INTERNATIONAL MONETARY FUND

IMF POLICY PAPER

May 2021

2021 FINANCIAL SECTOR ASSESSMENT PROGRAM REVIEW—TOWARDS A MORE STABLE AND SUSTAINABLE FINANCIAL SYSTEM

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

- A **Press Release** summarizing the views of the Executive Board as expressed during its May 12, 2021 consideration of report.
- **The 2021 Financial Sector Assessment Program Review—Towards a More Stable and Sustainable Financial System report**, prepared by IMF staff and completed on April 15, 2021 for the Executive Board's consideration on May 12, 2021.

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

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

International Monetary Fund
Washington, D.C.

© 2021 International Monetary Fund

PRESS RELEASE

PR21/143

IMF Executive Board Concludes Periodic Review of the Financial Sector Assessment Program

FOR IMMEDIATE RELEASE

Washington, DC – May 27, 2021: The Executive Board of the International Monetary Fund (IMF) completed a periodic review of the Financial Sector Assessment Program (FSAP) on May 12.

This review examined the Fund's role and responsibilities in the Financial Sector Assessment Program (FSAP) as the global financial stability landscape has continued to evolve. The pandemic has highlighted the importance of assessing financial stability risks from vulnerabilities in the nonfinancial sectors, possibly long-lasting scarring effects, and digitalization. Climate change also has important implications for the financial sector. The review assessed how the FSAP has adapted to the transformation of financial systems and emerging new risks and provided proposals on enhancing the value of the FSAP for national authorities and further strengthening its contribution to Fund financial surveillance. The review was based on background staff analyses and surveys of country authorities and Executive Directors.

The FSAP provides in-depth assessments of financial sectors and provides important input to Fund surveillance. Assessments of financial sectors are usually conducted jointly with the World Bank in emerging market and developing economies and by the Fund alone in advanced economies. These assessments provide valuable analysis and policy recommendations for surveillance and capacity development. A landmark change in the FSAP took place in 2010 when the IMF's Executive Board mandated that jurisdictions with Systemically Important Financial Sectors (SIFS) participate in financial stability assessments as a part of Fund surveillance. Since 2013, the list of such jurisdictions has been set at 29—so-called S29. Since the program's inception in 1999, 157 Fund members have undergone individual or regional FSAPs. In recent years, the Fund has been conducting 12–14 FSAPs per year. More than half has been voluntary assessments and for emerging market and developing economies.

This review builds on past assessments of the program. The 2014 review emphasized systemic risk and deeper analysis of nonbank financial institutions and interconnectedness. It called for more work on macroprudential policies, more flexible use of international standards, and greater integration with bilateral surveillance. The 2019 evaluation of IMF financial surveillance by the Independent Evaluation Office called for further integration of FSAP and Article IV consultations and making the frequency of FSAP assessments more risk-based.

Executive Board Assessment[1]

[1] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.IMF.org/external/np/sec/misc/qualifiers.htm

700 19th Street NW
Washington, DC 20431
USA

Executive Directors welcomed the Financial Sector Assessment Program (FSAP) Review and its background papers. They noted that the FSAP has made an important contribution to Fund surveillance and capacity development. They also noted the potential strains facing financial systems across the Fund membership in the wake of the COVID-19 pandemic which have highlighted the significance of risks from the nonfinancial sector and vulnerabilities in nonbank financial institutions (NBFIs) and financial market infrastructures. In addition, the membership is facing important new opportunities and challenges, including from climate change and digitalization.

Directors emphasized that the three-pillar approach to conducting FSAPs—focusing on risk analysis, oversight, and safety nets—has worked well. The risk-focused approach to scoping Financial Stability Assessments (FSA) has provided flexibility to address relevant risks while helping to prioritize and contain the program's resource footprint in the face of increasingly complex financial stability challenges since the previous review. Going forward, greater use could be made of the flexibility within the framework when scoping issues for FSAPs, balancing current coverage with emerging risks and issues, with continued tailoring of FSAPs to country specifics, effective prioritization, and in close consultation with the country authorities. The risk-based approach would help decide whether to conduct a full standard assessment versus a focused review and leverage the findings of recent standards assessment to tailor the scope of FSAs. Directors endorsed the Key Attributes of Effective Resolution Regimes as the assessment benchmark for insurance resolution frameworks in FSAPs and stand-alone assessments.

Directors welcomed ongoing efforts to further enrich the FSAP's risk analysis toolkit. They stressed the importance of strengthening the development of tools to assess interactions between solvency, liquidity, and contagion risks, vulnerabilities among NBFIs, risks in nonfinancial sectors, interconnectedness, macrofinancial interactions, the macroprudential policy stance and new risks. Directors emphasized the importance of continued efforts to increase the efficiency, dissemination, and ease of use of the FSAP toolkit and to ease data constraints. They also stressed the need for continued efforts to strengthen the toolkit to enhance the assessment of financial vulnerabilities in low and lower-middle income countries.

Directors welcomed the proposals to improve the traction of FSAPs. While most FSAP recommendations were implemented, challenges arose when members faced political economy constraints or where there may have been differences in technical views. In this context, Directors welcomed the introduction of the authorities' views in FSSAs. Directors also welcomed efforts to leverage the FSAP to develop risk analysis tools for use in bilateral surveillance and looked forward to further progress in this direction. They emphasized the importance of closer integration of the Article IV consultation process with the FSAP.

Directors welcomed the update and expansion of the list of jurisdictions with Systemically Important Financial Sectors (SIFS) that are subject to periodic mandatory FSAs, and a few Directors recalled that Fund policy requires the periodic review of the list and assessment frequency. They recognized that the cost of the FSAP had been broadly stable over time. Going forward, the slight cost increase from expanding the list of mandatory FSAs while maintaining space for voluntary FSAs could be accommodated within the current resource envelope.

Directors clarified the framework for expected periodic FSAs with supra-national authorities. A periodic FSA with a supra-national authority would be conducted if at least one member with a SIFS has delegated financial sector policies to the supra-national authority. The individual

member country FSAs would be scoped to leverage the planned work on the supra-national FSA to avoid duplication.

INTERNATIONAL MONETARY FUND

April 15, 2021

2021 FINANCIAL SECTOR ASSESSMENT PROGRAM REVIEW—TOWARDS A MORE STABLE AND SUSTAINABLE FINANCIAL SYSTEM

FSAP: The Financial Sector Assessment Program (FSAP) provides in-depth assessments of financial sectors. FSAPs are usually conducted jointly with the World Bank in emerging market and developing economies and by the Fund alone in advanced economies. FSAPs provide valuable analysis and policy recommendations for surveillance and capacity development. Since the program's inception, 157 Fund members have undergone individual or regional FSAPs. In recent years, the Fund has been conducting 12–14 FSAPs per year at a cost of about 3 percent of the Fund's direct spending.

Past Reviews: The FSAP has been transformed since the Global Financial Crisis. The 2009 Review delineated the Fund's focus on stability from the Bank's on development. A landmark change in the FSAP took place in 2010 when the IMF's Executive Board mandated that jurisdictions with Systemically Important Financial Sectors (SIFS) participate in financial stability assessments as a part of Fund surveillance. The 2014 Review focused on building on these gains. It emphasized systemic risk and deeper analysis of nonbank financial institutions and interconnectedness. The Review called for more work on macroprudential policies, more flexible use of international standards, and greater integration with bilateral surveillance.

Progress: Stakeholders highly and increasingly value the program's contributions to surveillance, especially the independent assessment. Most are comfortable with the framework, breadth, depth, and focus of financial stability assessments. Progress has been made on operationalizing strengthened analytics in FSAPs and more risk-based scoping. Overall FSAP costs have been stable over time; the variation in cost across jurisdictions reflects differences in financial system size and complexity.

2021 Review: Staff propose to build on past progress and leverage the FSAP's flexibility to balance resources with priorities—including risks from climate and technological change—when deciding the scope of individual assessments. Deepening analytical approaches to assess and mitigate systemic risk as well as grappling with the after-effects of the pandemic are priorities. Staff offer specific proposals to better support financial surveillance in Article IV consultations and proposes to strengthen the risk-based approach to mandatory assessments by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency.

Approved By
Tobias Adrian

Prepared by the Monetary and Capital Markets Department in collaboration with other departments and coordinated by Hiroko Oura under the overall guidance of Vikram Haksar and James Morsink (all MCM). The team for the main and background papers comprised Xiaodan Ding, Kelly Eckhold, Alan Xiaochen Feng, Pierpaolo Grippa, Marco Gross, Heedon Kang, Darryl King, Ivo Krznar, Tumer Kapan, Dimitrios Laliotis, Mindaugas Leika, Fabian Lipinsky, Inutu Lukonga, Pavel Lukyantsau, Fabiana Melo, Hunter Monroe, Erlend Nier, Thorvardur Olafsson, Liliana Schumacher, Katharine Seal, Nobuyasu Sugimoto, Thierry Tressel, Constant Verkoren, Chris Wilson, and Peter Windsor (all MCM), Julianne Ams, Ke Chen, Francisca Fernando, Grace Jackson, Olya Kroytor, David McDonnell, Jonathan Pampolina, Nadia Rendak, Mario Tamez (all LEG), Kevin Baily (ITD), Mario Catalan (ICD), Martin Cihak (SPR), Galen Sher (RES), Christopher Towe (external consultant), Laura Valderrama (EUR), Francis Vitek (FAD), and Teng Teng Xu (APD), with valuable documentation and logistical assistance from Lilly Siblesz de Doldan and Ashley Abraham.

CONTENTS

Glossary _____ 5

EXECUTIVE SUMMARY _____ **6**

CONTEXT _____ **8**

AIM I: SCOPE _____ **11**

A. Overall Scope _____ 11

B. Pillar 1: Scope of Quantitative Risk Analysis _____ 15

C. Pillar 2: Oversight _____ 18

D. Pillar 3: Financial Safety Net _____ 19

E. Coverage of Cross-Cutting Issues _____ 21

F. Coverage of Risks from Climate Change, Cyber, and Fintech _____ 22

G. Collaboration with the World Bank _____ 24

H. Proposals to Strengthen Scoping _____ 25

AIM II: QUANTITATIVE TOOLS _____ **25**

AIM III: TRACTION _____ **28**

A. Traction with Authorities 28
B. Integration Between FSAP and Article IV Surveillance 31
C. Integration with the GFSR and TA 33
D. Traction with the Public 33
E. Proposals to Increase Traction 34

AIM IV: COUNTRY PARTICIPATION 34
A. Overall Considerations 34
B. Mandatory Assessments 36
C. Voluntary Assessments 39
D. Supra-National and Regional Assessments 40
E. Proposals on Participation 42

AIM V: RESOURCES 42
A. Analysis 42
B. Cost of Proposal to Make Country Participation More Risk-Based 45

SUMMARY 46
A. Proposals 46
B. Implications for the Fund's Risk Profile 47

ISSUES FOR DISCUSSION 48

BOXES

1. The FSAP Agenda: Toward a More Stable and Sustainable Financial System 7
2. The Funds' Approach to Assessing Climate Change Risk in the FSAP 24
3. Participation of Supra-National Authorities in Mandatory FSAs 41

FIGURES

1. The Value of the FSAP in IMF's Financial Surveillance 9
2. FSAP Prioritization—Survey Results 12
3. FSAP Experiences with Remote Engagements 14
4. Changes in Scope: Detailed Assessment Reports and Technical Notes, 2009–14 15
5. Changes in Scope: FSSAs and FSRs, 2009–14 16
6. FSAP Analytical Focus—Survey Results 17
7. FSAP's Quantitative Tools 26
8. FSAP Recommendations 29
9. National Authorities' Positive Views on Article IV Staff Reports 31
10. Traction: Integration with Article IV Consultations 32
11. Public Awareness of the FSAP 34
12. FSAP Coverage 35

13. Prioritizing the Voluntary Assessments 39
14. IMF's Overall FSAP Costs 43
15. Distribution of IMF's FSAP Costs Across Assessments, 2009–18 43
16. FSAP Costs and Financial System Size 44
17. FSAP Costs to Authorities 45

TABLES

1. Aim I: Proposals to Strengthen Scoping 25
2. Aim II: Proposals to Strengthen Quantitative Toolkit 28
3. Aim III: Proposals to Increase Traction 34
4. Jurisdictions with Mandatory Assessments—S47 38
5. Aim IV: Proposals on Participation 42
6. 2021 FSAP Review—Summary of Proposals 46

APPENDICES

I. A Brief History of the FSAP 55
II. The 2014 FSAP Review Agenda and Follow Up 56
III. Anti-Money Laundering and Combating the Financing of Terrorism 57
IV. FSSR and FSAP: Complementarities and Differences 58
V. Methodology for Determining Systemically Important Financial Sectors 59
VI. FSAP Review Surveys 63
VII. Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance: Text of Amended Decision 64

References 71

Glossary

ADs	Area departments (of the International Monetary Fund)
CCP	Central Counterparty
CSR	Comprehensive Surveillance Review
CPM	Clique Percolation Method
DAR	Detailed Assessment Report
ED	Executive Director (of the International Monetary Fund)
EMDE	Emerging Markets and Developing Economies
ELA	Emergency Liquidity Assistance
FATF	Financial Action Task Force
FMI	Financial market infrastructures
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSSA	Financial System Stability Assessment
FSSR	Financial Sector Stability Review
FSR	Financial Stability Report (published by a central bank)
FTE	Full-Time Equivalent
FY	Financial year
GFSR	Global Financial Stability Report
ICT	Information and communication technology
IEO	Independent Evaluation Office (of the International Monetary Fund)
IMF	International Monetary Fund
MCM	Monetary and Capital Markets Department
NBFI	Nonbank financial institution
NGFS	Network of Central Banks and Supervisors for Greening of the Financial System
ROSC	Report on Observance of Standards and Codes
S29	The 29 jurisdictions with systemically important financial sectors in 2013
SIFS	Systemically Important Financial Sector
SPR	Strategy and Policy Review Department
SSB	Standard Setting Body
TA	Technical Assistance
TN	Technical Note

EXECUTIVE SUMMARY

1. **The FSAP has evolved in response to changing global challenges**. The FSAP was established in the wake of the Asian financial crisis two decades ago as a joint program of the IMF and the World Bank. Since then, the FSAP has been reviewed four times, each time resulting in adjustments to ensure the program remains relevant to new challenges. Following the Global Financial Crisis (GFC), a landmark change was the 2010 decision by the Fund (IMF, 2010) to make FSAs under the FSAP a mandatory part of Article IV surveillance for jurisdictions with SIFS. The decision was a major step toward integrating the FSAP with Fund surveillance for the most systemic jurisdictions and ensuring a risk-based allocation of FSAP resources globally. Since the 2014 Review (IMF, 2014a), financial stability assessments have put greater emphasis on macroprudential frameworks and policies, nonbank financial institutions (NBFIs), and analysis of interconnectedness. To complement the FSAP's increased surveillance focus with strengthened technical assistance (TA), the Fund introduced the Financial Sector Stability Review (FSSR)—financed by a trust fund—to help low and lower-middle-income economies diagnose financial sector vulnerabilities and prioritize financial sector reforms, supported by targeted TA.

2. **The program is highly and increasingly valued for its contributions to surveillance**. Stakeholder surveys undertaken in the context of this Review suggest the program is well regarded, and its value has grown over the last decade. Country authorities especially value the FSAP for focusing on the most relevant issues and providing in-depth analysis framed in the country's circumstances. They also appreciate the clarity and candor of the recommendations, their helpful contributions to policy debates, and the overall usefulness and impact of the exercise. Authorities report high implementation rates of recommendations and cite political economy constraints as the top reported reason for not implementing recommendations. The survey results bring out that FSAP findings are valuable not only to individual countries but also to the international community. The FSAP's narrower focus and greater depth compared to Article IV consultations mean that it is a complement to—rather than a substitute for—the higher-frequency macrofinancial surveillance in the Article IV consultations.

3. **Going forward, the FSAP will need to continue to adapt to the evolving financial stability landscape.** The pandemic has highlighted the importance of assessing financial stability risks from vulnerabilities in the household, corporate, and public sectors, including from possibly long-lasting scarring effects. Vulnerabilities in NBFIs and financial market infrastructures will also require renewed attention. Moreover, the pandemic has accelerated the adoption of digitalization in finance, which can improve financial inclusion but also pose potential risks to stability. The implications of the pandemic for financial stability—including from the eventual withdrawal of extensive policy support measures—will be a focus of FSAPs in the coming years. Addressing global climate change and its implications for the financial sector have emerged at the center of interest for many in the Fund's membership. Other challenges include assessing the implementation of regulatory reforms, while some global standards are still evolving and becoming more complex, and new macroprudential policy frameworks and instruments.

4. This Review aims to strengthen the FSAP's key role in the Fund's efforts towards building more resilient and sustainable financial systems (Box 1). The proposals in the Review aim to maintain the elements that have made the FSAP successful, while making sure that it is sufficiently nimble to address emerging challenges in a rapidly changing financial system. The Review proposes to further strengthen the risk-focused approach to scoping financial stability assessment (FSAs), making even greater use of flexibility within the three-pillar framework to prioritize scope around the most systemically important risks, including in areas such as climate and technology. The Review suggests strengthening quantitative tools on the modeling of interconnectedness and macrofinancial feedback effects, the calibration of macroprudential policies, and the development of financial stability analysis frameworks for risks related to climate and technological changes. The Review also proposes operational steps to increase traction by better supporting financial surveillance in Article IV consultations. On country participation, the paper proposes to strengthen the risk-based approach to mandatory assessments by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency. It also proposes to clarify the expectations for supra-national authorities' participation in assessments.

Box 1. The FSAP Agenda: Toward a More Stable and Sustainable Financial System

1. ***Scoping***. The Review proposes further strengthening the risk-focused approach to scoping FSAs, including by making even greater use of flexibility within the three-pillar framework to customize scope. Given the increased relevance and recognition of climate-related financial risks, it is expected that they will feature more prominently in FSAPs.

2. ***Quantitative tools****.* The Review proposes to improve the modeling of interconnectedness and macrofinancial feedback effects, the coverage of nonbanks, the calibration of macroprudential policies, development of financial stability analysis frameworks for risks related to climate change and technological change. Standardizing core quantitative tools will improve efficiency.

3. ***Traction***. The Review proposes operational steps to increase traction by further deepening the integration of FSAPs and Article IV consultations by deploying new tools to help risk analysis by country teams, piloting increased cross-mission participation, and improved follow-up on FSAPs. It also proposes to increase traction by reflecting authorities' views in FSSAs.

4. ***Country participation***. The Review proposes further strengthen the risk-based approach to mandatory assessments by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency. It also clarifies the expectations for supra-national authorities' participation in assessments.

CONTEXT

5. The FSAP aims to provide comprehensive and deep financial sector assessments. The program was launched in the aftermath of the Asian Financial Crisis and is conducted by the IMF alone in advanced economies and jointly by the IMF and the World Bank in emerging markets and developing economies (EMDEs). The Fund concentrates on financial stability issues, which are reported in the Financial System Stability Assessment (FSSA). The 2009 FSAP Review (IMF, 2009a and 2009b) introduced a distinction between stability and development modules. It also clarified that stability assessments consist of three pillars: risk assessment, financial sector policy framework, and financial safety nets. The GFC illustrated that systemic financial crises could materialize in major advanced economies that had not volunteered for an FSAP. A landmark change in the FSAP took place in 2010 when the IMF's Executive Board mandated that jurisdictions with SIFS participate in FSAs as a part of Fund surveillance (Appendix I).[1]

6. The FSAP is highly and increasingly valued for its contributions to surveillance (Figure 1). Surveys of stakeholders—including country authorities (mostly central banks and financial supervisors), Executive Directors, area department mission chiefs, Strategy and Policy Review Department (SPR) reviewers, FSAP mission chiefs, and Monetary and Capital Markets Department (MCM) staff—suggest the program is not only well regarded, but also that its value has grown over the last decade. The surveys indicate that country authorities especially value the FSAP for focusing on the most relevant issues and providing in-depth analysis that is framed in the country's circumstances. The responses bring out that FSAP findings are valuable not only to the individual country being assessed but also to the international community. Respondents reported high levels of satisfaction with the program's scope, the granularity of its analysis, and the quality of recommendations. In written comments, many country respondents emphasized that they appreciated the in-depth engagement with FSAP experts during missions, and the recommendations were useful in guiding financial sector reforms.

