these initiatives have not yet been tested by a major crisis, this evaluation concludes that the IMF's efforts have yielded a substantial upgrade of its financial surveillance work, particularly in areas given institutional priority.** The special attention given to systemically important financial sectors in the FSAP program has provided high-quality in-depth assessments as countries themselves have strived to make their financial systems more resilient. The Fund has contributed to developing new diagnostic tools (such as a broad range of stress tests) and to explore new policy approaches (such as macro prudential tools), as well as bringing both to the broader membership. Article IV surveillance has stepped up attention to macrofinancial linkages. And the *GFSR* and *EWE* are increasingly respected as leading sources of insights on the global financial system.

85. **While recognizing these achievements, this evaluation finds that progress in raising the quality and impact of the IMF's financial surveillance has been uneven.** The expansion of products and activities has presented the Fund with difficult trade-offs between bilateral and multilateral surveillance, between S29 and other member countries, and between financial surveillance and other activities, including emerging macro-critical issues. As a result, the mainstreaming of macrofinancial analysis into Article IV surveillance remains a work in progress; FSAP coverage of countries outside the S29 has been reduced as priority has been given to the mandatory FSAPs; lack of integration of Article IV and FSAP work remains a concern; the traction of multilateral surveillance could be enhanced; the Fund is making only a limited contribution in post-reform impact assessments; and the Fund is no longer viewed as a clear leader in developing tools for assessing financial stability and stress testing, as others have raised their game. These are critical issues, given that the IMF is the only international financial institution with the mandate and ability to conduct financial and macrofinancial surveillance over the full range of countries as well as the global economy.

86. **Resource constraints have been an important factor making it hard for the Fund to fulfill its responsibilities and meet the membership's expectations of high quality and effective financial surveillance.** The sustained expansion of financial surveillance responsibilities, products and activities has not been matched by a commensurate increase in resources as the overall resource envelope for financial surveillance is at about the pre-crisis level. While a rising proportion of Fund economists has acquired experience in financial sector issues, the build-up of financial expertise necessary for effective financial surveillance has been limited by challenges in attracting, developing and retaining the necessary talent. Other priorities, such as emerging macro-critical issues, have competed for attention and resources. To be sure, the IMF as an institution needs to live within an overall resource envelope provided by the membership, and there are certainly ways in which financial surveillance itself could be more efficient and value-driven. Nevertheless, it is the IEO's overall judgement that financial surveillance remains under-resourced given its centrality to the Fund's mandate and the membership's desire to strengthen the Fund's capacity for high-quality work in this area.

## Bilateral surveillance

87. **Despite significant efforts, there is still considerable room to improve the quality and impact of bilateral financial surveillance.** This evaluation's country case studies show that the Fund's bilateral financial surveillance work is generally well regarded but also fairly uneven. The highest quality work seems to be in FSAPs, particularly for the most systemically important financial sectors, while value-added in terms of influence over authorities' policies is arguably greater beyond the most systemically important. The mainstreaming of macrofinancial work in Article IV consultations has helped to increase attention to these issues, but officials in many countries covered in the case studies still felt that Article IV surveillance did not add much value and emphasized that the integration of Article IV and FSAP work remains limited. Many officials noted that FSAP teams were often not fully on top of domestic conditions and institutions and policy advice sometimes relied too heavily on off-the-shelf approaches that were not necessarily appropriate for their circumstances. Article IV teams, on the other hand, were more knowledgeable of country conditions but did not bring the financial and macrofinancial skills for in-depth financial stability analysis.

88. **FSAPs are generally well-regarded as a useful tool across the membership, but it is not clear that FSAP resources are appropriately allocated across countries from a risk perspective.** FSAPs are appreciated by authorities for providing a useful sounding board to review issues with knowledgeable external advisors, and for providing a public validation of countries' financial stability frameworks. However, officials in many of the S29 found that there were diminishing returns over time, and that the time and resource demands on the home country are quite extensive. For the S5, a regular five-year FSAP would seem to be a fully-justified global public good. Beyond these five, there seems to be merit in dedicating fewer resources to the S29 countries that are relatively stable, and shifting those resources to other countries beyond the S29 perimeter that otherwise may have to wait many years between FSAPs despite quite developed financial systems and potentially serious institutional and market risks. Under the current arrangement, only a handful of the 160 non-S29 countries can be covered each year.