7. The FSAP has made important progress since the 2014 Review (Appendix II). FSAP stress tests have more frequently covered nonbanks and featured an explicit analysis of interconnectedness; stress test methodologies have become more standardized, and stress test results have been more widely disseminated. FSAPs have significantly increased the coverage of macroprudential frameworks and policies. To promote a more macrofinancial approach to supervisory assessments, the 2017 Board Paper on the Use of Supervisory Standards in the FSAP (IMF 2017a and 2017b) spelled out the criteria to decide between a Detailed Assessment Report (DAR) and a more focused Technical Note (TN). In the 2019 review of the Fund's anti-money laundering and combating the financing of terrorism (AML/CFT) strategy (IMF, 2019), Directors reaffirmed that updates on AML/CFT issues are an important part of the FSAP (Appendix III). To complement the FSAP's surveillance focus by strengthened technical assistance (TA), the Fund introduced the Financial Sector Stability Review (FSSR)—financed by a trust fund—to help low and

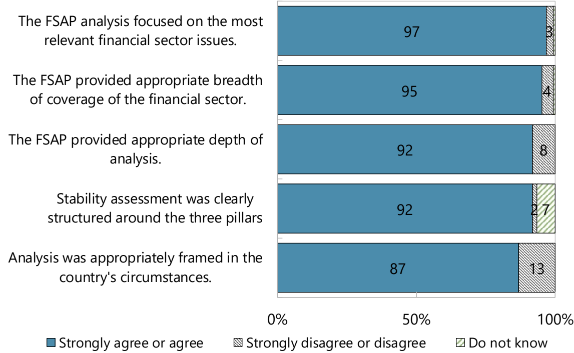
[1] Members may have more than one SIFS. Where a member's territory is identified as having a SIFS, all obligations under the Fund's Articles of Agreement remain with the member.

lower-middle-income economies diagnose financial sector vulnerabilities and prioritize financial sector reforms, supported by targeted TA (Appendix IV).

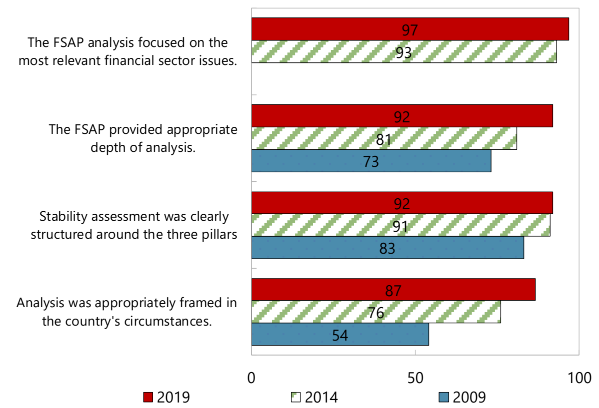
Figure 1. The Value of the FSAP in IMF's Financial Surveillance

The FSAP provides valuable financial stability assessments…

Authorities' views on the scope of FSAP analysis
(Percent; share of responses)

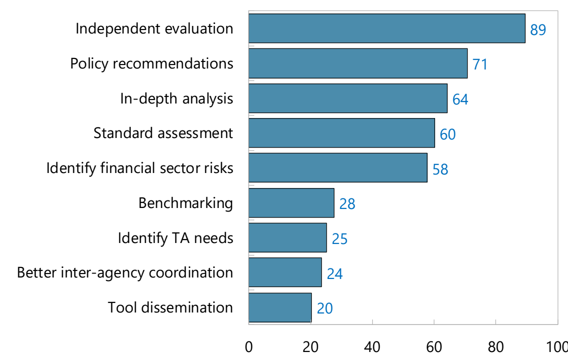


… and the authorities' approval of the FSAP has increased over time



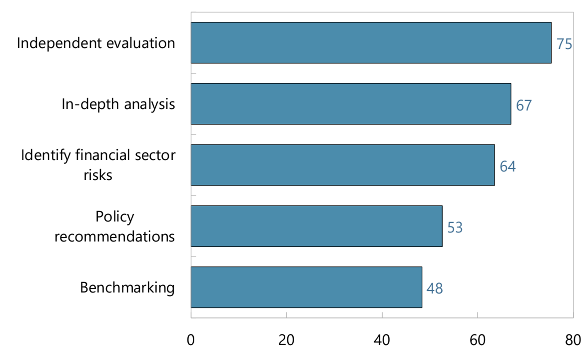
Authorities value FSAP highly for their own country…

Usefulness of the FSAP: own jurisdiction
(In percent of all responses, multiple answers, country authority)



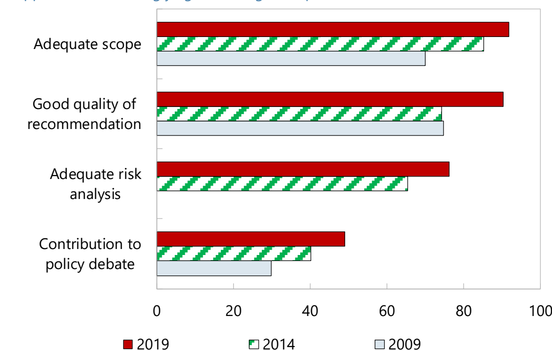
…as well as for other jurisdictions

Usefulness of the FSAP: other jurisdictions
(In percent of all responses, multiple answers, country authority)



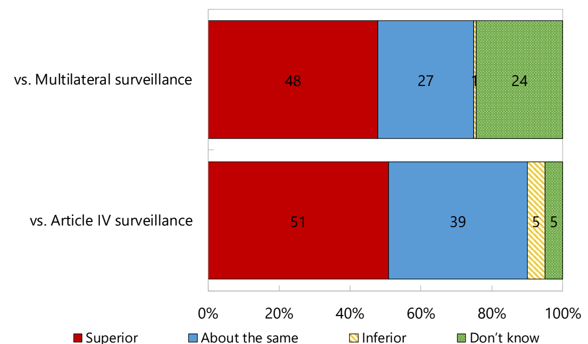
Country authorities value FSAP highly and increasingly over time…

Country Authorities' Views on FSAP Over Time
(Approval rates; strongly agree and agree in percent)



…and more than other IMF products in the area of financial surveillance.

Authorities' views on the usefulness of the FSAP relative to other IMF surveillance activities



Source: IMF FSAP Review Surveys (2009, 2014, and 2019) and staff calculations. See details in the background paper on the survey. Respondents from national authorities are mostly central banks and financial supervisors who are counterparts of FSAPs.

8. This Review seeks to position the FSAP to respond to challenges that are arising in the fast-evolving global macrofinancial landscape:

- *Elevated financial vulnerabilities from the pandemic:* The pandemic has severely impacted the household, corporate, and public sectors. Potential risks to financial stability—including from lasting scarring effects and risks from the unwinding of extraordinary support policy measures—will be relevant in the coming years. Market turbulence at the start of this crisis highlighted complex risks in multiple intersections of the financial system architecture.
- *Climate-related financial risks:* Climate change generates financial stability risks that are challenging to assess, reflecting very high uncertainty over their timing and likelihood, as well as complex micro-level dependencies and data availability. Climate change also raises adaptation opportunities for the financial sector, creating new products and markets that may generate distinctive risks to financial stability. The FSAP program offers a unique vehicle for assessing these risks and opportunities and the associated implications for the regulatory framework going forward.
- *Digitalization:* Financial innovation is widening the perimeter of risks to financial stability outside the banking system, including from nonbanks and new large platforms providing financial services. At the same time, many financial systems are facing increased risks from cybersecurity challenges.
- *Regulatory reforms:* Global reforms to the banking system are largely agreed upon, but implementation is stretched out, and delays and setbacks are surfacing at national levels. Further work is needed on preparedness to resolve cross-border financial institutions. The international reform agenda on NBFIs is still in progress, with further actions needed on strengthening the supervision of central counterparties, asset managers, insurers, and payments (including digital money). Macroprudential policy frameworks and the calibration of instruments are still work in progress.

9. Against this background, the FSAP Review has five main aims:

- examine the scope of financial stability assessments under the FSAP;
- strengthen the FSAP's quantitative tools;
- improve the FSAP's traction, including integration with Article IVs and engagement with the country authorities and the IMF's Executive Board;
- review country participation, including the list of mandatory assessments, and
- review FSAP resources.

10. From the viewpoint of the Fund's risk profile, the FSAP Review provides mitigation opportunities against risks and spillovers from macrofinancial linkages by strengthening financial surveillance. The FSAP Review has been closely coordinated with the Comprehensive Surveillance Review (CSR) and the World Bank. This Review's proposals are aligned with those of the

CSR on macrofinancial surveillance in Article IV consultations. As with previous FSAP Reviews, the current review is being done at both the IMF and the World Bank, reflecting the joint nature of the program, with the staff-level Bank-Fund Financial Sector Liaison Committee ensuring close coordination.

AIM I: SCOPE

A. Overall Scope

The Three Pillar Framework

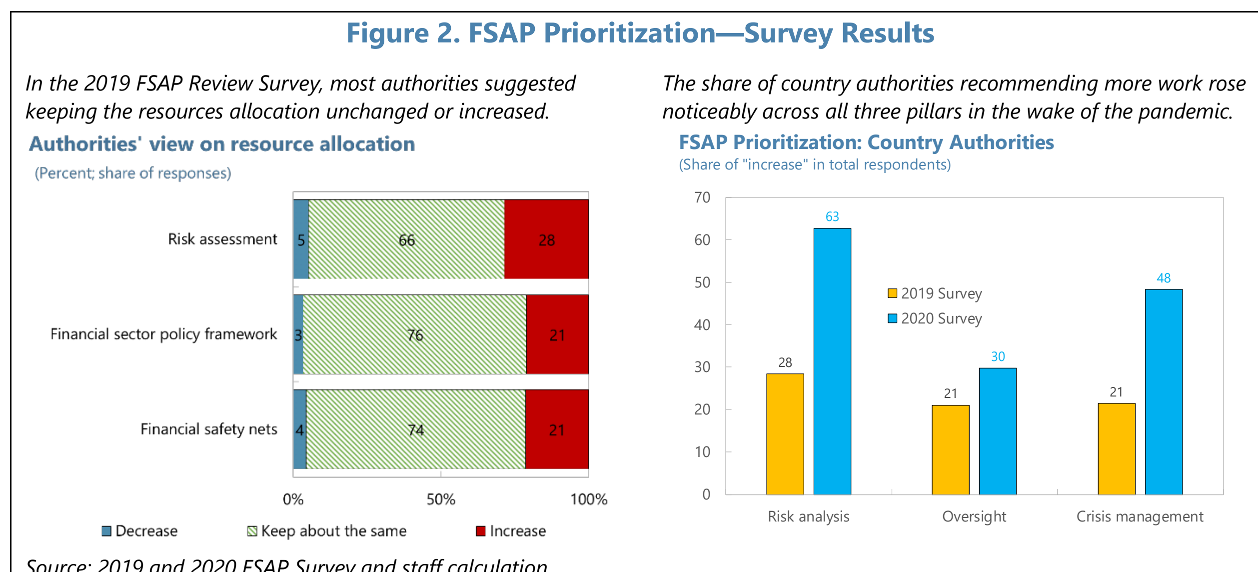
11. FSAs under the FSAP have been based on a three-pillar framework since 2009. The 2009 FSAP Review (IMF, 2009a, 2009b, and 2009c) defined the three pillars: risk analysis, oversight, and safety nets. This framework allows the scoping of assessments to consider different risk profiles and the complexity of policy frameworks and practices in member countries. In recent years, new financial stability risk factors have emerged, including risks from nonbanks, fintech, cyber, and climate.

12. Country authorities generally reported that the three pillars provide a useful, risk-based framework for scoping FSAs. In their survey responses, more than 90 percent of authorities agreed or strongly agreed that the FSA was clearly structured around the three pillars. Also, more than 90 percent of the authorities agreed or strongly agreed that the FSAP analysis focused on the most relevant financial sector issues. Similarly, more than 90 percent of the respondents agreed or strongly agreed that the FSAP provided an appropriate breadth of coverage of the financial sector and the appropriate depth of analysis.

13. Surveys suggested a high degree of satisfaction with the customization and prioritization of FSAPs. The scope of FSAPs is tailored to each jurisdiction, guided by the FSAP Risk Assessment Matrix (RAM). The RAM focuses on the main systemic risks facing a jurisdiction based on its macroeconomic features, characteristics of the financial system, and the position of its real and financial cycles. It is the key vehicle at the scoping stage to prioritize among many potential risks. Both the design of the RAM and the discussion of scope are conducted in close consultation with Article IV teams.[2] Overall, 87 percent of respondents agreed or strongly agreed that analysis was appropriately framed in the country's circumstances with the remainder calling for greater customization. Some—mostly respondents from jurisdictions that had pre-2014 FSAPs—noted that assessments rely heavily on international standards. Nonetheless, a majority (60 percent) of respondents highlighted the standardized principle-by-principle assessments of compliance with international standards as being among the most useful aspects of the FSAP.

[2] Furthermore, the FSAP Approach and Staffing note, an internal document prepared before the scoping discussion with authorities, is required to include a summary of recent Article IV analysis and policy recommendation on financial sector issues.

Figure 2. FSAP Prioritization—Survey Results



Source: 2019 and 2020 FSAP Survey and staff calculation.

14. Surveys of stakeholders show high and rising interest in all pillars of the FSAP, which has increased since the pandemic (Figure 2)**.** In the 2019 FSAP Review survey, authorities supported the balance across the three pillars. For each of the three pillars, some 95 percent of the respondents thought that the pillars' resources should be kept the same or increased, with only about 5 percent suggesting a reduction. The updated survey in 2020 points to increased demand across all three pillars of FSAP by authorities and Executive Directors. These results underscore the importance of covering each of the three pillars in an FSAP while prioritizing among specific risk topics within each pillar.

Implications of COVID-19

15. The pandemic has highlighted several new risks that could materialize more visibly once policy support measures are withdrawn. The current shock did not originate in the financial system. Exceptional policy measures (e.g., income support for borrowers, credit guarantees, moratoria, among others) have thus far limited the impact of the pandemic on the financial sector. However, underlying corporate liquidity risks could morph into insolvencies and raise credit risks to banks in the near future, especially if the recovery is delayed or policy support dissipates prematurely. Financial sector exposures to the public sector have increased as fiscal deficits have widened to support the economy, which could eventually bring sovereign-financial linkages to the fore. Meanwhile, risks facing NBFIs have increased, including from sizeable liquidity mismatches. Their role in the credit market, including risky leveraged-loan markets, has also increased since the GFC, elevating the feedback from their stress to the economic recovery. Moreover, during this crisis, liquidity-strapped asset managers have become even more connected to banks as they drew credit lines, increasing the potential contagion from market selloffs to banks. The implementation of the global regulatory reform agenda has also slowed down during the pandemic (Financial Stability Board, FSB, 2020 annual report).

16. FSAPs in the next five years will likely face several common themes whose relevance will vary depending on the recovery phase from the pandemic. Most countries are still in the first phase requiring continued policy support while uncertainty over the pandemic and economic prospects remains high. Monetary policy looks set to remain accommodative in most cases; support measures for the nonfinancial private sector are in place; room for regulatory support is being used, and macroprudential buffers have been released where feasible. Once the health crisis is under control, policy measures may shift to starting to unwind extraordinary measures such as liquidity support while balancing supporting the recovery. Part of the corporate sector might go through a major restructuring with non-viable firms filing for bankruptcy and increasing credit risks to financial institutions. Banks will need to support financing the economic recovery by restructuring problem assets. This restructuring could be accompanied by a significant reallocation of resources across industries—while this occurs, the debt overhang will likely weigh on investment. Once economic recovery is underway, prudential buffers will need to be rebuilt. The global regulatory reform agenda will likely be refocused on areas of stress revealed during the pandemic, including the role of NBFIs and market liquidity and functioning.

17. The flexibility of the three-pillar approach can be applied in FSAPs over the next several years to adjust their focus as the effects of the pandemic are addressed. On risk analysis, FSAPs may need to dive deeper and more often into assessing granular risks to financial stability from vulnerabilities in the household and corporate sectors, bank-sovereign linkages, and the interconnectedness of financial systems and vulnerabilities in NBFIs. On regulation, FSAPs will need to assess the effectiveness and adequacy of various regulatory responses and recommend adaptations as needed, guided by, for example, the joint IMF-World Bank staff paper on regulatory issues (IMF and World Bank, 2020) and various MCM staff COVID-19 notes (such as IMF, 2020a and 2020b). The potential distress of the financial system due to COVID may test the recently reformed frameworks for the resolution of financial institutions, safety nets, and crisis management. In addition, post-pandemic scarring could require FSAPs to consider corporate debt restructuring and associated frameworks.

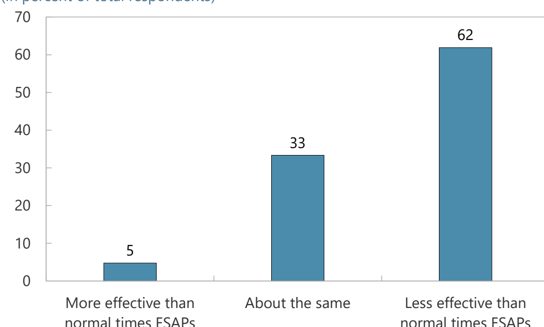
Modalities

18. Going forward, remote engagement could complement but not substitute for physical missions. Surveys show that MCM staff consider that remote engagement is less effective than physical missions, given the challenges of building relationships with authorities and engaging in sensitive conversations. Time zone differences and remote sharing of confidential data are other impediments. In staff's view, the lower effectiveness of remote engagement may offset travel cost savings, at least for some types of missions. The survey comments suggest that remote engagement could be appropriate for the scoping mission, but that physical visits would be more effective for main missions.

Figure 3. FSAP Experiences with Remote Engagements

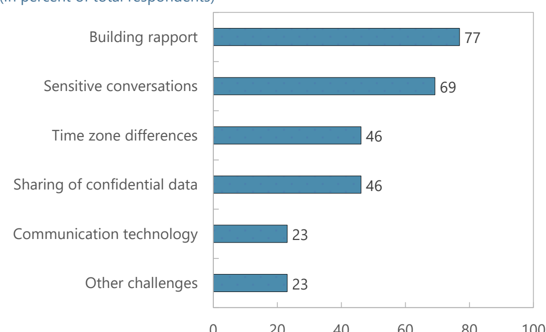
Q: How was your experience with remote FSAP missions compared to "normal-time" FSAPs?

MCM staff consider that remote engagement is less effective.



Q: Why was this FSAP less effective than normal-time FSAPs?

Building rapport, holding sensitive conversations, followed by time zone differences, and sharing of confidential data are key contributors.



Source: 2020 FSAP Review Survey.

Risk-Focused Approach to Assessing International Standards

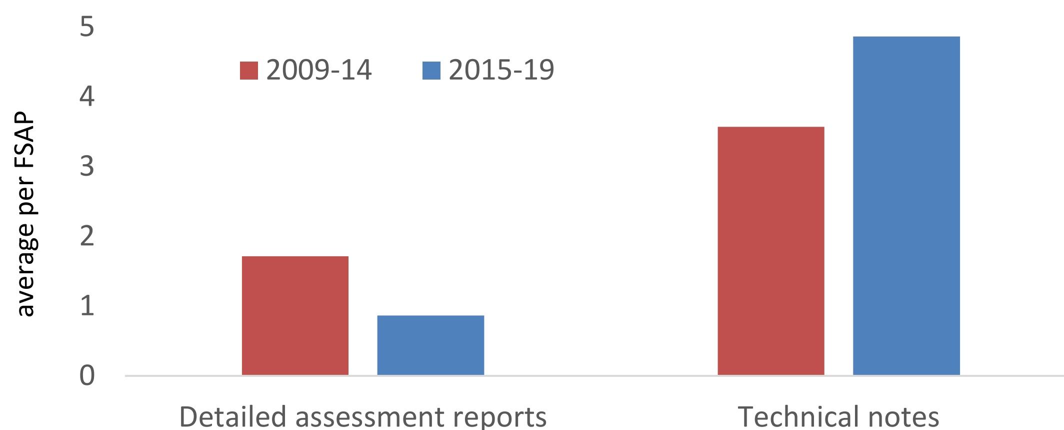
19. Given the emphasis on systemic risk, FSAP coverage of oversight and financial safety nets has become more risk-based since 2014. Since the 2014 Review (IMF 2014a), in countries where compliance with updated financial sector standards has been established in previous FSAPs, assessments under the FSAP have made less use of formal graded assessments of standards and codes and more use of focused reviews, which allow for a deeper dive into selected topics. As a result, the number of Detailed Assessment Reports (DARs) per FSAP has declined while the number of Technical Notes (TNs) has increased (Figure 4). For new standards, pilot assessments were conducted in selected jurisdictions in consultation with country authorities.

20. Authorities are generally comfortable with the guidance on conducting graded, detailed assessments versus focused reviews of supervisory issues. The guidance, spelled out in IMF (2017a), is that "the decision about whether to conduct a graded assessment or a focused review drawing on a supervisory standard in a specific area will continue to be by agreement between staff and the authorities. The decision will be based on the relative importance of the specific sector, the degree of vulnerabilities, the overall priorities of the FSAP, the extent of changes in the sector or the oversight framework, and the extent of changes in the standard or assessment methodology since the last graded assessment." In responding to the FSAP survey, 86 percent of the respondents thought the IMF (2017a) guidance was appropriate. Overall, respondents supported the greater flexibility enabled by the focused review of supervisory issues, although some observed that the DARs had some benefits due to standardization and comparability. Among the specific

suggestions in this area was to discontinue a Report on the Observance of Standards and Codes (ROSC) when a DAR is being published.[3]

Figure 4. Changes in Scope: Detailed Assessment Reports and Technical Notes, 2009–14

The structure of FSAP outputs has been shifting, with lower use of Detailed Assessment Reports.



Source: IMF staff based on Mission Tracking System and a survey of relevant central bank websites.

Thematic approach

21. A thematic focus on one or two issues in an FSAP can work well when there has been a positive comprehensive assessment under the latest standards. For example, in Singapore, the 2013 FSAP undertook a comprehensive assessment of the financial system, including three full standards assessments for banks, insurers, and securities markets and financial intermediaries using the updated standards for banks (issued in 2012) and insurers (issued in 2011) and standards for securities markets and financial intermediaries at that time. The FSAP found regulation and supervision "among the best globally," facing "manageable" risks, and crisis management and resolution arrangements "generally strong." Given no material increase in risks or weakening in frameworks, the 2019 FSAP could focus on two themes: the financial system's cross-border links and the challenges posed by current and prospective financial innovation. In general, selecting 1-2 themes should be based on their systemic relevance to financial stability in the particular jurisdiction informed by the FSAP RAM. The thematic approach may also be useful for regional exercises in regions with strong financial linkages but without supra-national authorities.

B. Pillar 1: Scope of Quantitative Risk Analysis

22. A review of FSAs since 2009 points to shifts in the focus of the risk analysis in line with the evolving financial landscape. Potential sources of financial stability risks have been expanding with the growth of NBFIs in asset, funding, and credit markets,[4] increasing cross-border and cross-

[3] The ROSC is a summary of a DAR (without the grades). Discontinuing the preparation of ROSCs can reduce some duplicative work.

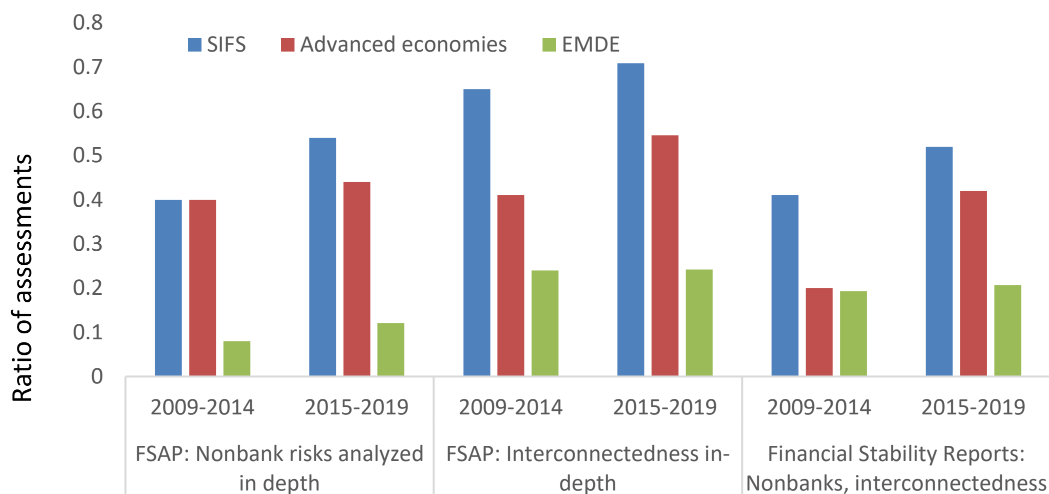
[4] See the Global Monitoring Report on NBFIs by the Financial Stability Board (FSB).

sectoral interconnectedness, and new risks from digitalization. The most visible aspects of this evolution are shifts in risks from banks to NBFIs in many major jurisdictions and the growing emphasis on interconnectedness. In response, FSAPs have been expanding the menu of potential risk analysis, increasing their focus on NBFIs and interconnectedness, largely in line with similar changes in scope and focus observed in financial stability reports issued by central banks (Figure 5). Notwithstanding the broader menu of potential topics, resource costs have been broadly flat, suggesting that prioritization efforts have been successful.

23. These increases in breadth and depth of risk analysis were possible in part thanks to improved data quality and access to data, though challenges remain. Virtually all jurisdictions now share confidential institution-by-institution supervisory data for stress testing, a marked change since the 2014 Review that has allowed FSAP stress tests to significantly deepen the granularity and robustness of their analysis. However, the modalities of data access in some cases can materially increase FSAP costs.[5] Moreover, in certain areas, data gaps remain a key constraint, especially in the case of assessing interconnectedness across parts of the financial system, contagion in financial markets, and emerging risks.[6, 7]

Figure 5. Changes in Scope: FSSAs and FSRs, 2009–14

The scope of the quantitative work has been shifting towards analyses of NBFIs and interconnectedness, in line with similar trends in central banks' financial stability reports, especially among SIFS and advanced economies where the NBFI sector is more developed and data showing interconnectedness is more easily available than EMDEs.



Source: IMF staff based on Mission Tracking System and a survey of relevant central bank websites.

[5] For example, some authorities have provided limited access via a dedicated data room, which often requires FSAP mission members to spend valuable time on data entry. Moreover, physical data rooms cannot be accessed while pandemic-related travel restrictions remain in place.

[6] The depth and quality of the analyses on these risks are constrained by incomplete or too big to integrate data (e.g., transaction-level data that are partially collected by various agencies).

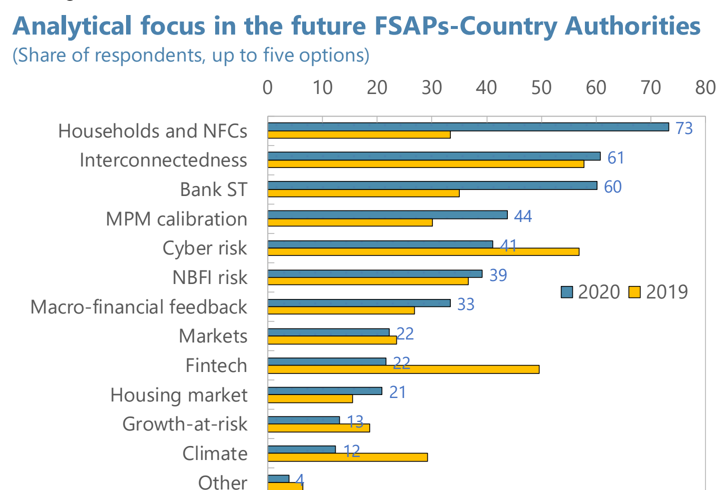
[7] More broadly, the Fund is seeking to enhance data availability for macrofinancial surveillance, including through the ongoing review of the policy on Data Provision to the Fund for Surveillance Purposes. However, access to granular data needed for FSAP risk analysis remains a challenge.

24. The pandemic will increase focus on risks to financial stability from corporate and household vulnerabilities and bank-sovereign linkages. The 2020 survey of stakeholders emphasized the need for increased analysis of crisis-related risks. Country authorities are now more interested in vulnerability assessments of the household and corporate sectors and bank stress testing, followed by macrofinancial feedback effects and quantitative calibration of macroprudential measures (MPMs). Demand for interconnectedness analysis remains strong. Staff view that risks from potential bank-sovereign loops and those related to climate and technological change, including cyber issues, also merit further analysis.

25. Prioritizing the risk analysis on the most important risks will be even more critical for future FSAPs. There is significant value to continue core FSAP risk analysis, including bank solvency and liquidity stress tests, especially in the wake of the pandemic (as indicated by the 2020 FSAP Review Survey, Figure 6). FSAP stress tests are essential for the staff to be able to provide independent assessments of stability risks, akin to the independent macro assessments provided in other Fund surveillance.[8] At the same time, the ambit of risk analysis has been expanding with new risks while resources remain constrained. To strike the right balance, staff will continue to improve the efficiency of core risk analysis tools. Application of new standardized tools—including for corporate and household stress testing and bank-sovereign linkages, which are highly relevant in the post-pandemic environment—could also offer some savings to create space for new risk analyses. More broadly, the combination of some pilots, rigorous prioritization leveraging the RAM, and an increased thematic approach should help manage the scope of risk analysis without much resource impact.

Figure 6. FSAP Analytical Focus—Survey Results

Demand for household and NFC analysis and bank stress tests rose upon the COVID-19 crisis while interest in interconnectedness remains high.



Sources: FSAP Survey

Source: 2019 and 2020 FSAP Review Survey and staff calculation.
MPM = macroprudential policy measure; ST: stress test

[8] Running parallel exercises is the most effective method to assess a framework. Many authorities compare the results of their own model to those produced by financial institutions to validate internal models.

C. Pillar 2: Oversight

Macroprudential Policy

26. The coverage of macroprudential policy issues in FSAPs has expanded substantially since the 2014 Review. This was spurred in part by the Staff Guidance Note on Macroprudential Policy (IMF 2014b), which set out a framework for the Fund's advice in surveillance. Macroprudential policy advice has become more consistent across countries, with essentially all FSAPs now featuring a dedicated section in the FSSA, supported by TNs on macroprudential frameworks and tools. FSAPs generally assess three dimensions of macroprudential policy: institutional underpinnings, operational capacity of the authorities, and a mapping of the risk analysis to priority actions. FSAPs have increasingly leveraged the solvency, liquidity, and interconnectedness analysis to provide macroprudential advice, although technical gaps remain. Some FSAPs have more recently conducted dedicated analyses to help guide the calibration or assess the impact of macroprudential tools (see background paper on quantitative analysis).

27. Future FSAPs will go further in this direction, featuring a more explicit use of solvency and liquidity stress tests to inform the assessment of macroprudential policy settings. This complements indicator-based decision-making. Stress tests, once augmented to include macrofinancial feedback effects, can inform buffer sizes as well as be used to conduct an ex-ante impact assessment of possible future measures. In addition, analytical tools using microdata can be considered more explicitly in the future to inform the calibration of borrower-based tools, such as loan-to-value and debt service-to-income ratios.

Microprudential Policy

28. The last five years have seen significant progress in the implementation of the international regulatory reform agenda, but some common challenges have emerged. Countries have introduced many elements of the post-GFC global regulatory reforms. But not all countries nor all areas of regulatory frameworks have seen advances, pointing to a need for continued focus in FSAPs. Standards assessments have often found weaknesses in the independence, resources, and accountability of the supervisory authorities, which undermine effective supervision. Even where de jure frameworks have been modernized, de facto application could be limited. Many jurisdictions show weakness in corporate governance with risks arising from related party concerns and complex conglomerate structures.

29. Assessments of the effectiveness of prudential oversight under pillar 2 will remain a critical component of the FSAPs as international standards continue to evolve. The global financial system continues to undergo profound changes, not least from digitization and the rising roles of NBFIs in asset, funding, and credit markets, and market finance. These changes produce new channels for the propagation and transmission of systemic risk. In response, existing standards continue to be modified, and new standards continue to be developed, especially for NBFIs. For example, the revised insurance standards came out only in 2019. Regulatory reforms for investment

funds are also relatively new[9] and may need further enhancement in the light of lessons learned from the market turbulence during the pandemic. International standards for payments have not yet fully caught up with digitalization. Also, the evolution of these risks is country specific. Thus, the scope of Pillar 2 work in individual FSAPs will need to integrate country-specific characteristics into the assessment of evolving global regulatory reform measures.

30. In the next several years, the regulatory response to COVID-19 and exit strategies could affect oversight assessment as well. COVID-19 tested the oversight framework for the first time since the global regulatory reforms. National authorities took various crisis-response measures, such as loan moratoria, expanding government guarantees, releasing additional capital and liquidity buffers, limiting capital distributions to strengthen buffers while downside risks remained high, intervention in markets as the market maker of last resort, and, in some cases, regulatory relief measures that are not compatible with international standards. The SSBs, IMF, and World Bank issued various guidance and statements clarifying the extent to which these measures would be viewed as compliant with international best practices and how to account for the impact of these measures in supervisory reporting. Modalities for and implications of exits from these extraordinary policies will be important issues for many FSAPs going forward to consider once a durable recovery from the pandemic is in place across the membership.

D. Pillar 3: Financial Safety Net

31. Effective frameworks for crisis management, safety net, and resolution of financial institutions are critical components of the financial stability framework. FSAPs have a central role in assessing the robustness of countries' financial safety nets, i.e., the arrangements for supervisory intervention; resolution of financial institutions; deposit insurance, and emergency liquidity assistance (ELA). The GFC revealed that the frameworks at that time were primarily designed for the idiosyncratic distress of a financial institution and not sufficient to handle failing systemically important financial institutions whose cross-border operations generated complexities and difficult discussions on burden-sharing. The COVID-19 pandemic places an additional premium on authorities' capacity to respond effectively to any distress that may emerge as exceptional measures are being phased out, and its long-term economic fallout becomes clear.

32. Evaluations of financial safety nets are guided by international standards that have been developed after the GFC. The FSB adopted the *Key Attributes of Effective Resolution Regimes for Financial Institutions* (KA) in 2011 and republished in 2014 with additional guidance. The KA set out the core elements of regimes that could enable authorities to resolve financial institutions in an orderly manner without exposing taxpayers to losses and while maintaining continuity of vital economic functions. The *Core Principles (CP) for Effective Deposit Insurance Systems*, revised in 2014, provide benchmarks for establishing or reforming deposit insurance schemes, covering governance, membership, coverage limits, funding modalities, and arrangements for quickly reimbursing insured

[9] FSB's 2017 Recommendations to Address Structural Vulnerabilities from Asset Management Activities.

depositors.[10] The KA were designed to apply to both banks and NBFIs, using a modular approach. The IMF Board endorsed the inclusion of the CP and the KA in the Reviews of the Standards and Code Initiative in 2011 and 2017, respectively.

33. **While many jurisdictions have strengthened the resolution framework since the 2014 FSAP Review, less progress has been made in low-income and developing countries.** Advanced economies have continued to align their bank resolution regimes with international standards and to enhance resolution planning for systemically important NBFIs in train. Still, further progress remains necessary to ensure that all G-SIBs can be effectively resolved, especially regarding the development of resolution funding strategies; frameworks for conducting valuations in resolution; continuity of access to FMIs; and the finalization of cross-border cooperation agreements.[11] Experience with bank failures in low-income and developing countries since the 2014 Review has highlighted continuing weaknesses in the financial safety nets. The principles of proportionality should guide their design and implementation so that the reforms do not impose undue burdens on financial institutions and/or distort the functioning of financial markets (Nolte and Hoelscher, 2020).

34. **Methodologies for conducting formal assessments of resolution regimes continue to evolve.** In 2016, the FSB issued the KA Assessment Methodology for the Banking Sector, and the Board endorsed it for undertaking graded assessments (IMF 2017a and b). In 2020, the FSB—in consultation with the International Association of Insurance Supervisors, WB, and IMF—developed a KA Assessment Methodology for the Insurance Sector, setting out essential criteria to guide assessors. As for deposit insurance, a comprehensive handbook was released by the International Association of Deposit Insurers in 2016, designed to provide additional guidance for assessing a jurisdiction's compliance with the Core Principles.

35. **The Fund and the Bank intend to use the KA methodology as the assessment benchmark for insurance resolution frameworks in FSAPs and stand-alone standards assessments**. Accordingly, the Board is asked to endorse the KA as they apply to the assessment of insurance resolution regimes and the related assessment methodology, which will be used as the benchmark for reviewing insurance resolution regimes in the context of FSAP and stand-alone assessments—namely, the assessments conducted outside of FSAP—(see Proposed Decision 1). The complexity of the standard—on top of the work associated with other elements of Pillar 3 of the FSAP—will place a heavy demand on staff. Therefore, careful prioritization and allocation of resources will be critical to ensure that full (graded) assessments of the observance of the KA, when undertaken, are appropriately resourced.

36. **The COVID-19 crisis does not fundamentally change the desirable design of financial safety nets (IMF, 2020b)**. *Early intervention frameworks* allow supervisors to require prompt corrective actions and monitor emerging weaknesses. Corrective actions should be geared towards restoring capital and liquidity buffers and ensuring long-term viability while curbing excessive risk-

---

[10] The speed of reimbursement should be balanced with allowing adequate time for the consideration of any potential risks associated with ML/TF ahead of repaying depositors.

[11] Also see Evaluation of the effects of too-big-to-fail reforms (consultative paper), FSB, June 2020 and "2020 Resolution Report: be prepared, FSB, November 2020.

taking. The COVID-19 crisis has given rise to substantial uncertainties over economic impact and recovery speed. Thus, supervisors may need to give more time for rebuilding capital and temporarily suspend automatic triggers for prompt corrective actions where relevant (see IMF 2020c). Similarly, initiating *bank resolution* may not always be practicable while the pandemic continues because of, for example, operational challenges and high uncertainty over asset valuations. However, efforts to strengthen resolution regimes, improve operational capabilities and maintain up-to-date resolution plans should continue to ensure that authorities are ready to intervene if significant problems emerge after the removal of exceptional policy support. In addition, the operational readiness and capacity of *deposit insurance schemes* and *ELA frameworks* should be ascertained to ensure they can help underpin confidence and reduce contagion risks.[12]

E. Coverage of Cross-Cutting Issues

Systemic Liquidity

37. Systemic liquidity assessments examine the risk that multiple institutions would simultaneously face liquidity difficulties. It analyzes the amplification effect through interconnectedness in the whole financial system. Systemic liquidity risk differs across countries depending on financial system structures. In systems with well-developed money and capital markets, the risks could materialize as simultaneous dislocation of asset and funding markets. When financial markets are less developed, such as a system dominated by banks mostly funded by deposits, a system-wide liquidity shortfall could happen when there is a net aggregate outflow of liquidity from the economy, such as capital outflows.

38. The assessments span the three pillars of an FSA, but so far, quantitative risk assessments have been missing due to data constraints and methodological challenges. Many FSAPs discussed qualitatively the nature of risks and key markets and participants, prudential rules (including for FMIs), risk monitoring, and the framework for central bank liquidity support (including its design and cross-border backstop arrangements for FX liquidity risks). Ideally, an assessment of systemic liquidity would include a qualitative and quantitative description of financial linkages of a system integrated with liquidity stress tests of systemically important segments (such as banks, mutual funds, and CCPs) or activity-based analysis in most relevant liquidity markets to the extent possible. However, liquidity stress tests have so far focused on banks (and occasionally investment funds).[13] This is because of the lack of market activity-based data and integrated data covering both banks and NBFIs and methodological challenges to model complex interconnectedness and main participants' behavior in an extreme stress scenario.

[12] Given the potential ML/TF risks when reimbursing insured depositors, adequate AML/CFT safeguards should be in place, including effective coordination with relevant AML/CFT authorities and active channels for cooperation and information sharing.

[13] Exceptions include 1) 2017 Luxembourg FSAP conducted detailed liquidity analysis of mutual funds, and Article IV examined the link between banks and mutual funds through deposits; 2) 2020 Philippines FSAP examined liquidity linkage between banks and nonfinancial corporations triggered by COVID-19 related earnings shocks.

39. For certain jurisdictions, systemic liquidity could also be the central macrofinancial topic, closely related to Article IV consultations' external sector assessment. Major central banks have successfully mitigated the impact of systemic liquidity shocks by providing ample liquidity in recent crises. However, central banks in small open economies without reserve currencies (including advanced economies) may not be able to mitigate aggregate FX liquidity shocks fully. Without additional private or official foreign funding, these central banks cannot play the lender of last resort function as their firepower is often limited to international reserves. These are indeed the economies subject to the assessment of reserve adequacy (ARA) of the Article IV consultation, where financial stability risk is considered one of the contributors to external balance distress.[14]

Borrower Vulnerabilities and Distressed Asset Restructuring

40. The potential scarring effects of the pandemic are bringing renewed attention to corporate sector vulnerabilities and nonperforming loan (NPL) management, which could be relevant in FSAPs in the near future.[15, 16] Borrower distress could become more visible as extraordinary support measures are gradually unwound, requiring balance sheet workouts in the real and financial sectors. FSAPs may thus need to consider enhancing the supervision of asset quality and reviewing frameworks for NPL resolution. These are cross-cutting topics spanning regulation, supervision, corporate insolvency, and enforcement of creditor rights frameworks. FSAPs over the next years may need to confront these topics, given the likelihood that they will be conducted in an environment where balance sheet workouts in the real economy will be taking place at very high levels.