89. **FSAP value added could also gain from a more flexible allocation of resources within each FSAP.** In recent years, the IMF has tried to tailor FSAP content to issues relevant to country circumstances, but there is still an observed tendency towards comprehensiveness rather than selectivity. In this connection, IMF stress testing in FSAPs could be more responsive to the evolving capacity and needs of member countries. While IMF staff played a key role in developing and disseminating the use of stress tests, by now most AEs and many EMEs conduct sophisticated stress tests on a regular basis. These tests are tailored to the specific country context and are based on data not available to the IMF. Authorities in some of these countries indicated that they find the IMF conducting its own stress tests in the context of FSAPs onerous and of limited value. A more flexible, tailored approach to stress testing would enhance the relevance of the IMF risk assessment, reduce resource pressures on the authorities and the IMF, and facilitate knowledge exchange.

90. **A major challenge for bilateral financial surveillance is to strengthen the integration of Article IV and FSAP work.** Country officials interviewed often noted the lack of follow-up of FSAPs in subsequent Article IV reports—beyond checking whether FSAP policy recommendations have been followed. FSAPs are too infrequent to be relied upon to detect fast developing financial stability risks, while Article IV teams do not have the breadth and depth of skills and resources to adequately identify and explore financial stability risks. This issue has been long recognized as a weakness, but a more concrete mechanism to foster tighter integration would seem to be needed.

### **Multilateral surveillance**

91. **IMF multilateral financial surveillance has made significant progress in addressing shortcomings prior to the GFC.** The *GFSR* and the EWE are now widely respected by country authorities as providing thoughtful and sometimes pathbreaking analysis of global risks and new issues. They are appreciated for taking a hard look at difficult concerns and are more candid than bilateral surveillance, while generally being sufficiently careful not to heighten market instability.

92. **Continued attention to more rigorous analysis and clearer presentation could enhance the *GFSR*'s traction.** Most authorities, and IMF staff outside of MCM, indicated that Chapter 1 of the *GFSR* is a difficult read, with many charts, graphs and tables that are not sufficiently explained and that are difficult to follow. Also, some authorities were unconvinced by the *GFSR*'s analysis on their own country, complaining that it showed a lack of understanding of the institutional context. While retaining the highly appreciated candor of the publication, the *GFSR* could increase its influence on the policy debate by giving greater attention to ensuring that its analysis is rigorous, transparent, and convincing.

93. **The EWE is thought-provoking and relevant, but its impact is constrained by the very restricted access to its messages and it would benefit from increased synergy between the IMF and FSB contributions.** The most common complaint about the EWE comes from those who do not participate in the exercise and find it hard to learn about its substance. This is not an easy problem to solve, since keeping access restricted to the most senior officials in a limited range of countries seems to be critical to its success as a forum for high-level discussion. Also, there could be merit in seeking closer coordination between the IMF and FSB, particularly on topic selection. Participating authorities appreciated the IMF presentation, but some of them would also want to get a more macroeconomic perspective from the IMF on the financial issues covered by the FSB. However, any such effort would need to be careful to avoid compromising the Fund's capacity to raise difficult issues and out-of-the box concerns.

### **Cooperation with financial regulatory agencies**

94. **The IMF generally cooperates effectively with partner institutions on issues related to the global financial architecture but could have a larger impact by leveraging its comparative advantages.** The FSB and SSBs as well as country officials more generally appreciate the IMF's contributions, including its analytical work, its independent and global perspective, and

its representation of countries that are not members of these organizations, while avoiding getting enmeshed in standards negotiations, which are properly handled by national experts. Nonetheless, there would seem to be significant potential for enhancing IMF contributions particularly in ex post impact assessments of reforms by better leveraging the information it collects as part of bilateral surveillance and its macrofinancial expertise. The IMF would also be well placed to work with partners on global financial stability analysis focusing on cross-border interconnectedness and spillovers, but for this to be most effective the Fund would need greater access to granular data on G-SIFIs. As a general caveat, however, building this workstream would require the IMF to invest considerable resources in an area where the institution has scaled back its involvement in the past few years.

### **Analytical tools**

95. **Notwithstanding areas of excellence, the IMF has not kept pace with central banks in AEs on macrofinancial modeling and the development of tools to assess financial stability, including stress tests.** Following the GFC, central banks in many AEs invested heavily in cutting-edge research on issues related to financial stability, including incorporating financial variables into their macro models and tools for stress testing. The Fund has also contributed in these areas, but its work has been more limited and less influential. It would be difficult for the IMF to keep up with these central banks across the board given the amount of resources they can devote to this research and that they focus on models and tools built for their particular country context. Nevertheless, the IMF should be able to deepen its contribution by focusing its research resources on areas of comparative advantage, such as tools for assessing cross-border transmission of shocks and stress testing tools based on publicly available market data, which may be helpful to sharpen the focus of Article IV consultations.