41. Past experiences suggest that multiple government agencies typically need to coordinate to establish comprehensive NPL restructuring strategies at the national level. Banks have five options for dealing with large stocks of NPLs: debt restructuring, debtor settlement, risk disposition, collateral enforcement, and insolvency. However, their effectiveness hinges on legislative frameworks and institutional capacity. Therefore, country authorities have a role to play in pillar 2 and 3 areas, including (i) strengthening regulation and supervisory oversight; (ii) enhancing insolvency and creditor rights frameworks; and (iii) facilitating asset disposal (see IMF 2020b). Building on experiences gained in recent FSAPs, deep dives in these areas are likely to become more important in the post-COVID era.[17]

F. Coverage of Risks from Climate Change, Cyber, and Fintech

42. Risks arising from climate change, cyber, and fintech are becoming increasingly important for financial stability. Central banks and financial regulators are paying increased attention to the implications of climate change for financial stability and opportunities for green

[14] See IMF, 2016, Guidance note on the assessment of reserve adequacy and related considerations. MCM has also developed a new tool to assess the impact of FX liquidity shock from the balance of payment stress to various economic sectors and their spillover to the financial system and the international reserves held by the central bank.

[15] See "Global Financial Stability Report: Markets in the Time of COVID-19", April 2020 and "Global Financial Stability Report: Bridge to Recovery", October 2020.

[16] See, for example, recent FSAPs for (2019), (2020), (2020) and (2020).

[17] See, for example, technical notes on NPL resolution prepared for the 2017 Bulgaria and 2020 Italy FSAPs.

investment as suggested by the surge of discussions in international fora such as the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). Meanwhile, the exponential growth in digitalization and interconnectedness of financial services and infrastructures has substantially increased the potential risks to financial stability from cybersecurity challenges. And while fintech can support potential growth and poverty reduction, it may pose risks to consumers and investors and, more broadly, financial stability, development, and integrity.

43. Tackling these issues in FSAPs calls for a combination of approaches across the three pillars. Within Pillar 1, risk analysis could include scenarios of the impact of climate change and fintech over extended horizons. Pillar 2 may need to develop a comprehensive approach to address emerging challenges from climate change, cyber risks, and fintech based on new standards and guidance for these risks under consideration by SSBs as they become available. In addition, the increased role of fintech in payments and cyber risks means that FSAP may need to examine more closely the operational resilience of market intermediaries and financial market infrastructures (FMIs).

44. Addressing these issues calls for collaboration and investing in human capital at the Fund. Climate change analysis will require collaboration with climate scientists and hazard risk specialists (such as catastrophe insurance experts) to correctly identify risks and transmission channels relevant for financial stability and assess their potential impact (Box 2). In the case of cyber risks and fintech, there is a need to work with technology specialists and security/law enforcement agencies. To address expertise limitations in the emerging areas, staff will need to continue working with external experts and broadening expert rosters while also strengthening staff skills with training. In addition to building expertise through hiring and close cooperation with World Bank Group, staff have been intensifying cooperation with other stakeholders on the emerging issues. The FSAP would also benefit from any augmentation of Fund resources for work on climate change and digitalization (fintech and cyber).

45. Future FSAPs will need to strike a balance between traditional topics and new issues based on country circumstances. The pace of digitization of the financial sector and policy efforts to prevent, mitigate, and adapt to climate change will only increase over the next five years. The SSBs are making efforts to incorporate these new risks into their standards and guidance. Analytical frameworks for assessing these risks across the globe are at an early stage but developing rapidly. Meanwhile, traditional macrofinancial risks and assessment of existing (and evolving) standards and codes will remain core topics. Given the resource constraints, FSAP teams will need to leverage the scoping process using qualitative RAM effectively to prioritize the balance of considering emerging risks. It will be important to take a forward-looking approach here, given the rapidly evolving landscape and attendant material risks.

46. Pilot assessments offer a pragmatic approach in the near future. As discussed in detail below, recent FSAPs have covered some emerging risks on a pilot basis, working with external experts in respective fields. Pilot cases are chosen based on the systemic importance of a risk. Pilots have helped develop assessment techniques that could be used in future FSAPs and allowed deeper examination of these issues in relevant FSAPs. Gaining further pilot experience together with broader MCM and IMF/World Bank policy projects, technical assistance, flagships, and collaboration

with the SSBs and other central banks and financial regulators, should allow FSAP teams to increase the coverage on these topics.

Box 2. The Fund's Approach to Assessing Climate Change Risk in the FSAP

The case for climate analysis in FSAPs. Climate risk analysis in FSAPs can help Fund members better understand potential pressure points for the financial system due to physical climate shocks and the transition to a low-carbon economy. It will help inform policies needed to enhance risk management and the resilience of the financial system. Unlike conventional stress testing, climate risk analysis is not focused on quantifying possible capital needs of financial institutions relative to regulatory minima.

Past experience in FSAPs. FSAP risk analysis has sometimes captured physical risks, such as insurance losses and nonperforming loans associated with storms, floods, and droughts. Such analysis has become common in FSAPs for small island states (such as the Bahamas, Jamaica, and Samoa) and other countries prone to natural disasters. FSAPs for major economies with systemically important financial sectors (such as Belgium, Denmark, France, Sweden, and the United States) have also typically covered natural catastrophe risks as part of insurance stress testing. More recent FSAPS have explicitly assessed transition risks (Norway, 2020) and physical risks (Philippines, 2021), and we intend to expand this in the coming year.

Staff's proposed approach. We plan a three-stage approach to this work. First, a climate financial risk diagnostic to decide the scope of the assessment and relevant climate physical and transition risks for any given country. Second, designing climate scenarios. And third, designing macrofinancial scenarios and using them to assess bank resilience in a similar way to standard FSAP type bank stress tests. Our approach will require adapting the conventional approach to stress testing along several dimensions:

- Our climate risk analysis will consider financial stability risks at both the conventional medium-term (3-5 year) horizon and the long-term (30-50 year) horizon, given the nature of climate risks. Many others at this stage are focusing only on long-term risks. Our additional medium-term focus reflects that financial markets and institutions could adjust early on to risks from potential long-term climate impacts.

- FSAPs will consider both physical and transition risks. Physical risks could be especially relevant for many of the IMF's smaller and more vulnerable members and will require close cooperation with climate scientists to analyze. The highly micro-sectoral and geospatial sources of climate-related financial stability risks present important data and modeling challenges. Also, the large uncertainties surrounding the carbon price path and associated spending of carbon tax proceeds present unique modeling challenges for assessing risks from transition.

- The immensity of the climate challenge calls for global cooperation. We will work closely with other bodies, including the UN, the World Bank, the Financial Stability Board, international standard setting bodies, and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

G. Collaboration with the World Bank

47. Cooperation with the World Bank on FSAPs is important, and new opportunities and challenges will arise, especially on emerging risks. The analysis of stability issues is the main focus of the Fund, while the Bank covers financial sector development issues, but there is, of course, considerable overlap between the areas. The interface of the stability assessments with the World Bank's developmental focus can generate important synergies. Therefore, IMF-led FSAP stability modules in EMDEs tend to involve one or two World Bank staff or experts, and World Bank-led FSAP development modules tend to include one or two IMF staff or experts focusing on Pillar 2 and 3 topics with stress testing as part of Pillar 1 being left with the Fund. In some cases, FSAPs with

advanced economies have included World Bank experts when relevant and feasible. Staff's analysis suggests that—controlling for factors such as financial sector size—joint FSAPs have been able to provide a broader scope for the overall engagement and assessment. Going forward, there are likely to be additional synergies arising from collaboration in the areas of the work on climate change and fintech where both financial stability and developmental issues are critical. The staffs of both organizations have an active operational dialogue on coordinating policy analysis and messages in these and other areas and supporting their implementation in FSAPs.

H. Proposals to Strengthen Scoping

48. Staff analysis and surveys of authorities suggest opportunities to strengthen the scoping of FSAPs (Table 1). Specifically, the risk-focused approach to scoping FSAs can make even greater use of flexibility within the three-pillar framework. Striking a balance between the FSAP's analysis of traditional and new risks within a given budget will require effective prioritization. This proposal is similar to the CSR's recommendation to make surveillance nimble and responsive to emerging priorities and to develop targeted advice tailored to country-specific circumstances. Staff will leverage the findings of recent detailed standards assessments to tailor the scope of the FSAP and increase its thematic focus. FSAPs should continue to use a risk-based approach to decide whether to conduct a detailed standards assessment or a more focused review.

Table 1. Aim I: Proposals to Strengthen Scoping

#	Proposal
I-1	Use the flexibility in the three-pillar framework to capture emerging risks and prioritize scope according to systemic importance.
I-2	If a positive comprehensive assessment under the latest standard is available, structure the financial stability assessments around one or two cross-cutting themes while preserving assessments across all the three pillars.
I-3	Continue to use the risk-focused approach to international standards, as per IMF (2017a).
I-4	Endorse the Key Attributes of Effective Resolution Regimes as the assessment benchmark for insurance resolution frameworks in FSAPs and stand-alone assessments and the Key Attributes Methodology for the Insurance Sector.

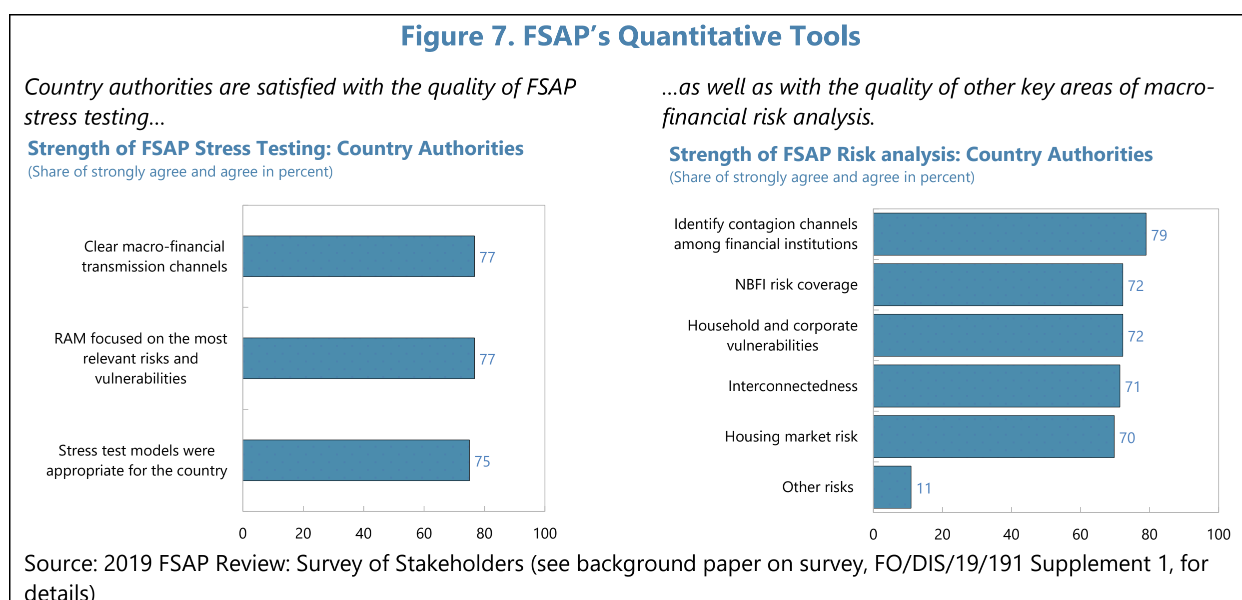
AIM II: QUANTITATIVE TOOLS

49. Macroprudential stress testing has become a key tool to gauge risks on a system-wide level and propose mitigating measures. Like the FSAP, its quantitative tools have been adapting. Initially, stress tests concentrated on the resilience of individual financial institutions. The GFC led to an emphasis on macroprudential stress tests, shifting the focus more clearly to the system as a whole and extending the framework to cover a greater range of threats. Therefore, this section (and the accompanying background paper) concentrate on the main elements of the FSAP's macroprudential stress testing: (i) the interaction among solvency, liquidity, and contagion risks in the banking sector, (ii) the assessment of the health of NBFIs, their interactions with banks and their impact on financial markets, (iii) the assessment of the health of nonfinancial sectors and their links to the banking sector, (iv) interconnections between financial and nonfinancial sectors,

(v) interactions between the financial sector and the real economy, and (vi) macroprudential policy analysis.

50. Since the 2014 FSAP Review, quantitative tools for risk analysis have adapted to evolving stability risks and vulnerabilities and have become more macroprudential. The 2014 FSAP Review suggested focusing more on systemic risks. In response, Fund staff have expanded the FSAP's quantitative tools to include models to study vulnerabilities in NBFIs, nonfinancial sectors (such as households and nonfinancial corporates), housing market risks, and interconnectedness not only among banks but also with NBFIs and the nonfinancial sectors (Adrian, Morsink, and Schumacher, 2020). Some FSAPs have started to analyze links between solvency, liquidity, and contagion risks. The Fund has also been making substantial efforts to account for the two-way feedback effects between the financial sector and the real economy. Moreover, Fund staff have developed a range of approaches, including growth-at-risk (GaR), structural vector autoregression (SVAR) models, dynamic stochastic general equilibrium (DSGE) models, and agent-based models (ABM) to model macrofinancial linkages. As the understanding of macroprudential policies deepened, FSAPs started to delve into the quantitative calibration of macroprudential tools. The authorities have expressed a high degree of satisfaction with the FSAP's analytical tools (Figure 7).

Figure 7. FSAP's Quantitative Tools



Source: 2019 FSAP Review: Survey of Stakeholders (see background paper on survey, FO/DIS/19/191 Supplement 1, for details)

51. Going forward, staff work will focus on further enhancing the macroprudential stress testing framework. The work—guided by staff's assessment of the priority areas and informed by the results of the FSAP Review's survey of stakeholders (Figure 6)—will concentrate on:

- ***Interaction between solvency, liquidity, and contagion risks.*** Staff are developing models that incorporate complex interactions between the risks to provide a better picture of systemic risk.

- ***Risks in nonbank financial sectors.*** To make NBFI risk analysis more macroprudential, staff plan to focus more on cross-sectoral interactions and impacts on markets.

- ***Risks in nonfinancial sectors.*** Staff are planning to develop models to analyze links between the health of nonfinancial sectors and the soundness of banks' balance sheets.

- ***Interconnectedness analysis.*** The scope of interconnectedness could be expanded to include cross-financial segments and cross-sectoral linkages more fully. This requires addressing data access challenges that still prevent some FSAPs from investigating micro-level, activity-based interconnectedness and systemic liquidity using financial market infrastructure data.

- ***Macrofinancial interactions.*** GaR and DSGE models have been used in FSAPs mainly to build the macro scenarios for stress testing, but they have not yet been used jointly with stress tests to measure feedback effects from financial distress to economic outcomes. The SVAR and ABM approaches have the potential to integrate the results of institution-by-institution stress tests back to macrofinancial developments.

- ***Macroprudential policy.*** Cyclical assessments and policy advice could rely more on the results of macroprudential stress tests, alongside early warning indicators, such as debt-at-risk. Stress test results could inform adequate buffer sizes and conduct an ex-ante impact assessment of possible future measures. Also, analytical tools using microdata could be considered more explicitly to calibrate borrower-based tools.

52. Enhanced quantitative tools will be complemented by improvements in tool efficiency through standardization and automation. This will reduce costs without sacrificing the quality or cutting down an integral component of risk analysis. A good example is the development of the GaR tool, which involved close collaboration with the Information Technology Department and public dissemination on a popular software development site. Staff are planning to standardize core risk analysis, for different data environments, supported by internal operational guidance notes and files/codes on a refreshed webpage dedicated to the topic. Staff are also working to develop a tool to efficiently estimate various satellite models for stress tests and check their performance—one of the most time consuming parts of building a stress testing framework. More broadly, shifting quantitative analysis away from excel-based tools to program codes could increase efficiency and accuracy. These efforts also help to ensure cross-country comparability.

53. More effective use of quantitative tools will require easing data constraints. Quantitative risk analysis in FSAPs faces two types of data constraints: availability and access. National authorities and international institutions have made substantial efforts to start collecting more data, following, for instance, the G20 Data Gap Initiatives. In some cases, technical assistance from the IMF Statistics Department has supported the authorities to achieve the targets. However, certain data are still not collected or not comprehensive, particularly those on emerging risks. In terms of access, virtually all national authorities now share their confidential supervisory data for bank stress tests. However, access to some data is still limited, including the Global Systemically Important Bank data collected by the Bank of International Settlement (BIS). Access and analysis using transaction and settlement data—namely activity-based data that encompasses all types of regulated and unregulated entities active in certain markets—is still rare, in part because of the technical challenge to handle such "Big (confidential) Data." On occasion, FSAP teams have

conducted joint analyses with national authorities who have access to data, working with codes and information sharing platforms that do not require the FSAP team to have direct access to data. Developing quantitative tools for the analysis of fintech and cyber risks depends largely on the availability of data.

54. Quantitative tools will also incorporate regulatory and accounting reforms. Such reforms require adjustments to bank stress test tools. For example, the Basel Committee on Banking Supervision (BCBS) introduced in 2017 additional requirements to Basel III that limit the application of an internal ratings-based (IRB) approach to calculate risk-weighted assets. The adoption of International Financial Reporting Standard 9 (IFRS 9) in many jurisdictions changed the ways loan-loss-provisions are calculated.

55. The analysis and the survey results provide some suggestions to strengthen the foundations of FSAP's quantitative analysis (Table 2):

Table 2. Aim II: Proposals to Strengthen Quantitative Toolkit

#	Proposal
II-1	Strengthen tools for macrofinancial feedback analysis and calibration of macroprudential policies, interconnectedness and contagion, and NBFIs.
II-2	Develop assessment methodologies and tools for fintech, cyber risk, and climate risk—data permitting.

AIM III: TRACTION

56. FSAP traction is strong and has improved further in recent years. Country authorities find that FSAPs add value through independent assessment, in-depth analysis, clear findings, and relevant policy recommendations. Country authorities judge that they implement most FSAP recommendations, and the implementation rate has significantly improved in the last five years. This gain appears to have been concurrent with improved perceptions of the clarity, candor, and prioritization of recommendations and FSAPs' contribution to the policy debate across agencies and legislators. In addition, country officials rated highly the quality of their interaction with FSAP teams and the appropriateness of the scope and focus of FSAP assessments. Moreover, the publication rate of FSSAs has improved, and public attention to FSAPs has increased.

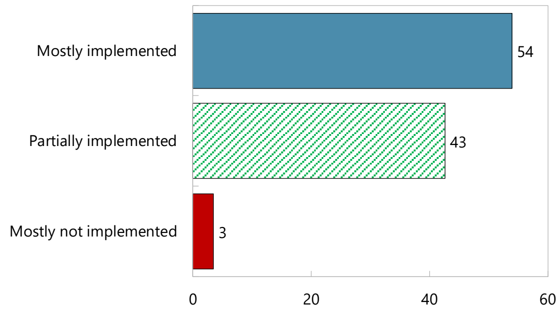
A. Traction with Authorities

57. Country authorities report high levels of satisfaction with FSAP recommendations (Figure 8). The most valued aspects of the FSAP are the independent assessment that it provides, its in-depth analysis, the clarity of the analysis, the detailed assessments of supervisory standards, and the policy relevance of the findings. About 90 percent of country authorities consider them clear, candid, well-prioritized, and well-sequenced, thereby helping to strengthen the institutional framework for financial stability in each participating jurisdiction.

Figure 8. FSAP Recommendations

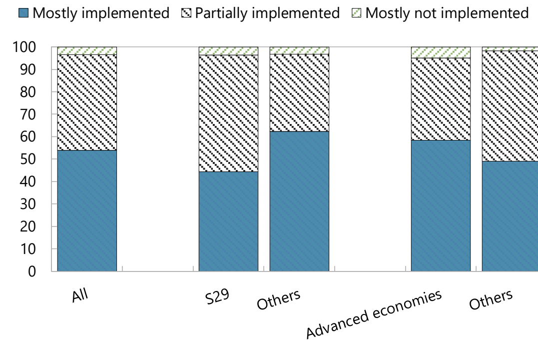
Country authorities consider that almost all recommendations are mostly or partially implemented.

Status of Recommendatons: Self-assessment by authorities
(Percent; share of responses)



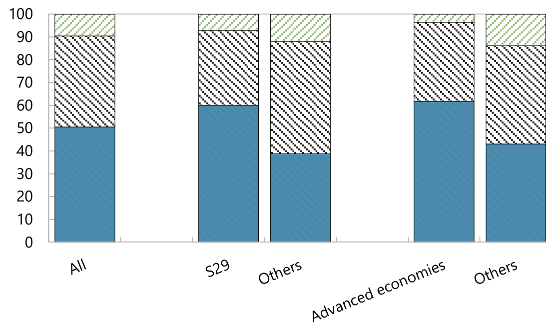
Jurisdictions with SIFS tend to implement slightly fewer FSAP recommendations than others.