96. **Over the past couple of years, the IMF has been working hard to gain expertise in emerging fintech areas and cyber security but is not generally regarded as a cutting-edge source of analysis and expertise.** Given the strong demand and relevance, the IMF should continue efforts to develop the necessary expertise to assist member countries in designing policies and regulations, and in monitoring risks focusing on areas of IMF comparative advantage, while leaving the task of setting standards to the appropriate SSBs. Recently, the IMF has worked with the World Bank to lay out a broad agenda of fintech issues relevant to member countries. An important next step would be for the IMF to decide on the areas where it would concentrate its own resources and build capacity to become a valued source of advice to member countries (IMF, 2018b).

### **Talent management**

97. **Notwithstanding considerable training and recruitment efforts, there is still a general need to enrich staff knowledge and experience in macrofinancial analysis and to build up a group of top-notch expert financial economists.** The IMF has taken steps to provide training for existing staff and recruit new staff with financial expertise, and a significant proportion

of IMF staff responding to an IEO survey self-reported as having macrofinancial skills. Nevertheless, uneven results in mainstreaming macrofinancial work in Article IVs, and the importance of ensuring excellence in related analytical work, suggest that there is still need for more staff with deep skills and expertise in these areas to be able to conduct effective financial surveillance across the membership. In particular, short supply, both in MCM and area departments, are expert financial economists who can contribute cutting-edge work on macrofinancial and macroeconomic stability issues, experts in fintech and cyber security, and staff with private sector and market experience.

98. **To address the membership’s demand for more and deeper financial surveillance, the IMF will need to consider ways to improve incentives to help attract, develop and retain more financial talent.** The IMF has been trying to recruit more entry-level and mid-career staff with these qualifications, but progress has been constrained by low staff turnover and stiff competition from central banks, regulators, the private sector, and academia. A significant share of area department economists has attended a dedicated training program, but the impact will only emerge over time, as new skills need to be complemented by on-the-job experience. The IMF has also had difficulties recruiting, developing, and retaining top-notch financial talent, in part because the Fund career path to senior positions normally requires rotations to establish fungibility.

99. **In some ways, the staffing challenges faced by the IMF in financial surveillance are symptomatic of a bigger institutional issue.** IMF staff is mostly composed of fungible macroeconomists, able to move between assignments, which for many years served the institution well. However, increasingly finance and other areas covered by the IMF require deeper expertise as economics as a profession has become more specialized. At the same time, country authorities have staffed themselves with officials recruited from top universities who then advance within more specialist career tracks. The IMF is starting to consider the need for a shift in approach by introducing an “expert track” but it will continue to rely for the bulk of financial surveillance work on a cadre of fungible macroeconomists. This reality reinforces the importance of skilling up the fungible macroeconomists to equip them to conduct macrofinancial surveillance and to increase priority for financial economist skills in hiring at entry and mid-career levels.

## B. Recommendations

100. **Notwithstanding the very real progress to date, the IMF needs to address a number of challenges to further strengthen the effectiveness of financial surveillance which lies at the core of its mandate.** The evaluation recommendations, summarized in Box 2, are complemented by more specific suggestions on how they could be implemented. The recommendations do not call for a major shift in strategy or long-term aspirations. Rather, they aim to combine some new initiatives with sustained efforts to build on ongoing work and a willingness to fine-tune priorities to meet evolving needs. It should be emphasized up front that making concrete progress will require providing significant additional resources, as well as taking steps to use existing resources more effectively.

### Box 2. IEO Recommendations for Board Consideration

**Recommendation 1—Strengthening financial and macrofinancial analysis in Article IV surveillance:** To improve the relevance and traction of bilateral financial surveillance, the IMF needs to deepen financial and macrofinancial analysis, particularly in Article IV consultations, including by taking practical steps to better integrate FSAP analysis in Article IV consultations and by increasing financial skills and expertise among staff.

**Recommendation 2—Refocusing FSAP Country Selection and Scope:** The IMF should revisit the current approach to allocating FSAP resources to achieve a more flexible, dynamic, and risk-based allocation across countries and issues.

**Recommendation 3—Increasing Traction of Multilateral Surveillance:** The IMF should continue to work to enhance the impact of IMF multilateral surveillance by increasing rigor and transparency, and by deepening collaboration with international partners.