Status of Recommendations: Country Authorities
(In percent of total)



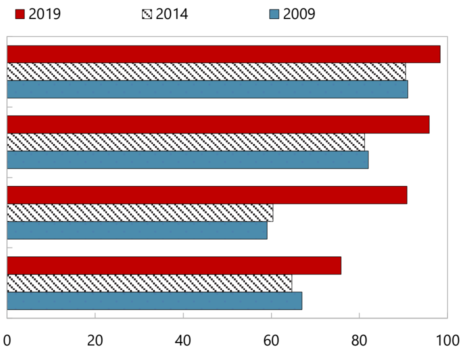
Subsequent FSAP teams reported slightly lower implementation rates among non-systemic jurisdictions…

Status of Recommendations: FSAP Teams
(In percent of total, based on subsequent FSAPs during 2014-18)



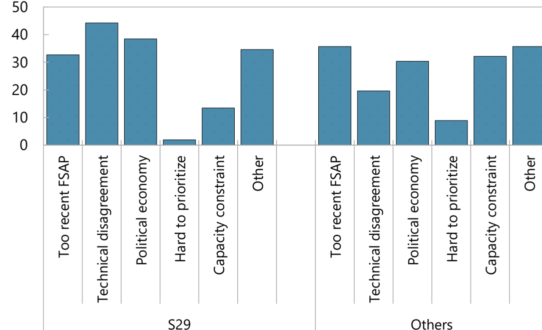
The authorities' satisfaction with FSAP recommendations has improved over time…

Country Authorities: Quality of Recommendations
(Approval rate: Strongly Agree + Agree)



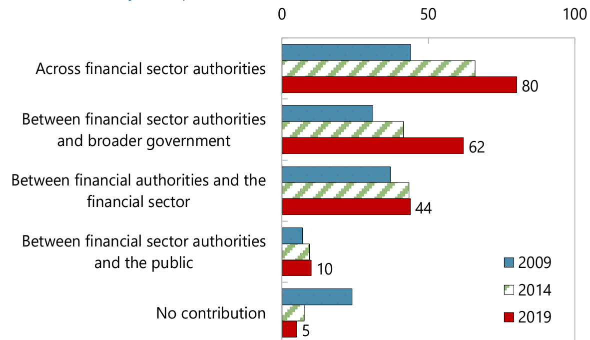
S29 jurisdictions considered technical disagreements to be the top reason, while others emphasized recent completion and capacity constraints.

Reasons for Not Implementing Recommendations: S29 vs Others
(Percent; share of responses)



The authorities' satisfaction with FSAP's contribution to policy debate has improved over time, especially by encouraging discussion among financial sector authorities.

FSAPs' Contribution to Policy Debate: Country Authorities
(The share of "yes" respondents in total)



Sources: 2019 FSAP Review survey and staff calculations.
Note: The "status of recommendations" charts are based on the year of the previous FSAP, which is why they end in 2013.

58. Stakeholders supported the scope and focus of FSAPs. The vast majority of respondents agreed or strongly agreed that FSAP assessment analyses were well structured, relevant, appropriate in both breadth and depth, and were effectively took account of country circumstances. A large majority viewed the resources devoted to the various components of FSAP assessments as appropriate, but 20–30 percent saw merit in increasing the resources on stress testing and assessments of financial sector policy frameworks and safety nets. And 40 percent saw merit in increased resources for other emerging issues. Some respondents, while finding the FSAP useful overall, expressed concerns about the burden for country officials (in terms of preparatory work and number of meetings) and encouraged efforts to streamline the work to the extent possible.

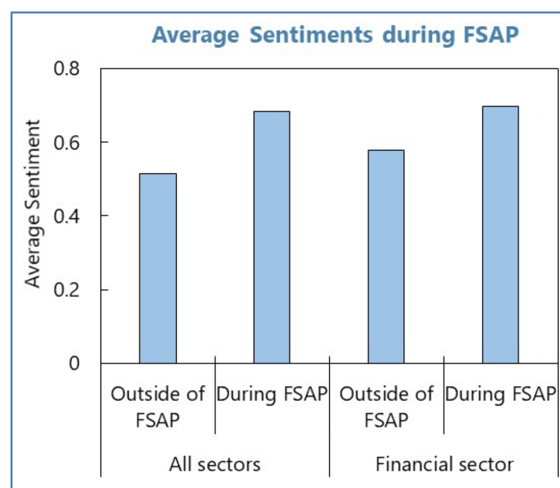
59. FSAP assessments appear to have made major contributions to the policy debate in the membership. Almost 95 percent of country respondents indicated that the FSAP recommendations had been partially or fully implemented. Article IV mission chiefs viewed roughly three-quarters of FSAP recommendations had been "partially" or "mostly implemented," with 10 percent responding that the recommendations were "mostly not implemented." Over 50 percent of respondents in 2019 reported that the recommendations were mostly implemented, significantly higher than the 30 percent rate reported in 2014. Factors that may have impeded a fuller implementation of FSAP recommendations include political economy constraints that are critical for legislative changes, technical disagreements with the recommendations, and capacity constraints. These latter factors suggest the possibility that traction could be enhanced by greater efforts by FSAP teams to explain the reasons why they make their recommendations and to actively engage in those cases where follow-up technical assistance may be helpful. Article IV teams could also engage with national authorities to ensure key follow-up technical assistance takes place.

60. These results are consistent with those from the CSR survey (Figure 9). In particular, the CSR found that among country authorities, 80 percent reported that IMF recommendations influenced national policy formulation or debate "to a great extent or to some extent," which was more than for other policy categories (fiscal, structural, monetary, exchange rate, and capital flows). The CSR's sentiment analysis of the authorities' views in Article IV staff reports using deep learning techniques also found that authorities tend to have a positive view on Article IV analysis and policy recommendations on financial sector issues, as well as broader policy areas, when countries undergo FSAPs.

61. A specific improvement to increase traction with country authorities would be for the FSSA to explicitly reflect the authorities' views. Including references to the authorities' views summarized by staff in a short section in the FSSA similar to the approach in Article IV staff reports could improve the authorities' ownership of the FSAP recommendations and clarify the factors that may impede implementation, including the specifics of technical disagreements with staff.

Figure 9. National Authorities' Views on Article IV Staff Reports

Authorities tend to have a positive view on Article IV analysis and policy recommendations on financial sector issues, as well as broader policy areas, in the year when an FSAP is concluded.



Source: 2021 CSR
Note: "Outside of FSAP" indicates Article IV staff report for the years without FSAP, and "during FSAP" indicates staff report in the year concluding FSAP.

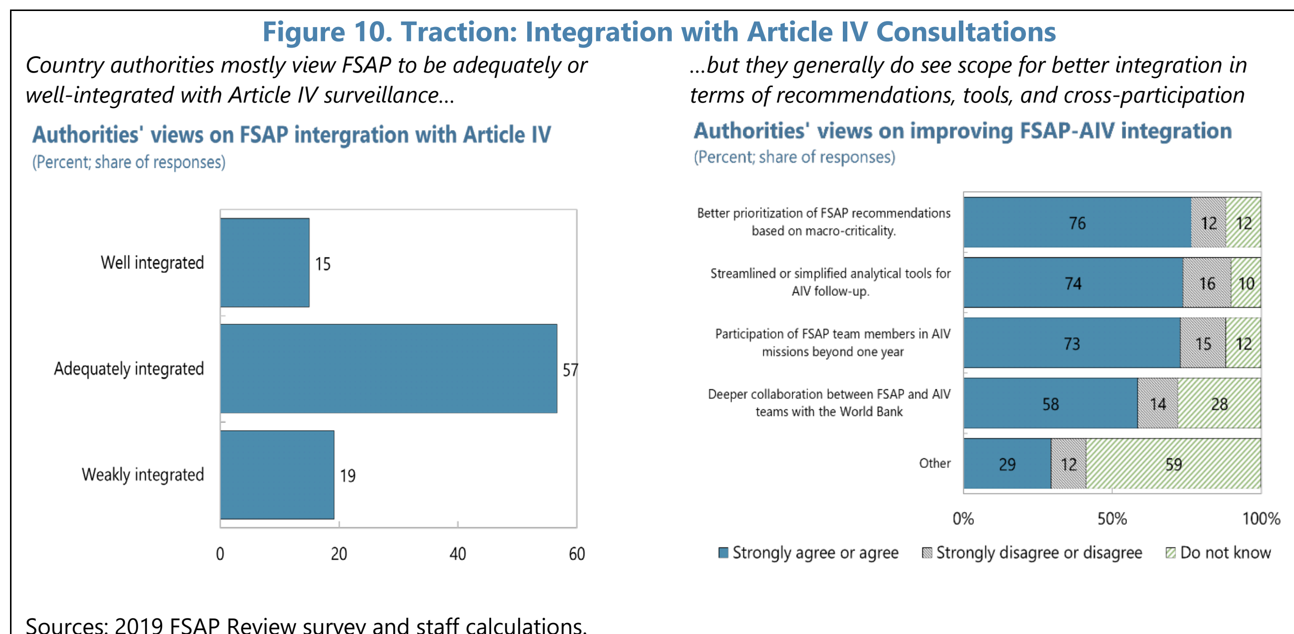
B. Integration Between FSAP and Article IV Surveillance

62. The survey conducted for this review suggested differing degrees of satisfaction regarding the depth of FSAP/Article IV integration (Figure 10). Two-thirds of the respondents stated that the FSAP was "well" integrated, and the balance felt that the FSAP was "adequately" integrated. Over 90 percent of Article IV mission chiefs and SPR respondents consider integration to be adequate, followed by national authorities (about 70 percent) and FSAP teams. This reflected favorable views about the coordination between the Article IV and FSAP teams, including with regard to sharing of information and coordination of policy positions and the value and clarity of the FSAPs' in-depth assessment of financial sector policies and risks. However, only about one-half of ED respondents see integration as adequate.

63. The Independent Evaluation Office (IEO) report and the CSR find that integration has been strong but point to opportunities for further improvement. Caprio (2019) and the CSR note that the number of references to FSAP analysis and recommendations in Article IV staff report increases sizably in the year of the FSAP but then falls off sharply the next year, partly because risk analysis can become dated fairly quickly (see background paper on traction). Both reports find that better integration with FSAP can strengthen the quality of financial sector analysis in Article IV consultations. Caprio (2019) notes that FSAPs naturally provide more comprehensive and in-depth financial sector analysis than in Article IV surveillance, but that the low frequency of FSAPs makes them less well-suited to identifying fast-changing risks. There is thus an opportunity for Article IV consultations to take a closer look at higher-frequency risks. The CSR notes that systemic risk analysis in Article IV staff reports tends to be limited, focusing on a discussion of Financial Soundness Indicators (FSIs) in one-third of advanced economies and two-thirds of emerging market

and developing economies Article IV staff reports, respectively.[18] The CSR also finds that the depth of systemic risk analysis is strongly correlated with the availability of a recent FSAP.

Figure 10. Traction: Integration with Article IV Consultations



Sources: 2019 FSAP Review survey and staff calculations.

64. Overall, a number of options arise to better leverage the FSAP to strengthen financial surveillance in Article IV consultations. Some actions are already in progress.

- ***Develop simplified analytical tools***: MCM is making significant progress in developing and disseminating (including by training desk economists) simplified analytical tools that use publicly available data to support financial stability risk analysis by Article IV teams such as the Global Bank Stress Test (GST) and the Universal Bank Stress Test (UST) tool under development, a simplified version of the GST, that staff are seeking to extend to a larger sample of emerging and developing economies.[19] Given the heightened risks from nonfinancial corporations (NFCs) as a result of COVID, a stress testing tool for NFCs that emphasizes the link to bank stress tests is also under development.

- ***Increase cross-mission participation***: FSAP mission chiefs already join the Article IV consultation mission in the year of the FSAP. Participation by Article IV mission chiefs in the FSAP concluding mission could further support integration by strengthening Article IV mission chiefs' engagement with the full range of FSAP findings and recommendations.

[18] While FSIs are useful, they typically focus on the banking system as a whole and do not capture vulnerabilities in the nonbank financial sector and nonfinancial corporations and are not a substitute for stress testing and other risk analysis tools.

[19] The GST is a tool to conduct bank solvency stress tests using publicly available individual bank financial statement data for about 30 jurisdictions (see October 2020 GFSR, Chapter 4 for details). The UST is seeking to expand the sample countries to over 100, using jurisdiction-aggregated data from the IMF's Financial Soundness Indicator database.

- ***New process for early engagement in the review of Article IV policy note***: In collaboration with SPR, the FSAP team and MCM could be more closely involved in the early stages of the Article IV policy note review process. The details are discussed in the CSR paper.

65. To support Board engagement with the FSSA, staff will be ready to offer a technical seminar to Directors on the FSSA ahead of the joint Article IV-FSSA Board discussion. Based on the stakeholder surveys and previous engagements, there is support for having opportunities for the Board to be informed in greater depth of technical findings of FSAPs.

C. Integration with the GFSR and TA

66. Analytical approaches are being shared between the FSAP and the GFSR. While the FSAP primarily informs Article IV consultations, and the GFSR is focused on multilateral surveillance, there is frequent cross-fertilization between the two products on key policy and analytical topics and tools. A good example is the 2019 France FSAP that followed up on the issue of banks' U.S. dollar funding in the April 2019 GFSR. In turn, the corporate vulnerability analysis of the 2019 France FSAP was followed up in the 2019 October GFSR. Another example is that FSAP assessments and the GFSR have begun using GaR, which approximate financial stability risk in terms of the downside risk to growth. The 2019 Canada FSAP used GaR analysis as a tool to frame the analysis of macrofinancial vulnerabilities.

67. The FSAP plays an important role in framing subsequent TA. There are many examples of FSAPs leading to useful TA engagements (e.g., 2017 China, 2014 Moldova, and 2016 Morocco, among others). An FSAP provides a comprehensive approach to financial sector recommendations, including a recommended sequencing of policy reforms. This approach is especially useful in countries with Fund-supported programs where TA is often tied to structural benchmarks.

D. Traction with the Public

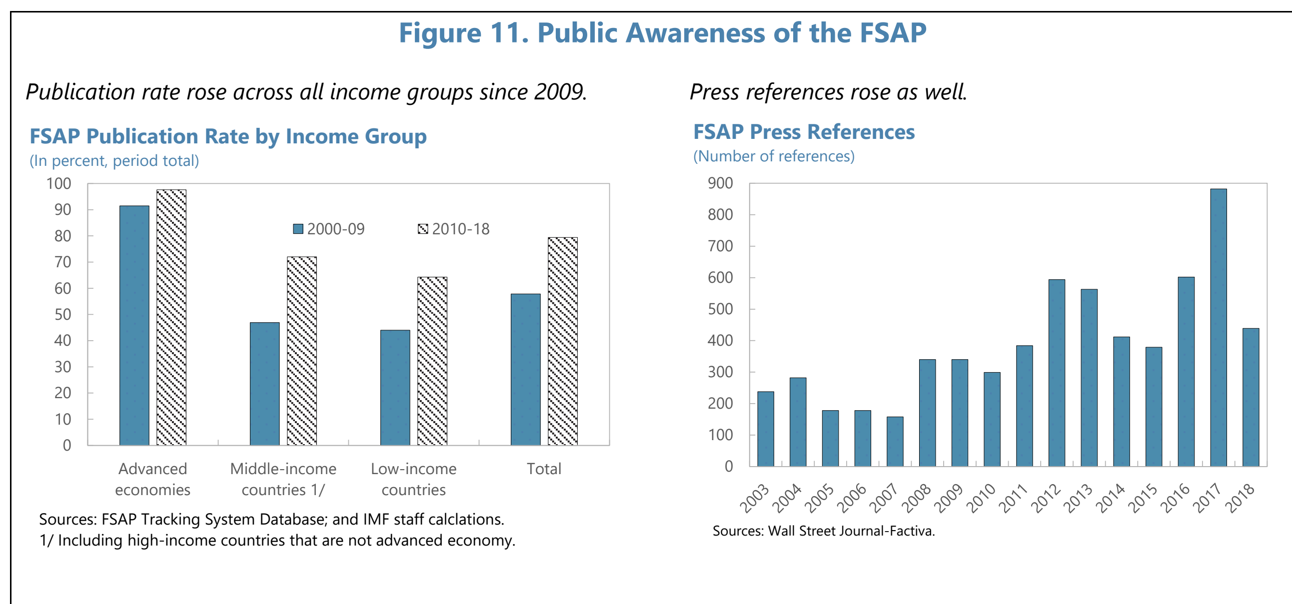
68. Publication rates of FSAP documents have increased in the past decade, especially for emerging markets and developing countries (Figure 11). This has been accompanied by an increase in press references.

69. FSSAs are about as readable as financial stability reports (FSRs) produced by national authorities, but more outreach efforts are needed. The average technical complexities of FSSAs and FSRs are similar, as measured by the Flesch-Kincaid Grade Level.[20] In an effort to modernize FSAP outputs and make them more accessible, staff introduced in 2019 new word limits on FSAP documents (aligned with Article IV staff reports) and a "Key Issues" box on the cover of FSSAs to better highlight the FSAP's findings and policy recommendations. In cases where the FSSA is

[20] The Flesch–Kincaid Grade Level is derived from numbers of syllables, words, and sentences and interpreted as the number of years of education generally required to understand a text. It has been used in education and other fields. Across FSSAs, the Flesch–Kincaid Grade Level varies from 14 to 18 (standard deviation: 0.5). The average Flesch–Kincaid Grade Level for FSSAs declined from an average of 16.1 before 2015 to an average of 15.7 since 2015. The average Flesch–Kincaid Grade Level across central banks' FSRs is 16, as is the average across GFSRs.

published, staff aim to produce shorter, easier-to-read outputs—such as country focus articles and blog posts—to disseminate FSAP messages to broader audiences.

Figure 11. Public Awareness of the FSAP



E. Proposals to Increase Traction

70. The analysis and survey results lead to proposals increase traction (Table 3).

Table 3. Aim III: Proposals to Increase Traction

#	Proposal
III-1	The FSSA to include a short section summarizing the authorities' views.
III-2	Article IV mission chief participation in the FSAP concluding mission.
III-3	Develop stability risk analysis tools for use in bilateral surveillance.
III-4	Early engagement in the preparation of Article IV consultations (see CSR Main Paper ¶17).