**Recommendation 4—Enhancing the IMF’s Analytical Tools:** To enhance the value added of its financial surveillance, the IMF should strengthen efforts to be a global center of excellence on financial and macrofinancial research.

**Recommendation 5—Building Financial Skills and Expertise:** The IMF should intensify efforts to attract, develop, and retain a deeper pool of financial talent, as well as to ensure that area department fungible macroeconomists have the knowledge and support to integrate financial and macrofinancial analysis into Article IV consultations.

**Recommendation 6—Increasing Budgetary Resources:** To fully meet its responsibilities and objectives, the IMF should consider devoting significant additional resources to financial surveillance.

***Recommendation 1—Strengthening financial and macrofinancial analysis in Article IV surveillance:*** To improve the relevance and traction of bilateral financial surveillance, the IMF needs to deepen financial and macrofinancial analysis, particularly in Article IV consultations, including by taking practical steps to better integrate FSAP analysis in Article IV consultations and by increasing financial skills and expertise among staff.

101. **In their planning, implementation and follow up, FSAPs and Article IV consultations should be more systematically conducted as parts of the same process.** Article IV teams do not generally have the breadth and depth of skills and resources to conduct financial and macrofinancial analyses and to adequately identify and explore financial stability risks. While FSAP teams are better equipped for these purposes, these assessments are too infrequent to detect fast-developing financial stability risks, and they often lack in-depth country knowledge. Greater integration of FSAP analysis in Article IV consultations would help to increase the synergies between these two processes. In particular, FSAPs could provide a periodic “deep dive” to identify key risks and vulnerabilities, while Article IV consultations could provide annual checkups to track FSAP-identified concerns, using techniques and templates suggested by the FSAP and taking care to adapt in a timely fashion to evolving circumstances. In countries with no recent FSAP, Article IV teams would have to intensify their preparatory work to identify financial and macrofinancial vulnerabilities and develop policy advice, with support from MCM and other departments:



102. **As a concrete step to provide an anchor for improved FSAP-Article IV integration, FSAPs could produce a template for financial stability assessment and monitoring to be followed up by Article IV consultations.** This template would represent an additional element of the FSSA and would include a new financial vulnerability matrix that would lay out the most salient current vulnerabilities and associated risks, and areas where vulnerabilities could emerge, and it would propose a methodology and specific metrics (including both balance sheet and market based metrics) for the Article IV team to monitor how these vulnerabilities are addressed and the risks mitigated over time.<sup>43</sup> In preparing this template, FSAP teams should keep in mind that follow up would take place in the context of Article IV missions, where technical skills may be more limited. FSAP teams should also prioritize their policy recommendations, laid out separately in the FSSA, to facilitate follow-up by Article IV missions, which should continue until all relevant recommendations have been fully implemented.

103. **In order to achieve significant progress, Article IV teams would need to have access to sufficient financial expertise to allow them to meaningfully pursue financial stability issues.** It is not realistic or necessary for all Article IV missions to include such skills uniformly. Nevertheless, strengthening financial surveillance more consistently across those countries where financial vulnerabilities are potentially of serious concern will require a substantial increase in allocation of economists with financial skills, in order to ensure that mission teams include adequate financial sector expertise to discuss financial stability assessments with country authorities and to help integrate macrofinancial and financial stability issues into the overall staff assessment.

104. **Other practical steps for better integration could include:**

- Using Article IV consultations as an opportunity to discuss with authorities the scope of upcoming FSAPs, and to explore issues that authorities would like to see covered.
- Involving ED offices more fully in the organization of FSAPs, comparable to the practice for Article IVs consultations.

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<sup>43</sup> The proposed financial vulnerability matrix would identify the key financial vulnerabilities and would serve as a mechanism for monitoring evolution of these vulnerabilities over time. This matrix is different than the Risk Assessment Matrices (RAMs) that are part of the FSAP and Article IVs. The FSAP RAM focuses on tail risks to financial stability. The Article IV RAM covers risks to the country's macroeconomic outlook, including to the financial sector. While different, these RAMs are supposed to be consistent.

**Recommendation 2—Refocusing FSAP Country Selection and Scope:** The IMF should revisit the current approach to allocating FSAP resources to achieve a more flexible, dynamic, and risk-based allocation across countries and across issues.

105. **The current distinction between the S29 countries, which are covered every five years, and the rest of the membership has proven too inflexible.** It has led to diminishing returns in some countries with relatively safe financial sectors, while other countries with substantial financial vulnerabilities that fall outside the S29 perimeter have FSAPs very infrequently. There should also be greater scope for tailoring FSAP content to country circumstances to generate greater value added and achieve a more efficient use of FSAP resources.

106. **As an alternative to the current approach, this evaluation recommends greatly reducing mandatory FSAPs to a very limited number to allow for wider and more risk-based country coverage and greater value added.**<sup>44</sup> Specifically, it proposes that only the S5 would continue to be covered by mandatory FSAPs every five years. For the rest of the membership, there would be an expectation that countries would agree to FSAPs on a periodic basis based on a systematic Fund-wide approach to country selection. Such an approach for selection of countries to cover would need to ensure transparency and evenhandedness, as well as effectiveness and efficiency. This could be achieved as part of each year's work program discussions with the Executive Board, when management could propose a rolling list of 30–45 countries for which FSAPs would be initiated during the following two or three years. These countries would be identified based on criteria similar to those currently in place for prioritizing non-mandatory FSAPs, approved by the Board in the context of the 2014 FSAP review, which include financial and macro vulnerabilities and take into account the need to maintain a balance across regions and levels of financial development (IMF, 2014c). This approach would allow wider and more risk-based coverage, although countries with relatively limited financial sectors would still have FSAPs quite infrequently (as is now the case). An expansion of the new FSSR diagnostic tool and closer cooperation with the World Bank could help to meet these countries' demands for advice and support on financial development issues.

107. **At the same time, the IMF should continue to work towards greater differentiation in scope and focus across FSAPs, to increase value added and make better use of staff and authorities' time and resources.** FSAP scope and focus should be tailored to the size and level of development of the country's financial sector, the sophistication of regulatory agencies, and an assessment of risks, vulnerabilities, and regulatory gaps. While some progress has been made in this direction, there would seem to be room to go further, including in the S5, to pay more attention to newly emerging and rapidly changing issues or where the IMF can bring to bear new

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<sup>44</sup> There are many other approaches to achieve these goals beside the one recommended by this evaluation, but the key goal must be to substantially increase the scope for a more risk-based allocation of FSAP resources.

techniques to investigate risks that may have received too little attention in the past, and pay less attention to issues that have already been thoroughly considered and where little has changed.

108. **As part of efforts to tailor coverage to country circumstances, in countries now conducting regular sophisticated stress tests, FSAPs could focus on designing risk scenarios, reviewing the authorities' models, and discussing the test results and critical stability risks.**

In these countries, FSAPs should limit detailed stress tests to areas not covered by authorities' tests. Such an approach would limit the resource burden on the IMF and authorities, while focusing on providing value added. More generally, FSAP stress tests would be more valuable if they were designed as joint exercises with country authorities, allowing for two-way knowledge exchange, on models and techniques. Also, FSAP teams should provide advice that is fully anchored in the local circumstances and not overly reliant on off-the-shelf "international best practice."

109. ***Recommendation 3—Increasing Traction of Multilateral Surveillance: The IMF should continue to work to enhance the impact of IMF multilateral surveillance by increasing rigor and transparency, and by deepening collaboration with international partners.***

110. **IMF work on multilateral financial surveillance is generally well regarded and influential but there is room to enhance impact.** Traction could be increased by building on recent efforts to strengthen analytical rigor, by ensuring adequate recognition of country circumstances, by providing more transparency, and by seeking to take greater advantage of its comparative advantages in working with international partners.

111. **While retaining its candor, which is generally appreciated by the membership, the *GFSR* needs to be more rigorous and transparent in order to be more persuasive to relevant policymakers, particularly when identifying country specific vulnerabilities.** Recent efforts to ensure that analytical and empirical approaches underlying the *GFSR* are carefully developed and made publicly available should continue. It should also make more details and data available online in the interest of full transparency. The *GFSR* should make better and earlier use of area department teams to ensure that country references are factually correct and reflect an adequate understanding of country circumstances and institutions. The *GFSR* should adapt its presentation to make it an easier read for busy country officials, its main audience.

112. **While preserving its independent perspective, the IMF should aim at coordinating more closely with the FSB on the choice of topics for the EWE, particularly focusing on financial and macrofinancial risks.** Closer coordination would support deeper analysis of macrofinancial and stability risks and help point to potential policy steps that participants could pursue to mitigate the identified vulnerabilities and risks. This should be done in a way that draws on the strengths of the two institutions, while taking care to avoid compromising the IMF's capacity to raise out-of-the box issues. The EWE key messages should be disseminated more

broadly among senior authorities in member countries, while respecting the strict confidentiality of the EWE meeting and the need for care in communicating official views about tail risks.