AIM IV: COUNTRY PARTICIPATION

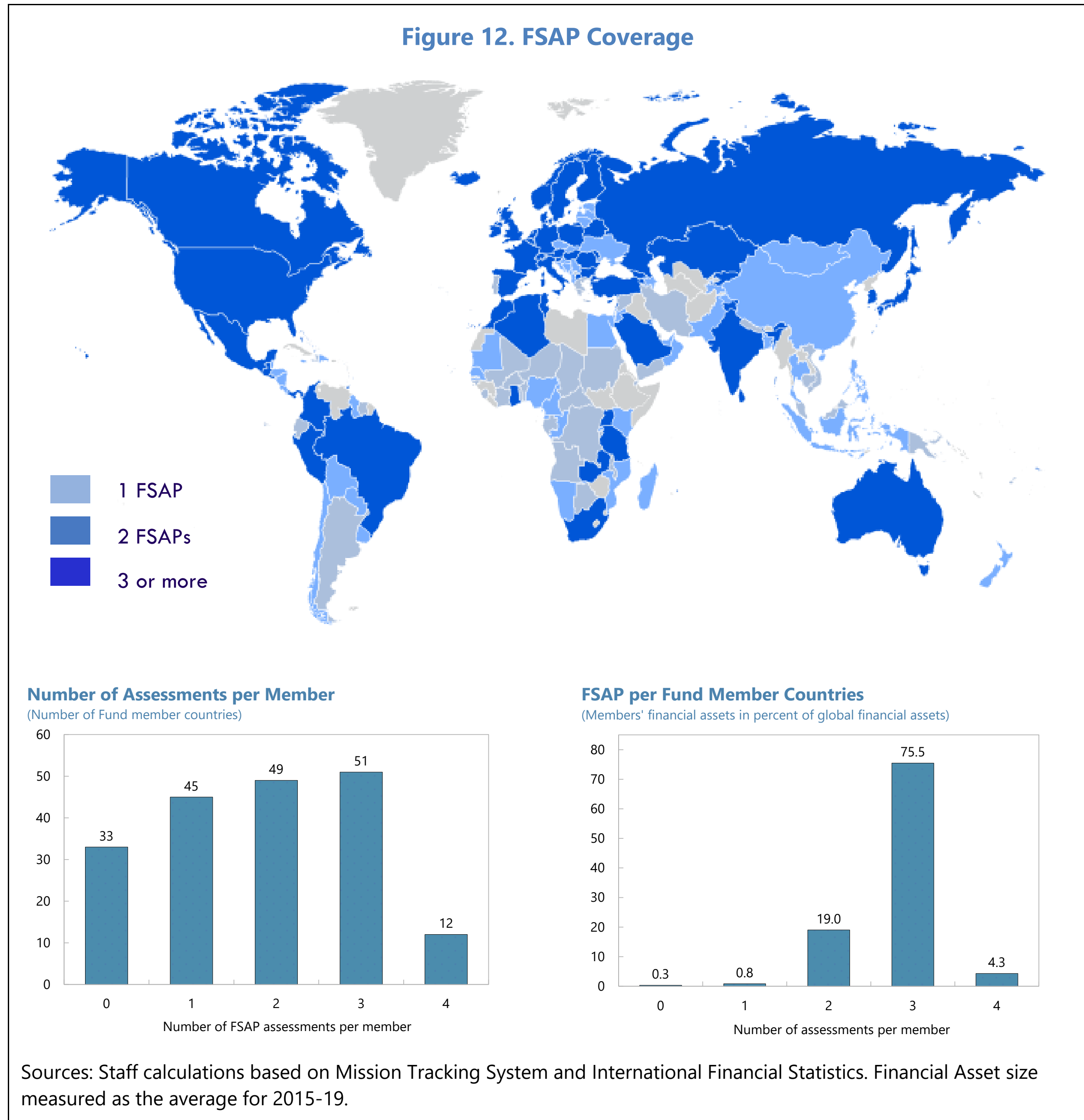
A. Overall Considerations

71. The FSAP has broad global coverage, focusing on jurisdictions that are systemic for global financial stability. Altogether, Fund staff had completed 373 assessments by end-2020 (excluding World Bank-only FSAPs). Since the 2014 FSAP Review, there have been 71 completed assessments, including 39 (55 percent) voluntary assessments. A total of 157 member countries, accounting for 99.7 percent of global financial assets, have been assessed at least once (Figure 12).[21] Of these, 112 member countries accounting for 98.8 percent of the world's financial system have

[21] One hundred and fifty-seven "Fund member countries" exclude jurisdictions such as Hong Kong SAR and overseas territories (e.g., British Virgin Island) but include countries covered only by the World Bank and regional FSAPs.

had at least two assessments. The S29 jurisdictions with SIFS account for 95.3 percent of global financial assets.

Figure 12. FSAP Coverage



Sources: Staff calculations based on Mission Tracking System and International Financial Statistics. Financial Asset size measured as the average for 2015-19.

B. Mandatory Assessments

Methodology

72. In 2010, the IMF Executive Board made FSAs under the FSAP a mandatory part of surveillance under Article IV for jurisdictions with SIFS.[22] The Board adopted an indicator-based methodology based on *size* and *interconnectedness* to evaluate the systemic importance of financial sectors. The methodology created two indices of financial sector size and interconnectedness and combined these indices into a final composite index of systemic importance. Using this composite index, the methodology identified 25 SIFS, which laid the foundation for the first round of mandatory assessments.

73. In 2013, the Board adopted a network-based approach to identify SIFS, which resulted in an increase of the number of SIFS to 29. The first round of mandatory assessments, the GFC, and the sovereign debt crisis in Europe had highlighted the importance of interconnectedness through which shocks could lead to significant spillovers to other jurisdictions.[23] Based on these insights, the Board adopted a network-based approach to identify SIFS by applying the Clique Percolation Method (CPM) to data on cross-border financial interlinkages of bank claims, equity holdings, debt holdings, and equity price correlation.[24] As a result, four countries—Denmark, Norway, Poland, and Finland—were added to the list of jurisdictions with SIFS bringing the total number to 29 (the S29).

74. Staff's in-depth analytical work suggests that the 2013 methodology remains appropriate to identify jurisdictions with SIFS (see IMF, 2019). The methodology incorporates the main lessons learned from past crises and captures cross-country interconnectedness through which shocks could lead to significant spillovers. More recent approaches to measuring systemic risk provide useful insights but have their drawbacks when it comes to measuring the systemic importance of financial sectors.[25] Besides, applying the 2013 approach to defining the list of jurisdictions with SIFS to the latest available data (end-2019) yields similar results to the current list, and changes seem reasonable. Given that the architecture of the global financial system and its interconnections have evolved gradually, it is reassuring to see the 2013 approach results in similar lists of jurisdictions over time.

---

[22] See IMF, (2010), Integrating Stability Assessments Under the Financial Sector Assessment program into Article IV Surveillance, Decision No. 14736-(10/92).

[23] This concept corresponds to "loss-given-default" in credit risk management literature, distinct from the "probability of default"—the likelihood that jurisdiction could face significant financial sector distress.

[24] Exposure data sources are the BIS cross-border banking statistics and Coordinated Portfolio Investment Survey.

[25] Staff examined the robustness of the list with respect to the identification methodology. It employed an indicator-based approach aligned with the methodology that the FSB uses to identify Global Systemically Important Banks. The indicators reflected the size and interconnectedness of financial systems, covering both banks and nonbanks. Staff analysis provided confidence that the list of jurisdictions for mandatory financial stability assessments is robust.

75. As detailed in Appendix V, staff propose to make two minor adjustments to the 2013 methodology to enhance its robustness. The first is to use the latest five-year average of the data underlying the analysis, as opposed to the latest available year, to smooth out the volatility in annual data. The second is to drop the derivatives exposures to weight input data mainly owing to the bias that using "derivative weights" introduces by skewing selection to financial centers at the expense of EMDEs.[26]

76. Staff consider that the 2013 methodology's focus on structural risk instead of cyclical risk remains broadly appropriate. The focus on size and interconnectedness emphasizes structural risk or vulnerabilities—the potential for cross-border spillover effects if a jurisdiction were to experience a shock. It abstracts from cyclical risk—the likelihood of the jurisdiction experiencing a shock, which changes depending on the financial cycle. Staff's view is that a cyclical risk-based approach would not be appropriate for three main reasons: (i) the lead time necessary for properly scoping, performing, and discussing an FSAP assessment; (ii) difficulties in managing and communicating frequent changes in the list of mandatory assessments; and (iii) publicly identifying a country as having "high cyclical risk" could backfire by sending alarming signals to financial markets.

Proposed Update to the Methodology to Identify Jurisdictions for Mandatory FSAs

77. For identifying SIFS, this Review follows the established principles of relevance, transparency, and even-handedness (Decision No. 14736-(10/92), IMF, 2010a and 2010b). The selection criteria combine *risk measurement* (size weighted interconnectedness using the CPM) with *risk tolerance* (the thresholds in CPM to drop low-volume linkages). The risk tolerance determines the number of jurisdictions and the frequencies of assessments. For consistency, this Review uses the latest data and the updated methodology to establish a *refreshed* list of jurisdictions that maintains the number of SIFS at about 30. It then explores issues such as (i) the effect of lower network thresholds on the number of jurisdictions subject to mandatory assessments and (ii) the scope for expanding the mandatory assessment framework by having the additional jurisdictions with a different assessment frequency.

78. This Review proposes to further strengthen the risk-based approach to surveillance by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency (see Table 4 and Proposed Decision 2). The refreshed list, which is established using the existing risk tolerance, includes 32 jurisdictions subject to five-year assessment frequency. The corresponding thresholds are 1.75 percent for the bank claims network, 1.50 percent for the debt securities claims and equity claims networks, and 3.00 percent for the return correlation network. It newly includes Greece, Indonesia, Portugal, and Saudi Arabia while Poland drops off. In addition, staff propose to establish a second, lower risk tolerance level with corresponding thresholds of 0.85 percent for the bank claims network, 0.60 percent for the debt securities claims and equity claims networks, and 2.10 percent for the return correlation network. Those

[26] Derivatives data from the BIS are recorded on an "ultimate risk basis," which means that a derivatives contract booked in the host jurisdiction via a subsidiary will be recorded under the home jurisdiction. Therefore, staff propose to weight bilateral exposures by only PPP-GDP data (similar in this aspect to the 2010 methodology).

15 jurisdictions, which fall between the two tolerance levels under this methodology, would be subject to mandatory FSAs every ten years. Overall, 47 jurisdictions, including more EMDEs, would be subject to mandatory FSAs. Reducing overall risk tolerance would ensure that mandatory FSAs cover jurisdictions with lower size-weighted interconnectedness that could affect many other jurisdictions. The lower size-weighted interconnectedness of the newly added jurisdictions (relative to the new proposed S-32) motivates the lower frequency of assessments.

Table 4. Jurisdictions with Mandatory Assessments—S47

Five-year cycle (32)		Ten-year cycle (15)
Australia	Japan	**Argentina**
Austria	Korea	**Chile**
Belgium	Luxembourg	**Colombia**
Brazil	Mexico	**Czech Republic**
Canada	Netherlands	**Hungary**
China	Norway	**Malaysia**
Denmark	**Portugal**	**New Zealand**
Finland	Russia	**Peru**
France	**Saudi Arabia**	**Philippines**
Germany	Singapore	Poland
Greece	Spain	**Romania**
Hong Kong SAR	Sweden	**Slovakia**
India	Switzerland	**South Africa**
Indonesia	Turkey	**Thailand**
Ireland	United Kingdom	**United Arab Emirates**
Italy	United States	

Note: Bolded names = new addition compared to current S29. Green names = jurisdictions that have already been participating in FSAPs every five years due to their G20 commitment. Orange names = jurisdictions that have not participated in FSAP for more than ten years. Poland's assessment frequency is reduced from five years to ten years.
Source: Staff calculations.

79. Staff consider the above proposal can make mandatory FSAs even more risk-based. Jurisdictions with relatively more systemically important financial sectors would participate in FSAs more frequently. This approach goes in the direction recommended in the evaluation of financial surveillance by the IMF's IEO (IEO, 2019 and Caprio, 2019) by making the frequency of assessments more closely linked to the systemic importance of the relevant financial sectors. This approach would also be consistent with making overall Fund surveillance more risk-based (IMF 2018b). The mandatory frequencies are minimums and allow for flexibility to undertake assessments earlier if warranted.[27] For instance, G20 members that have committed to participate in FSAP every five years but that are not on the S29 list (Indonesia, Saudi Arabia, and South Africa) have been participating in

[27] In deciding whether an earlier assessment is warranted, the Fund would take into account, inter alia, a jurisdiction's requests and availability of resources. Such requests would be prioritized according to the criteria for voluntary assessments (Figure 13).

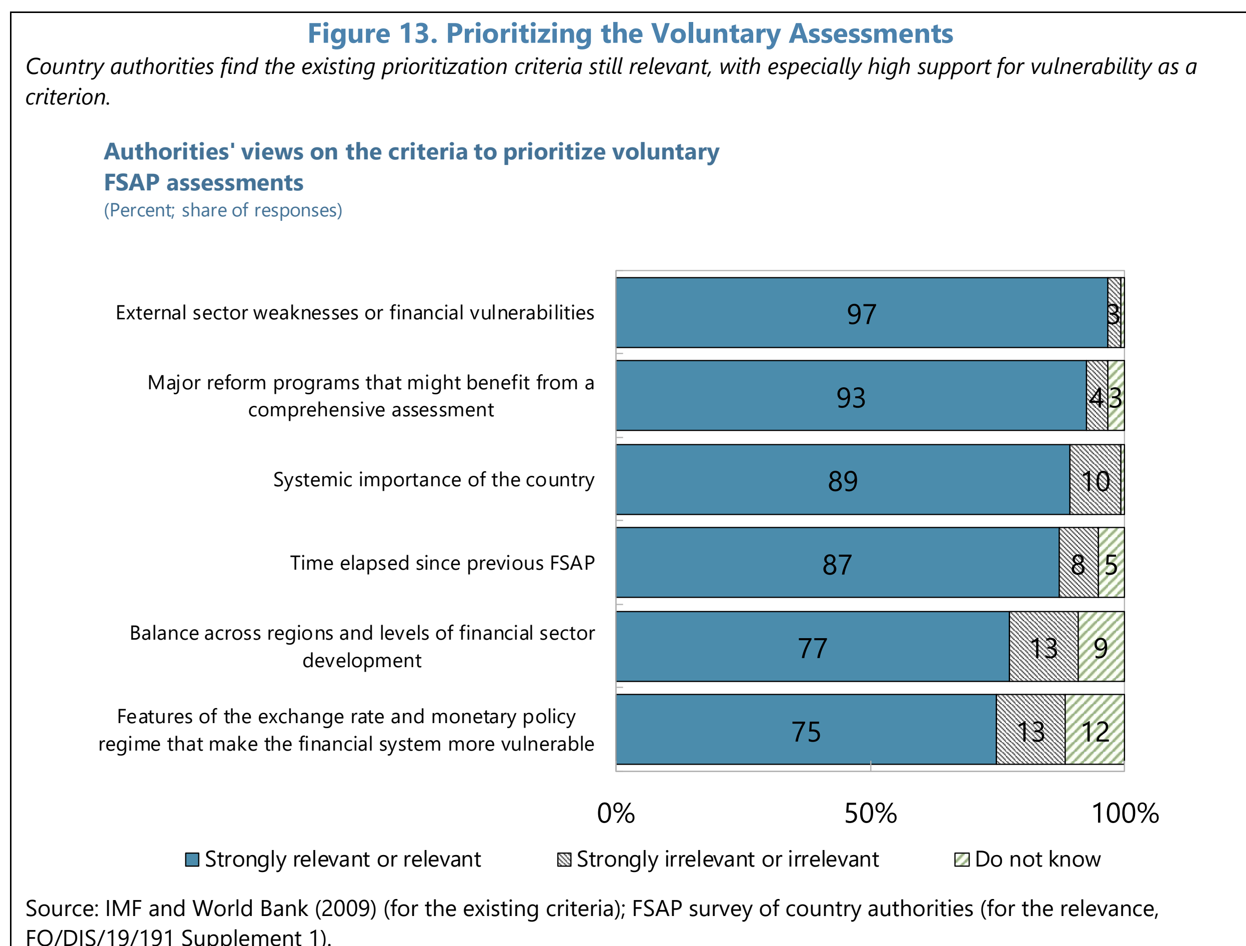
the program voluntarily every five years. This flexibility would help better reflect authorities' concerns and address emerging risks earlier when relevant. The five- and ten-year frequencies are also in line with authorities' views about the ideal FSAP frequencies: overall, 47 percent of the survey respondents prefer a five- and ten-year frequency, followed by the 41 percent support for maintaining the 5-year cycle (more among S29 members).

C. Voluntary Assessments

80. During 2014–19, demand for and supply of voluntary assessments were roughly in balance. This is reflected, for example, in the time between the receipt of a formal FSAP request and the start of the scoping work, which was about 12 months on average, partly because of the need to assemble a team and align the FSAP schedule with that of the Article IV consultation. The introduction of the FSSR—a donor-funded technical assistance tool for low and lower-middle-income economies—in 2017 has helped in achieving this balance. Of the 38 countries that have not volunteered for an FSAP, 26 would qualify for an FSSR.

Figure 13. Prioritizing the Voluntary Assessments

Country authorities find the existing prioritization criteria still relevant, with especially high support for vulnerability as a criterion.



Source: IMF and World Bank (2009) (for the existing criteria); FSAP survey of country authorities (for the relevance, FO/DIS/19/191 Supplement 1).

81. The criteria for prioritizing voluntary assessments are still broadly applicable, although a minor refinement is warranted. Authorities consider that the existing criteria approved by the

Executive Boards of the IMF and World Bank are still relevant (Figure 13). Nonetheless, a minor refinement to the criterion on systemic importance could be considered. Specifically, the criterion could be rephrased in terms of the systemic importance of the *financial sector* (instead of the country). The indicators-based approach would be used to measure this criterion more rigorously.

D. Supra-National and Regional Assessments

82. This Review proposes clarifying the participation of supra-national authorities[28] in FSAs under the FSAP:

- ***Voluntary FSAPs***. Some countries (typically, members of currency unions) have delegated responsibility for aspects of financial sector oversight to supra-national authorities. On this basis, voluntary assessments have been conducted with supra-national authorities, such as those for the Central African Economic and Monetary Community, Eastern Caribbean Currency Union, the Euro Area, and the West African Economic and Monetary Union. These supra-national assessments have led to efficiencies. In the case of the Eastern Caribbean Currency Union, for example, the assessment was done only at the supra-national level. In other cases, such as the Euro Area, individual member country assessments leveraged the supra-national assessment and focused on country-specific issues and policies not delegated to the supra-national level.
- ***FSAs Necessary for Surveillance***. Where financial sector policies have been delegated to a supra-national authority by a member that has been designated by the Fund to have a SIFS, this Review proposes to clarify that an FSA at the supra-national level focusing on the delegated policies will be conducted (Box 3). This arrangement is reflected in Proposed Decision 2 and parallels the arrangements for surveillance over members of currency unions, where discussions with union-level institutions in charge of common policies are held separately and considered an integral part of the Article IV consultation with each member.[29] At this point, an assessment at a supra-national level would only apply to the Euro Area, given that several Euro Area members have SIFS, and that the members have delegated authority for bank supervision and resolution to the Single Supervisory Mechanism and the Single Resolution Mechanism, respectively. Given that Euro Area member states retain considerable authority with supervising smaller banks and NBFIs and markets, staff propose that assessments with suitable modalities continue with individual euro area member states. It is expected that individual Euro Area member country assessments will be scoped in such a way that they leverage on—and do not duplicate—the Euro Area assessment.

[28] For purposes of this paper, supra-national authorities refer to an institution (institutions) to which a Fund member (members) have delegated its financial sector policies.

[29] See *Modalities for Surveillance Over Euro-Area Policies in Context of Article IV Consultations with Member Countries,* Decision No. 12899-(02/119), adopted December 4, 2002, *Modalities for Surveillance Over Central African Economic and Monetary Union Policies in Context of Article IV Consultations with Member Countries,* Decision No. 13654-(06/1), adopted January 6, 2006, *Modalities for Surveillance in Eastern Caribbean Currency Union Policies in Context of Article IV Consultations with Member Countries,* Decision No. 13655-(06/1), adopted January 6, 2006, *Modalities for Surveillance Over West African Economic and Monetary Union Policies in Context of Article IV Consultations with Member Countries,* Decision No. 13656-(06/1), adopted January 6, 2006, all decisions as amended.

83. For regions with strong financial linkages but without supra-national authorities, regional exercises on thematic topics will be considered. For example, in the past, in the Nordic countries, staff have made efforts to cluster FSAPs over two years and closely coordinate approaches across FSAPs, and we expect to continue this approach. A formal "regional FSAP" for a region without common supra-national authorities would be difficult, given the absence of a clear counterpart to engage with the mission and follow up on recommendations. Instead, this Review proposes conducting a regional exercise on a thematic topic, subject to resource constraints.

Box 3. Participation of Supra-National Authorities in FSAs

The mandatory FSAs do not create new obligations. In 2010, mandatory FSAs were made part of bilateral surveillance for members with SIFS. Subsequent amendments made FSAs a tool for multilateral surveillance as well, consistent with the Integrated Surveillance Decision. The purpose of bilateral surveillance is for the Fund to assess the compliance of each member with the obligations of Article IV, Section 1. Since the conduct of FSAs is directly relevant to the Fund's assessment of a member's compliance with its existing obligations under Article IV, incorporating these assessments into surveillance does not create new legal obligations for members. It is an application of a member's existing obligation to consult with the Fund regarding the performance of its obligations under Article IV.

Member countries that have delegated policy responsibilities to supra-national authorities remain responsible for all obligations in the Articles of Agreement, including those under Article IV.[1] Only countries are members of the Fund, and supra-national institutions have no obligations under the Fund's Articles to discuss their policies with the Fund or to participate in a mandatory FSA. At the same time, effective Fund surveillance over those members requires discussions with supra-national authorities on the delegated policies central to Fund surveillance. Members with delegated policies must ensure that the Fund can carry out its mandate under the Articles of Agreement, and an Article IV consultation with a member cannot be completed without the Fund having had an opportunity to assess core policies within its mandate. Therefore, where such policies have been delegated to a supra-national authority, discussions with that supra-national authority will need to take place as part of the Article IV consultation with the individual currency-union members.

This review proposes a framework for expected periodic FSA with regional supra-national authorities. Such discussions will inform individual members' FSAs and, where relevant, will be integrated into the annual discussions with the currency union on common policies in the context of Article IV consultations.