113. **Intensified cooperation with the international regulatory agencies could contribute to advancing the global reform agenda, particularly by drawing on the IMF's comparative advantage in analyzing cross-border risks and in bilateral surveillance.** Thus, the IMF could scale up its work with the FSB, SSBs, and BIS in the area of assessing the impact of reforms, at the country and global levels. At the country level, the Fund could extend its work on post-reform impact assessment in the context of FSAP or Article IV missions. At the global level, together with partner institutions, the Fund could deepen work on developing cross-border global stress tests. The value added from such work would, however, depend on greater access to granular data from G-SIFIs. This could be achieved by developing working arrangements to conduct the analysis by pooling efforts while preserving the necessary data confidentiality.

***Recommendation 4—Enhancing the IMF's Analytical Tools: To enhance the value added of its financial surveillance, the IMF should strengthen efforts to be a global center of excellence on financial and macrofinancial research.***

114. The IMF should intensify efforts to enhance its analytical tools for financial and macrofinancial surveillance, as central banks and other official agencies have done. While the IMF cannot be expected to be at the cutting edge on all topics, it should expand research on issues within its comparative advantage, particularly improving its models to analyze cross-border macrofinancial linkages, and tools to identify and assess financial vulnerabilities and risks. Its pioneer role in developing stress tests, and its recent development of the Growth-at-Risk approach provide good examples of how this can be achieved. Concrete suggestions in this area include:

- Developing global stress tests, an area of IMF comparative advantage that could be pursued in partnership with the FSB and the BIS, as mentioned in Recommendation 3.
- Partnering with the largest and most advanced central banks to learn about their tools and frameworks for analyzing financial stability and macrofinancial linkages and disseminate this knowledge among the membership at large.
- Streamlining and simplifying existing tools to make them user-friendly which would allow FSAP and Article IV teams to make greater use of them. The experience with the macrofinancial pilot suggests that more hands-on training and inter-departmental support could improve the quality of IMF surveillance.
- In the rapidly evolving area of fintech, delineating the Fund's role, designing a strategy that focuses on its comparative advantage, and developing the necessary expertise.

***Recommendation 5—Building Financial Skills and Expertise:* The IMF should intensify efforts to attract, develop, and retain a deeper pool of financial talent, as well as to ensure that area department fungible macroeconomists have the knowledge and support to integrate financial and macrofinancial analysis into Article IV consultations.**

115. **Staff members with cutting-edge financial and macrofinancial knowledge and experience are key to meeting the membership’s demands for high quality financial surveillance.** Efforts to equip and support country teams to carry out this work should be reinforced.

116. **Most important, the IMF should be prepared to compete harder to attract staff with high-level macrofinancial skills.** To recruit more entry-level and mid-career financial economists, the IMF should offer career paths for them (and other specialized economists) that allow for promotion to senior managerial levels without requiring fungibility and mobility. Greater flexibility could also be provided to offer attractive compensation for a group with special skills that are in high demand. Other initiatives to improve management of IMF financial talent could include the following:

- Stronger incentives could be put in place to encourage rotations of fungible economists in MCM and outside the IMF, including in central banks and the private financial sector.
- Consideration should be given to making macrofinancial courses in the structured curriculum mandatory for all fungible macroeconomists.
- The IMF should develop and maintain a skills inventory, including of staff’s financial and macrofinancial expertise to more easily and continuously be able to assess gaps.

***Recommendation 6—Increasing Budgetary Resources:* To fully meet its responsibilities and objectives, the IMF should consider devoting significant additional resources to financial surveillance.**

117. **Resources allocated to IMF financial surveillance are under strain, and significant additional resources will be needed to increase the IMF’s capacity to fulfill its responsibility for high quality and effective financial surveillance.** The IEO recognizes that the IMF’s overall resources are limited, and that many different needs must be balanced. Nonetheless, in the IEO’s view, financial surveillance deserves top priority treatment given its centrality to the IMF’s mandate, and the reality that efforts to reinforce the Fund’s financial surveillance work will continue to fall short unless adequately resourced.

118. **While it is beyond the IEO’s remit to provide detailed costing of the various initiatives proposed here, some comments on priorities would seem relevant.**

- The highest priority for additional resources is to strengthen financial and macrofinancial surveillance in Article IV consultations along the lines of Recommendation 1. To have an

impact, the IMF should consider a budgetary increase commensurate with the resources expended on the mainstreaming pilot, allocated mainly to MCM and area departments with the proportions depending on choices regarding allocation of responsibilities.