The periodic FSA with supra-national authorities will be conducted if at least one member with SIFS has delegated financial sector policies to a supra-national authority. The expected frequency of the regional FSA would correspond to the frequency established for the member with SIFS (if there are several such members subject to different FSA frequencies, then the highest frequency is applied to the regional FSA). Regards scoping, it is expected that individual member country FSAs will be scoped in such a way that they leverage on—and do not duplicate—the regional FSA.

1/ See, e.g., *Surveillance Over the Monetary and Exchange Rate Policies of the Members of the Euro Area*, SM/98/257, *Surveillance over Euro Area Policies*, SM/02/359.

E. Proposals on Participation

84. The analysis and the feedback from the survey lead to proposals on participation in the program (Table 5):

Table 5. Aim IV: Proposals on Participation

#	Proposal
IV-1	Adopt methodological improvements in the identification of SIFS (notably, using averages over a period of time and dropping derivatives weights).
IV-2	Strengthen the risk-based approach to surveillance by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency.
IV-3	Use the flexibility within the mandatory framework to conduct assessments before the mandatory deadline when warranted.
IV-4	Increase the precision of the criteria for voluntary assessments as proposed in ¶81.
IV-5	Where members subject to mandatory assessments delegate financial sector policies to a supra-national entity, there will be an assessment at the supra-national level focused on these policies. Assessments with suitable modalities should continue for the members subject to mandatory assessments.
IV-6	Conduct regional exercises on thematic topics subject to resource constraints.

AIM V: RESOURCES

A. Analysis

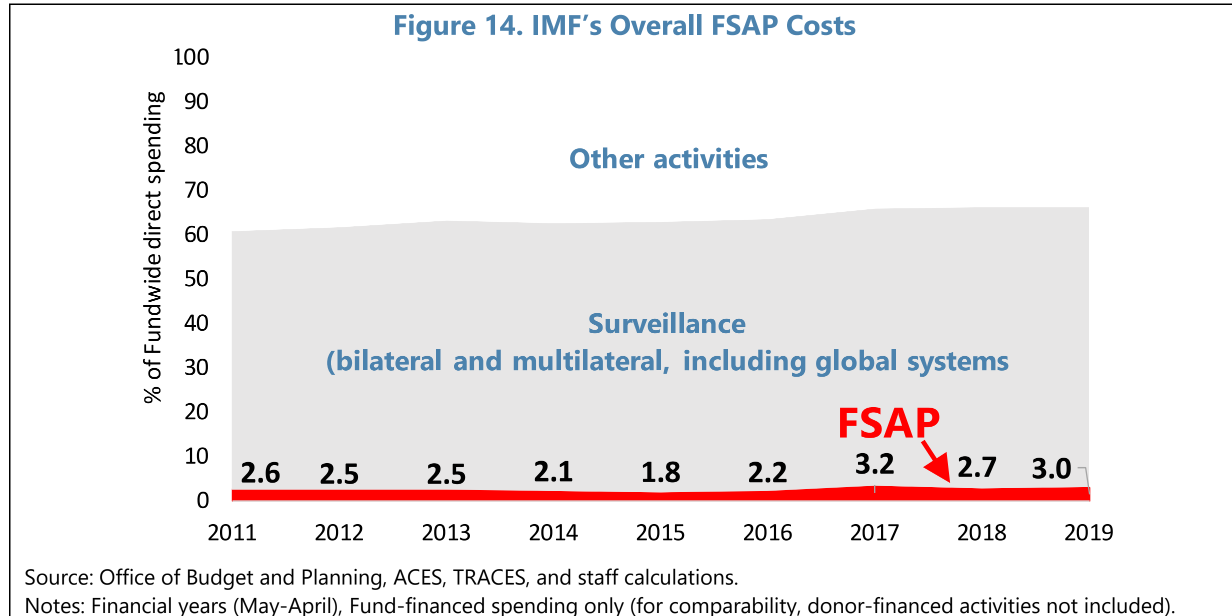
85. Costs of FSAs have been broadly stable over time, reflecting the risk-based prioritization of topics under the three-pillar framework. Fund-wide direct spending on FSAs under the FSAP has been about 2½–3 percent of total Fund-wide direct spending (Figure 14). As pointed out by the IEO (2019), the budgetary envelope for financial surveillance has increased somewhat since the 2012 Financial Surveillance Strategy was launched. Still, the budgetary envelope for both financial surveillance and FSAPs is largely around the levels of the mid-2000s before the GFC.

86. Costs vary widely across individual assessments, reflecting the size and complexity of different financial sectors (Figure 15). The size of the financial system explains most of the cross-country variation (Figure 16). Complexity—of the financial system and the policy framework—is another significant contributing factor. For example, FSAPs in jurisdictions with multiple supervisory agencies are costlier than those in jurisdictions with single supervisory agencies. Beyond size and complexity, some of the variations in costs can be attributed to the number of formal, graded standard assessments (DARs),[30] FSAP vintage (follow-up FSAPs being less expensive than first-round FSAPs), World Bank participation (which is associated with relatively lower IMF costs), language

[30] The IMF and World Bank have recognized international financial sector standards in the areas of banking supervision, securities regulation, insurance supervision, deposit insurance, financial market infrastructures, and resolution regimes for banks. On average, recent FSAPs have contained about one full graded assessment (Figure 2). In addition, FSAPs occasionally assess other standards concerned with market integrity, such as corporate governance, accounting, auditing, and insolvency and creditor rights, led by the World Bank.

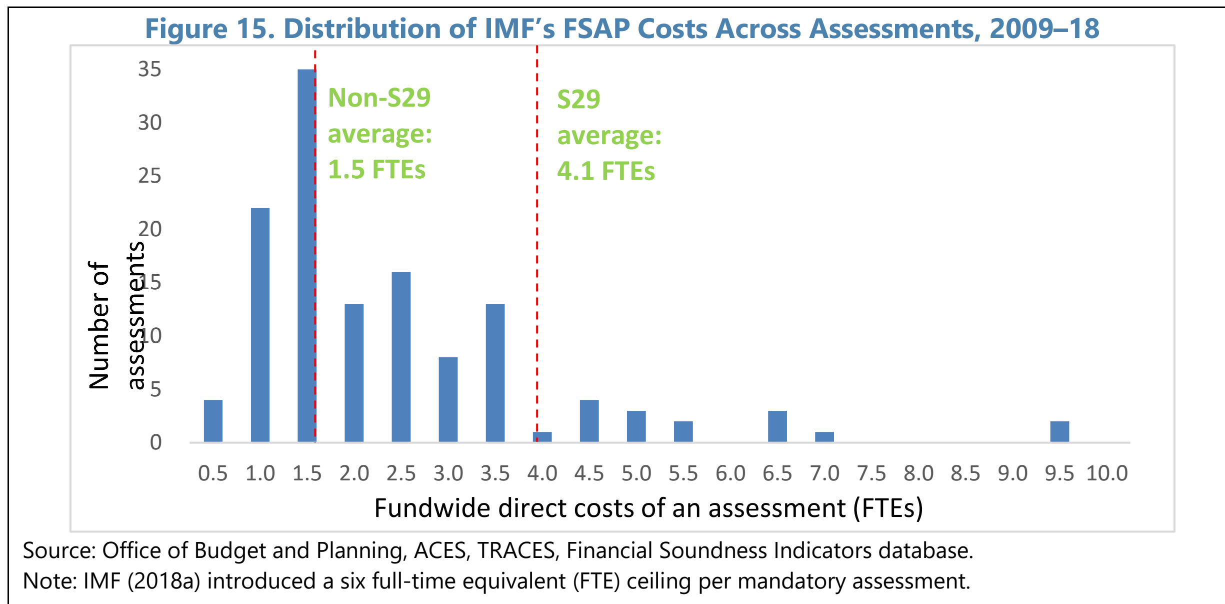
barriers (due to costs associated with translation), travel distance, and data access issues (e.g., limited access via data room adds significantly to staff costs).

Figure 14. IMF's Overall FSAP Costs



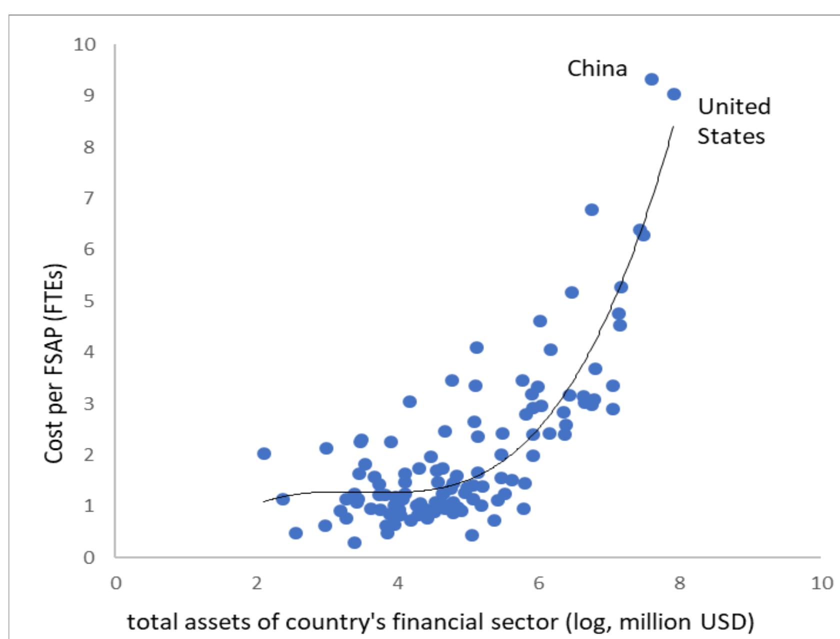
Source: Office of Budget and Planning, ACES, TRACES, and staff calculations.
Notes: Financial years (May-April), Fund-financed spending only (for comparability, donor-financed activities not included).

Figure 15. Distribution of IMF's FSAP Costs Across Assessments, 2009–18



Source: Office of Budget and Planning, ACES, TRACES, Financial Soundness Indicators database.
Note: IMF (2018a) introduced a six full-time equivalent (FTE) ceiling per mandatory assessment.

Figure 16. FSAP Costs and Financial System Size



Source: Office of Budget and Planning, TRACES, Financial Soundness Indicators database.
Notes: The calculations focus on single jurisdiction FSAPs and exclude the Euro Area FSAP (8.7 FTEs). IMF (2018a) introduced a six FTE ceiling per mandatory assessment.

87. **After controlling for the underlying factors, there is no significant difference in costs between FSAPs for SIFS and non-SIFS jurisdictions**. The average cost for an S29 FSAP was 4.1 FTEs as compared with 1.5 FTEs per non-S29 FSAP. Reflecting this difference in average costs, the S29 jurisdictions account for about 70 percent of the program's overall costs (while corresponding to 40 percent of the number of assessments). These cost differences can be explained by the underlying cost factors, such as size and complexity. After controlling for these factors, a jurisdiction's presence on or absence from the SIFS list makes no cost difference. Indeed, some relatively complex voluntary assessments, such as South Africa, were more expensive than some mandatory assessments. This is consistent with the fact that the risk-based approach to scoping an FSA under the FSAP is the same for mandatory and voluntary assessments.

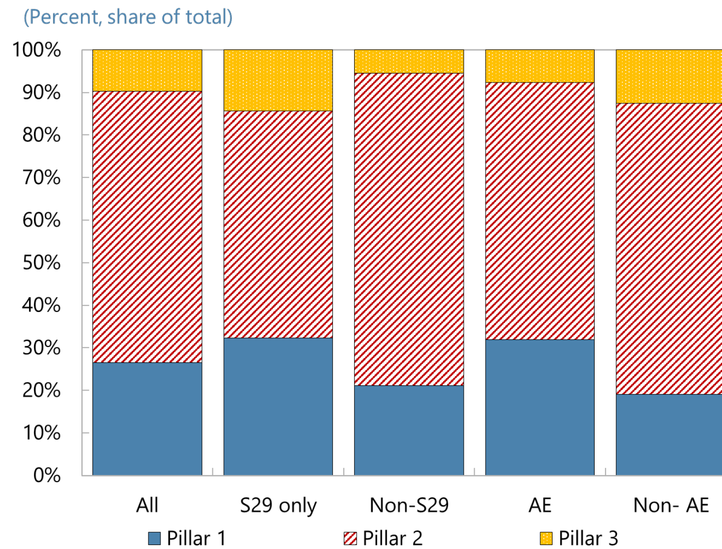
88. **FSAP costs to country authorities also vary widely across jurisdictions**. Based on country authorities' responses to the FSAP survey, the median overall cost on the authorities' side was about 1 FTE per FSAP. Size and complexity also explain most of authorities' costs. Costs for jurisdictions with mandatory assessments are higher than for others, and costs of advanced economy FSAPs are higher than for those in emerging markets and developing economies.

89. **Across the three pillars of stability assessment, the largest part of authorities' cost (about 60 percent) comes from work on financial oversight** (Figure 17). Risk analysis is the second-largest cost item, at about 25 percent. Risk analysis cost (as a share of total cost) is higher for

jurisdictions with SIFS and advanced economies, reflecting the greater demands on quantitative analysis in light of the complexity of those financial systems.

Figure 17. FSAP Costs to Authorities

Pillar 2 accounts for about 60 percent of authorities' costs.



Source: 2020 FSAP Review—Survey of country authorities, IMF staff calculations.

B. Cost of Proposal to Make Country Participation More Risk-Based

90. The proposed expansion in the number of mandatory assessments can be managed without reducing opportunities for voluntary assessments by reprioritization within MCM. The expansion of mandatory FSAs to 47 jurisdictions, with 32 jurisdictions at a five-year frequency and 15 at a ten-year frequency, would ceteris paribus cost an additional 1½ FTEs per year. The increase is small as we account for the fact that most of the additional jurisdictions have already been periodically participating in FSAP voluntarily. For example, three new jurisdictions on the list—Indonesia, Saudi Arabia, and South Africa—already undertake voluntary FSAPs roughly every five years, in line with their commitments to the FSB. Also, several other new jurisdictions on the updated list already undertake FSAPs about every ten years. The "net" additions to the mandatory list from a resource perspective are only Greece, Portugal, Hungary, Slovakia, and the United Arab Emirates that have not participated in FSAP for more than ten years (highlighted in red in Table 4). The resource need could be addressed by reprioritization within MCM's budget.

SUMMARY

A. Proposals

91. Table 6 summarizes this Review's proposals.

Table 6. 2021 FSAP Review—Summary of Proposals

#	Proposal
Scope	
I-1	Use the flexibility in the three-pillar framework to capture emerging risks and prioritize scope according to systemic importance.
I-2	If a positive comprehensive assessment under the latest standard is available, structure the financial stability assessments around one or two cross-cutting themes while preserving assessments across all the three pillars.
I-3	Continue to use the risk-focused approach to international standards, as per IMF (2017a).
I-4	Endorse the Key Attributes of Effective Resolution Regimes as the assessment benchmark for insurance resolution frameworks in FSAPs and stand-alone assessments and the Key Attributes Methodology for the Insurance Sector.
Quantitative Tools	
II-1	Strengthen tools for macrofinancial feedback analysis and calibration of macroprudential policies, interconnectedness and contagion, and NBFIs.
II-2	Develop assessment methodologies and tools for fintech, cyber risk, and climate risk—data permitting.
Traction	
III-1	The FSSA to include a short section summarizing the authorities' views.
III-2	Article IV mission chief participation in the FSAP concluding mission
III-3	Develop stability risk analysis tools for use in bilateral surveillance.
III-4	Early engagement in the preparation of Article IV consultations (see CSR Main Paper ¶17).
Participation	
IV-1	Adopt methodological improvements in the identification of SIFS (notably, using averages over a period of time and dropping derivatives weights).
IV-2	Strengthen the risk-based approach to surveillance by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency.
IV-3	Use the flexibility within the mandatory framework to conduct assessments before the mandatory deadline when warranted.
IV-4	Increase the precision of the criteria for voluntary assessments as proposed in ¶82.
IV-5	Where members subject to mandatory assessments delegate financial sector policies to a supra-national entity, there will be an assessment at the supra-national level focused on these policies. Assessments with suitable modalities should continue for the members subject to mandatory assessments.
IV-6	Conduct regional exercises on thematic topics subject to resource constraints.

B. Implications for the Fund's Risk Profile

92. Overall, the proposals are expected to improve the Fund's risk profile by mitigating surveillance risks. Residual risks in surveillance could remain, in particular, due to data constraints, as well as residual risks in the areas of medium-term and human capital, which are crucial for supporting surveillance. Key risk areas that may be impacted by the proposals are:

- ***Strategic Direction and Reputation***: Expanding mandatory financial stability assessments to more countries and strengthening integration with Article IV consultations would help better align surveillance priorities with the membership's interests, thereby sustaining their support for the Fund's strategic agenda and mitigating reputational risks.

- ***Surveillance***: The proposals would mitigate risks to different aspects of surveillance. Combining flexibility in scoping with risk-based prioritization reduces the risk that new and important risks would be missed. Strengthening quantitative analysis would improve risk identification and spillover analysis, though data constraints may limit staff's ability to conduct the best possible analysis. The proposal to add a short section to the FSSA on authorities' views, and inviting the Article IV mission chief to participate in the FSAP mission, supplemented by readiness to offer a technical seminar on the FSSA, would reduce risks to traction by strengthening engagement with the authorities, the Board, and the Article IV consultation. Expanding mandatory financial stability assessments using a risk-based approach would help reduce the risk of missing financial sector problems that could affect other jurisdictions.

- ***Medium-term Budget***: One proposal—the expansion of the list of systemically important financial sectors, for which financial stability assessments are mandatory—could imply increased demand on the Fund's budget, since the additional FSAPs will require more staffing. However, since the additional staffing requirement is small compared to MCM's overall budget, it is expected to be accommodated by reprioritization within MCM resources.

- ***Human Capital***: Capturing new topics in FSAPs, deepening quantitative analysis, and developing financial stability tools for use in Article IV consultations would require more staff with appropriate skill sets. Management's proposal to augment the structural budget in some of these areas (notably climate change, digitalization, and macrofinancial surveillance in Article IV consultations) provide mitigation opportunities. In the meantime, greater collaboration with external experts on new topics could help reduce the challenge from insufficient expertise.

ISSUES FOR DISCUSSION

- Do Directors agree with the proposals to further strengthen the risk-focused approach to scoping FSAs, making even greater use of flexibility within the three-pillar framework to customize scope in light of the evolving financial challenges facing member countries, including the impact of the Covid-19 crisis?

- Do Directors agree with the proposals to strengthen quantitative analysis in FSAPs, in particular, to improve the modeling of interconnectedness, nonbanks, and macrofinancial feedback effects, the analysis of new issues—such as climate risk, cyber, and fintech—and the calibration of macroprudential policies?

- Do Directors agree with the operational proposals to increase traction by better integration with Article IV reports?

- Do Directors agree with the proposal to strengthen the risk-based approach to mandatory assessments by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency?

- Do Directors agree with the proposal to clarify expectations for supra-national authorities' participation in assessments?

Proposed Decisions

The following decisions, which may be adopted by a majority of the votes cast, are proposed for adoption by the Executive Board:

Decision 1

1. The Fund takes note of the Financial Stability Board's Key Attributes of Effective Resolution Regimes for Financial Institutions (the "Key Attributes") and the Key Attributes Assessment Methodology for the Insurance Sector.

2. The Fund endorses the Key Attributes as they apply to insurance resolution regimes and the related assessment methodology for the purposes of undertaking assessments in the context of the Financial Sector Assessment Program (FSAP) and stand-alone assessments.

Decision 2[31]

Decision Number 14736-(10/92), as amended by Decision No. 15495-(13/111), is hereby further amended to reflect the changes set forth in the Annex to this Decision.

[31] For the information of Directors, Appendix VI to this paper contains a clean version of the Decision incorporating the amendments proposed herein.

Annex. Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance

This Decision sets out the scope and modalities of bilateral surveillance over the financial sector policies of members with systemically important financial sectors and of multilateral surveillance over the spillovers arising from such policies in accordance with Article IV, Sections 3(a) and (b) of the Fund's Articles and the Fund's Decision on Bilateral and Multilateral Surveillance – 2012 Integrated Surveillance Decision (Decision No. 15203-(12/72), adopted July 18, 2012 (the "ISD").