- Strengthening financial surveillance in Article IVs would also require augmenting the pool of financial and macrofinancial talent, as laid out in Recommendation 5. Expanding recruitment, training and retention of financial economists may require financial incentives, in addition to offering better career prospects.
- Enhancing the IMF analytical toolkit, Recommendation 4, would require a modest, but fully dedicated, increase in resources.
- It should be possible to expand coverage and increase the value added of FSAPs by reassigning resources across countries and activities, but this would require a willingness to greatly reduce the number of jurisdictions covered by mandatory FSAPs every five years, as suggested in Recommendation 2.
- Multilateral surveillance could achieve greater traction through a refocusing of efforts without necessarily requiring substantial additional resources, along the lines described in Recommendation 3.
- Conducting post-implementation impact assessments, as suggested under Recommendation 3, could be a major contribution to reviewing the current regulatory system and designing future reforms. However, realistically this work would require very large investments, which the IMF should undertake only if there is clear support from the membership, both in terms of providing additional resources and ensuring access to the needed data.

119. ***A final remark on the institutional culture.*** This evaluation concludes that the IMF is now better prepared to detect financial vulnerabilities and risks, and that it has contributed to global reforms that should strengthen resilience if a crisis were to emerge. But the past few years have been characterized by easy financial conditions and highly accommodative monetary policy, which facilitated recovery, albeit as public and private debt burdens rose. The robustness of the reformed global and national financial systems will be tested as monetary and financial conditions normalize and memories of the crisis recede. It is impossible to anticipate all vulnerabilities and risks, and certainly to predict all crises. Thus, the IMF needs to cultivate a culture that is proactive in constantly scanning for emerging vulnerabilities and risks, while continually promoting reforms that will increase resilience of financial systems to the crises that will inevitably occur.

## ANNEX 1. ABSTRACTS OF BACKGROUND PAPERS

### **BP/18-02/01. “IMF Bilateral Financial Surveillance,” by Shinji Takagi**

This paper assesses aspects of IMF bilateral financial surveillance, primarily drawing on 15 country case studies and also utilizing a desk review of IMF documents and interviews with additional member country officials. Following the global financial crisis, the Fund intensified its efforts to better integrate macroeconomic and financial analysis. This paper confirmed that the coverage of financial sector issues and macrofinancial linkages has expanded, especially in countries without systemically important financial sectors. Even so, the Fund faces obstacles to effective financial surveillance, not least including data gaps and the absence of a well-established, quantifiable model of real-financial linkages. This paper concludes that macrofinancial integration remains a work in progress despite recent improvements.

### **BP/18-02/02. “Assessing the FSAP: The Quality, Relevance, and Utility of the IMF’s Program,” by Gerard Caprio**

This paper examines the technical quality, relevance and usefulness of the Financial Sector Assessment Program (FSAP). The FSAP has become an increasingly sophisticated tool for evaluating the stability of financial systems since the global financial crisis and is generally regarded by country authorities as a high quality and rigorous exercise. Financial regulatory authorities, however, have also made great strides in their own ability to assess financial stability. To optimize the value added of FSAPs, this paper recommends greater focus, prioritization and greater integration with Article IV consultations.

### **BP/18-02/03. “IMF Multilateral Financial Surveillance,” by Jeromin Zettelmeyer**

This paper evaluates IMF multilateral financial surveillance during 2013–17 along five dimensions: *GFSR* vulnerability analysis, the *GFSR*’s risk warnings, consistency of the *GFSR* with the *WEO* and the G20 notes, the Early Warning Exercise (EWE), and consistency of *GFSR* with bilateral financial surveillance of the United States and the euro area. The main finding is that multilateral financial surveillance has come a long way since the crisis, particularly with respect to increasing consistency of messages and integration with bilateral surveillance. Nevertheless, there remains room for improvement both in the presentation and substance of vulnerability analysis.

### **BP/18-02/04. “Collaboration in Financial Regulatory Reform: The IMF, the Financial Stability Board, and the Standard Setting Bodies,” by Stephen Cecchetti**

This paper examines the IMF’s role in financial regulatory reform, with a focus on its relationship to the Financial Stability Board (FSB) and the Standard Setting Bodies (SSBs). The IMF has contributed greatly to the global regulatory reform agenda, not only by monitoring implementation of standards but also by providing fundamental research and assessing the impact of reforms. Moreover, the IMF’s relationships with the FSB and SSBs are generally working

well. There are, however, opportunities for the IMF to enhance its contributions, particularly in pre- and post-implementation impact assessments.

**BP/18-02/05. “Strengthening IMF Financial Surveillance: Organizational and Human Resource Issues,” by Louellen Stedman**

This paper assesses institutional arrangements aimed at enhancing financial surveillance in the IMF since 2010, in particular issues related to the IMF’s organizational structure and processes, budgetary resources, and human resource management. To support its financial surveillance objectives, the IMF has continued to adapt its organizational arrangements, to align its budget and human resources, and to enhance the skills of country teams. Nonetheless, the IMF’s efforts in this area remain a work in progress. This paper also provides recommendations to increase institutional knowledge of existing skills and enhance incentives related to financial skills and expertise.

**BP/18-02/06. “Analytical Frameworks and Toolkits in IMF Financial Surveillance,” by Olivier Jeanne**

This paper evaluates the analytical frameworks and tools used by the IMF in its financial surveillance. The IMF was a leader in developing models and tools to analyze various financial and macrofinancial issues, including stress tests. Since the global financial crisis, central banks in advanced economies and some emerging markets have made large investments in developing models of their own economies that incorporate financial frictions, and stress tests that are tailored to their circumstances. To continue being a center of excellence on financial and macrofinancial issues, this paper recommends that the IMF increase its investment in research and development of tools in areas of its comparative advantage, including cross-border financial spillovers and global liquidity stress tests.

**BP/18-02/07. “Emerging Technology-Related Issues in Finance and the Fund: A Stocktaking,” by Dimitri Demekas**

This paper provides a stocktaking of the IMF’s work on three emerging technology-related issues in finance: (i) cyber risk and cyber security for financial systems; (ii) technology-driven innovation in the provision of financial services (“fintech”); and (iii) digital currencies or cryptocurrencies. The stocktaking shows that the IMF has been paying increasing attention to technology-related issues in finance and has sought to engage with them, both as analytical issues and as topics in surveillance. Together with the World Bank, the IMF has developed the Bali Fintech Agenda that sets out a framework to help members consider how they will be impacted by fintech developments and how they should respond.



**BP/18-02/08. “IEO Evaluation of IMF Financial Surveillance: Survey Results,” by Chris Monasterski**

This paper presents the results of IEO surveys of the Offices of Executive Directors (OED) and IMF staff. The OED survey focused on the goals and strategic directions of IMF financial surveillance and on perceptions of financial surveillance as undertaken via Article IV consultations, the Financial Sector Assessment Program (FSAP), and multilateral surveillance. The OED survey was sent to 211 recipients, of which 84 responded (39.8 percent). The staff survey focused on the goals and strategic direction of financial surveillance, respondent experience with integrating financial sector issues in IMF bilateral and multilateral surveillance, and individual skills and training. The staff survey was sent to 1,368 economist and specialized career stream staff (levels A12 to B4) in area departments, the Monetary and Capital Markets Department (MCM) and other select functional departments,<sup>1</sup> of which 415 responded (30.3 percent).

**BP/18-02/09. “IMF Financial Surveillance in Action: Country Case Studies from Europe and Sub-Saharan Africa”**

Chapter 1—IMF Financial Surveillance of the Euro Area, by Jean-Pierre Landau

Chapter 2—IMF Financial Surveillance of Germany, by Jeffrey Anderson

Chapter 3—IMF Financial Surveillance of Italy, by Jeffrey Anderson

Chapter 4—IMF Financial Surveillance of the United Kingdom, by David Miles

Chapter 5—IMF Financial Surveillance of Ghana, Kenya, and Nigeria, by Mthuli Ncube

**BP/18-02/10. “IMF Financial Surveillance in Action: Country Case Studies from Asia and the Western Hemisphere”**

Chapter 1—IMF Financial Surveillance of Brazil, by Sanjay Dhar

Chapter 2—IMF Financial Surveillance of China, by David Dollar

Chapter 3—IMF Financial Surveillance of Japan, by Akira Ariyoshi

Chapter 4—IMF Financial Surveillance of Malaysia, Singapore, and Thailand, by  
Latifah Merican Cheong

Chapter 5—IMF Financial Surveillance of Mexico, by Monica de Bolle

Chapter 6—IMF Financial Surveillance of the United States, by John Murray

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<sup>1</sup> Fiscal Affairs Department, Finance Department, Legal Department, Research Department, Strategy, Policy and Review Department, and Statistics Department.

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