Introduction

1. The obligations of the Fund and its members with regard to bilateral and multilateral surveillance are set forth in Article IV of the Fund's Articles and further elaborated in the ISD.

a. With respect to bilateral surveillance, Article IV, Section 1 requires each member to "collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates" ("systemic stability"). Recognizing the important impact that a member's domestic economic and financial policies can have on systemic stability, Article IV, Sections 1(i) and (ii) establish obligations for members respecting the conduct of these policies, including their financial sector policies. In accordance with the framework set out in Article IV, the ISD provides that systemic stability is most effectively achieved by each member adopting policies that promote its own balance of payments stability and domestic stability—that is, policies that are consistent with members' obligations under Article IV, Section 1 and, in particular, the specific obligations set forth in Article IV, Section 1, (i) through (iv). "Balance of payments stability" refers to a balance of payments position that does not, and is not likely to, give rise to disruptive exchange rate movements. In the conduct of their domestic economic and financial policies, members are considered to be promoting balance of payments stability when they are promoting their own domestic stability that is, when they comply with the obligations of Article IV, Sections 1 (i) and (ii) of the Fund's Articles. For this purpose, the ISD requires the Fund's bilateral surveillance to assess, in particular, whether a member's domestic policies are directed towards domestic stability. It provides that "financial sector policies (both their macroeconomic aspects and macroeconomically relevant structural aspects)" will always be the subject of the Fund's bilateral surveillance with respect to each member. The ISD also provides that, where relevant, each member is accountable for those policies that are conducted by union-level institutions on its behalf.

b. With respect to multilateral surveillance, Article IV, Section 3 (a) requires the Fund to oversee the international monetary system in order to ensure its effective operation, and requires members to consult with the Fund on any issue that the Fund considers necessary for this purpose. The ISD recognizes that the international monetary system may only operate effectively in an environment of global economic and financial stability, and provides that the Fund in its multilateral surveillance will focus on issues that may affect global economic and financial stability, including the spillovers arising from policies of individual members that may significantly influence the effective operation of the international monetary system. The policies of members that may be relevant for this purpose include, among others, members' financial sector policies.

2. While an examination of members' financial sector policies is important in all cases of bilateral surveillance, the Fund decides that, taking into account the framework described above and the overall purpose of surveillance, heightened scrutiny should be given in bilateral surveillance to the financial sector policies of those members whose financial sectors are systemically important, given the risk that domestic and balance of payments instability in such countries will lead to particularly disruptive exchange rate movements and undermine systemic stability. Heightened scrutiny should also be given in multilateral surveillance to the spillover effects of the financial sector policies of those members, given the risk that they may undermine global economic and financial stability. As financial stability assessments are a key tool for assessing members' financial vulnerabilities and financial sector policies, it is appropriate that financial stability assessments be conducted with such members as provided for in this Decision.

3. This Decision does not impose new obligations on members or, in particular, modify the scope of their obligations under Article IV. The Fund, in its bilateral surveillance, will continue to assess whether a member's domestic economic and financial policies are directed toward the promotion of domestic stability. In its multilateral surveillance, the Fund may discuss the impact of members' policies on the effective operation of the international monetary system and may suggest alternative policies that, while promoting the member's own stability, better promote the effective operation of the international monetary system.

Scope and modalities of financial stability assessments

4. *Determination of systemic importance*. The Managing Director, in consultation with the Executive Board, will identify those members that have systemically important financial sectors. This

determination will be made in the context of each review that is conducted under paragraph 9 below, and will be based on an assessment taking into account the size and interconnectedness of members' financial sectors as contemplated in paragraphs 23 to 27 in SM/13/304 and further modified in Appendix V of SM/21/xx. Pursuant to paragraph 7 of Appendix V of SM/21/xx, two sets of thresholds are relevant for the methodology. Using the lower set of thresholds, the methodology identifies jurisdictions with financial sectors that are considered systemically important. Using the higher set of thresholds, the methodology identifies the subset of those jurisdictions with systemically important financial sectors that are subject to more frequent financial stability assessments.

5. *Financial stability assessments*. Where the financial sector of a member is determined to be systemically important pursuant to paragraph 4 of this Decision, the member shall engage in a financial stability assessment in the context of bilateral and multilateral surveillance under Article IV of the Fund's Articles in accordance with the terms of this Decision. For this purpose, the member shall consult with the Fund and the authorities of the member shall make themselves available for discussions with Fund staff of the issues that fall within paragraph 6 of this Decision.

6. *Scope of financial stability assessments*. The financial stability assessments undertaken under this Decision will consist of the following elements:

a. An evaluation of the source, probability, and potential impact of the main risks to macro-financial stability in the near-term for the relevant financial sector. Such an evaluation will involve: an analysis of the structure and soundness of the financial system; trends in both the financial and nonfinancial sectors; risk transmission channels; and features of the overall policy framework that may attenuate or amplify financial stability risks (such as the exchange rate regime). Both quantitative analysis (such as balance sheet indicators and stress tests) and qualitative assessments will be used to evaluate the risks to macro-financial stability.

b. An assessment of the authorities' financial stability policy framework. Such an assessment will involve: an evaluation of the effectiveness of financial sector supervision; the quality of financial stability analysis and reports; the role of and coordination between the various institutions involved in financial stability policy; and the effectiveness of monetary policy.

c. An assessment of the authorities' capacity to manage and resolve a financial crisis should the risks materialize. Such an assessment will involve an overview of the country's liquidity management framework; financial safety nets (such as deposit insurance and lender-of-last-

resort arrangements); crisis preparedness and crisis resolution frameworks; and the possible spillovers from the financial sector onto the sovereign balance sheet.

d. Where relevant, the assessments will also cover the spillovers arising from a member's financial sector policies that may significantly influence global economic and financial stability.

7. *Modalities of assessments*. The key findings and recommendations of a financial stability assessment under this Decision will be summarized in a Financial System Stability Assessment Report (FSSA) that will normally be discussed by the Executive Board at the same time as the relevant Article IV consultation report.

8. *Frequency*. Where the financial sector of a member is determined to be systemically important pursuant to this Decision, it will be expected that a financial stability assessment will be conducted and the FSSA resulting from such an assessment will be discussed by the Executive Board by no later than the ~~first~~ deadline for completion of ~~an~~ the first Article IV consultation with the member that follows the ~~fifth~~ relevant anniversary of such determination or, in the case of the financial sector of a territory of a member, the ~~first deadline for~~ date of completion of ~~an~~ the first Article IV consultation discussion with respect to that territory by the Executive Board that follows the ~~fifth~~ relevant anniversary of such determination. It is expected that subsequent FSSAs for a member with a systemically important financial sector will be discussed by the Executive Board by no later than the ~~first~~ deadline for completion of ~~an~~ the first Article IV consultation with that member that follows the ~~fifth~~ relevant anniversary of the date of completion of the previous Executive Board discussion of the FSSA respecting that member or, in the case of the financial sector of a territory of a member, the ~~first deadline for~~date of completion of ~~an~~ the first Article IV consultation discussion with respect to that territory by the Executive Board that follows the relevant ~~fifth~~ anniversary of the date of completion of the previous Executive Board discussion of the FSSA respecting the financial sector of that territory. For purposes of this paragraph, the relevant anniversary shall be the tenth, except that for members with systemically important financial sectors that are identified by the methodology using the higher set of thresholds referenced in paragraph 4, above, the relevant anniversary shall be the fifth.

9. *Supranational institutions*. This Decision applies to members that have delegated any of the financial sector policies within the scope of paragraph 6 to supranational institutions, subject to the following considerations.

a. *Financial stability assessment.* Where a member has been identified as having a systemically important financial sector in accordance with paragraph 4 of this decision and the member has delegated any of the financial sector policies within the scope of paragraph 6 to supranational institutions, staff will conduct a financial stability assessment with the relevant supranational institutions.

b. *Scope and modalities.* The scope of financial stability assessments undertaken under this Decision with supranational institutions will be broadly as outlined in paragraph 6 of this Decision to the extent applicable. The key findings and recommendations of a financial stability assessment will be summarized in a FSSA that will normally be discussed by the Executive Board at the same time as the relevant report on common policies in the context of Article IV consultations with member countries.

c. *Frequency.* The financial stability assessment with supranational institutions will occur at the frequency applicable to the relevant member subject to mandatory financial stability assessments with the highest frequency. The FSSA will constitute an integral part of the FSSA for each individual member and of the Article IV consultation with each individual member.

Miscellaneous

~~9.~~10. *Review*. It is expected that the Fund will review this Decision no later than five years following the date of its adoption and subsequently at intervals of no longer than five years. In particular, as "systemic importance" is a dynamic concept, the Fund will, in the context of each such review, examine and revise, as necessary, the criteria and methodology for determining members with systemically important financial sectors. Moreover, the Fund may review this Decision at any time to take into account major advances in the availability of data and in the development of methodologies for assessing the systemic importance of financial sectors.

Appendix I. A Brief History of the FSAP

1999 FSAP pilot: a voluntary, comprehensive, in-depth financial sector assessment by Fund and Bank, recommending medium-term reforms, helping to build capacity.

2000 Review of the pilot: broad support for expanding the program on a voluntary basis, with the expectation that all countries would choose to participate over time.

2003 FSAP Board Review: the program is a good example of Fund-Bank collaboration.

2004 FSAP Board Review: publication of FSSAs changed from voluntary to presumed.

2006 IEO: FSAP is "a distinct improvement in the IMF's ability to conduct financial sector surveillance," but FSAP's voluntary nature raises issues for surveillance.

2009 Introduction of stability (Fund) and development (Bank) modules; stability modules defined as having three pillars: risk analysis (pillar I), financial sector policy framework (pillar II), and financial safety nets (pillar III).

2010 Stability assessments for 25 jurisdictions mandatory every five years, formally part of surveillance.

2013 The list of jurisdictions with mandatory stability assessments updated to 29.

2014 FSAP review discusses the use of a macrofinancial filter to identify findings and recommendations, those to be reported in FSSAs.

2017 Criteria set for deciding between a formal graded standard assessment and a focused review.

2017 The FSSR set up as a multi-topic TA instrument that combines a diagnostic review and capacity building.

2018 Initiative to "Modernize and Streamline Fund Operations:" IMF Management sets six FTE cost cap per mandatory financial stability assessment.

2019 IEO Evaluation of IMF Financial Surveillance includes recommendations on the FSAP.

2019 "Rethinking Financial Stability: FSAP at 20" conference at IMF headquarters during the Annual Meetings brought together top policymakers, academics, and practitioners, to discuss the latest thinking on financial stability.

Appendix II. The 2014 FSAP Review Agenda and Follow Up

1. **Continue to shift the focus of all components of the FSA towards systemic risk.** The FSAP has made progress in this area, documented in the 2020 Review.

2. **Upgrade the analytical underpinnings, transparency, and evenhandedness of the assessment of vulnerabilities and resilience**. Since 2014, FSAP teams have (i) expanded the coverage of stress testing tools to nonbank financial institutions; (ii) worked on updated guidance on scenario design and dissemination of standardized quantitative tools; (iii) deepened analytical treatment of interconnectedness and integration with stress tests; (iv) done more systematic analyses of cross-border exposure and spillovers; and (v) devoted greater attention to transparent and detailed disclosure of the limitations of risk assessments. Nonetheless, there is scope to do more, especially on feedback effects. These improvements are discussed in depth in the 2020 Review.

3. **Explore a macrofinancial approach to supervisory standards assessments**. To promote a more macrofinancial approach to supervisory assessments, IMF (2017a) spelled out understandings with standard-setting bodies. In covering a supervisory standard, FSAP teams have the option of either a full DAR that delivers all principle-by-principle gradings or a TN that is guided by the standard's methodology but can take a more risk-based approach and does not produce the individual gradings. The choice between DARs and TNs is a part of the scoping discussions between the staff and country authorities. The decision reflects relative importance of the sector, its degree of vulnerabilities, overall FSAP priorities, changes in the sector or the oversight framework, and changes in the standard or assessment methodology since the last graded assessment. Staff draw upon desk analysis of macrofinancial risks, structural and conjunctural factors, recent institutional and supervisory developments, and a self-assessment provided by the authorities.

4. **Ensure greater focus on and more systematic treatment of macroprudential policy issues in all FSAPs**. Post-2014 FSAP assessments feature increased focus and more treatment of macroprudential policy issues.

5. **Improve traction and maximize input to Article IV consultations by using macrofinancial relevance as the organizing principle**. Staff have made progress, but more can be done to further streamline and prioritize FSAP findings and recommendations and structure assessments to feed more directly into surveillance priorities in subsequent years. The 2020 Review will discuss further steps to increase FSAP's traction and integration with other Article IV consultation.

6. **Step up targeted technical assistance on financial stability issues and, where appropriate, use the World Bank's development modules to mitigate the impact of the global systemic focus of the FSAP on LICs**. Staff have increased support for members without mandatory assessments by introducing the FSSR for low and lower-middle-income economies (Appendix II). The FSSR is not a substitute for FSAP, but it is a useful part of IMF's toolkit. It complements the World Bank's work on financial sector development in low and lower-middle-income economies. Staff calculations confirm that there are no major gaps between FSAP demand and supply, with the two being largely balanced.

Appendix III. Anti-Money Laundering and Combating the Financing of Terrorism

1. Current Fund policy requires timely and accurate input of AML/CFT information into every FSAP[1] Inclusion of AML/CFT issues in the FSAP process is intended to enable staff to incorporate financial integrity issues into broader financial sector reform efforts. Since 2014, input on AML/CFT is mandatory but flexible in scope.

2. This flexibility allows for more focused discussions and more targeted recommendations; it also helps avoid unnecessary duplication with the formal AML/CFT assessment process. In line with the Executive Board's guidance, the AML/CFT input is, where possible, based on a comprehensive AML/CFT assessment or, in due course, a targeted reassessment against the prevailing standard finalized prior to the FSAP. If such an assessment is unavailable, staff may derive key findings based on other relevant sources of information (e.g., previous AML/CFT assessment reports, Fund reports, national risk assessment reports, the authorities' responses to questionnaires prepared for the FSAP, and other reliable information).

3. The inclusion of AML/CFT issues in the FSAP has helped deepen global understanding of the standards and highlighted that robust AML/CFT implementation contributes to financial stability and development. The issues discussed in FSAPs have varied, depending on the severity of AML/CFT challenges in the country and their relevance to the financial sector**.** Most of the key issues raised have pertained to preventive measures (e.g., customer due diligence measures), the country's assessment of its money laundering and terrorist financing risks, risk-based AML/CFT supervision, and transparency of beneficial ownership of legal persons and arrangements. Other issues discussed include terrorist financing and targeted financial sanctions, suspicious transactions reporting, the effectiveness in the use of financial intelligence, international cooperation, reputation risks, and risks from the loss of corresponding banking relationships.

4. The output of the AML/CFT discussion varies. Depending on the level of risks and the availability of a recent assessment, AML/CFT discussions take the form of technical notes, annexes, background notes to the aide memoire, and/or a few paragraphs in the FSSA report.

[1] In keeping with the terminology used in 2014 (see IMF Executive Board Reviews the Fund's Strategy for Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT), Press Release No. 14/167, April 11, 2014), this box refers to "AML/CFT updates," which, in practice, covers financial integrity issues more broadly. See IMF Executive Board Discusses the Fund's Strategy on Anti-Money Laundering and Combating the Financing of Terrorism, Press Release No. 19/25 of February 4, 2019.

Appendix IV. FSSR and FSAP: Similarities and Differences

1. **The FSSR, set up in 2017, is a TA instrument that combines a diagnostic review and capacity building.** The FSSR is targeted towards low and lower-middle-income economies. It delivers a diagnostic review of key components of the financial sector, including regulation, supervision, and safety nets; a review of financial statistics; a TA Roadmap; and a multi-year follow-up TA project to help countries strengthen financial stability frameworks. A Financial Sector Reform Module, led by MCM through the FSSR, is complemented by a Financial Sector Statistics Module, led by the Statistics Department.

2. **An FSSR is a useful complementary instrument for IMF's financial sector work.** However, an FSSR is not a substitute for an FSAP. The following table summarizes the similarities and differences.

	FSSR	FSAP
Primary role in IMF's work	Technical assistance	Surveillance
Country coverage	Targeted (low and lower-middle-income economies)	Universal (all members)
Participation	Voluntary	Mandatory for jurisdictions with SIFS, voluntary for all others
Assessment of financial stability	Diagnose authorities' capacity to analyze financial stability and identify gaps.	Staff conduct risk analysis to assess the resilience of the system to severe but plausible shocks.
Includes a TA roadmap?	Yes	No, although TA may follow
Assessments of observance of international standards	Never included	Voluntary, often included
Findings discussed by the IMF's Executive Board?	No	Yes
Joint with the World Bank?	No (except for financial inclusion), but cooperates and liaises with the World Bank	Yes (though IMF only for advanced economies)
Includes assessment of financial development needs?	No, but takes account of broad development goals.	Yes, when joint with the World Bank
Includes technical assistance on financial stability statistics?	Yes	No
Primary funding	External donors	IMF (and the World Bank when joint)

Appendix V. Methodology for Determining Systemically Important Financial Sectors

1. **The starting point for determining the systemic importance of financial sectors was the framework laid out in the 2009 IMF-BIS-FSB report to G20 finance ministers and governors**.[1] The report identified three concepts for evaluating the systemic importance of financial institutions, markets, and instruments: size, interconnectedness, and substitutability.[2] The 2010 Board decision[3] noted that substitutability, while applicable to individual financial institutions, is less relevant for entire financial sectors and adopted size and interconnectedness as the two criteria to use when evaluating financial sectors' systemic importance.

2. **In 2010, the Board adopted an indicator-based methodology based on *size* and *interconnectedness* to evaluate the systemic importance of financial sectors.** The methodology created two indices of financial sector size and interconnectedness and combined these indices into a final composite index of systemic importance. Using this composite index, the methodology identified 25 systemically important financial sectors (SIFS), which laid the foundation for the first round of mandatory assessments.

3. **In 2013, the Board adopted a network-based approach to identify SIFS, which increased the number of SIFS to 29.**[4] By 2013, the first round of mandatory FSAs was close to completion. The approach for identifying SIFS was strengthened to incorporate the lessons from this first round of mandatory assessments, as well as from the global financial crisis and the sovereign debt crisis in Europe. The crisis experience had highlighted the importance of interconnectedness through which shocks could lead to significant spillovers, materially affecting stability in other jurisdictions.[5] Based on these insights, the Board adopted in 2013 a network-based approach to identify SIFS by applying the Clique Percolation Method (CPM) to data on cross-border financial interlinkages (Box 1). As a result, four countries—Denmark, Norway, Poland, and Finland—were added to the list of jurisdictions with SIFS bringing the total number to 29 members (the S29—see Appendix V Table 1).

4. **Staff consider that the 2013 methodology remains broadly appropriate to identify jurisdictions with SIFS, though, as described below, two minor modifications and a threshold adjustment are warranted.** The methodology incorporates the main lessons learned from past crises and captures cross-country interconnectedness through which shocks could

[1] See IMF/BIS/FSB, (2009) Guidance to Assess the Systemic Importance of Financial Institutions, Markets and Instruments: Initial Considerations.

[2] Substitutability refers to the extent to which other institutions or markets can provide the same services in the event of the failure of an institution or a market.

[3] See IMF, (2010), Integrating Stability Assessments Under the Financial Sector Assessment program into Article IV Surveillance, Decision No. 14736-(10/92).

[4] See IMF, (2013), Mandatory Financial Stability Assessments Under the Financial Sector Assessment Program – Update.

[5] This concept corresponds to "loss-given-default" in credit risk management literature, distinct from the "probability of default"—the likelihood that jurisdiction could face significant financial sector distress.

lead to significant spillovers. Applying the 2013 approach to defining the list of jurisdictions with SIFS to the latest available data (end-2019) yields similar results to the current list, and changes seem reasonable. Given that the architecture of the global financial system and its interconnections have evolved gradually, it is reassuring to see the 2013 approach selects similar lists of jurisdictions over time.

Appendix V. Table 1. 2013 List of Jurisdictions with Mandatory Assessments (S29)

Australia	Hong Kong SAR	Poland
Austria	India	Russia
Belgium	Ireland	Singapore
Brazil	Italy	Spain
Canada	Japan	Sweden
China	Korea	Switzerland
Denmark	Luxembourg	Turkey
Finland	Mexico	United Kingdom
France	Netherlands	United States
Germany	Norway	

Source: Staff calculations.

5. Approaches to measuring systemic risk for individual financial institutions using only market prices are less appropriate to measuring country-level systemic importance. Since the GFC, several approaches have been developed to identify systemic financial institutions.[6] These provide useful insights but have their drawbacks when it comes to measuring jurisdiction-level systemic importance. For one, they primarily rely on equity prices, which often deviate from other financial indicators such as credit risk (e.g., credit default swap, CDS). Also, relying only on equity prices could provide noisy indicators of cross-country financial linkages since equity price co-movements could represent linkages other than financial interconnectedness (such as synchronized real business cycles). Finally, the Basel Committee does not use such measures to identify G-SIBs. On balance, staff view the 2013 methodology as continuing to provide a reasonable basis for identifying SIFS.

[6] Examples include Diebold and Yilmaz (2014), who used equity volatility data, the CoVaR developed by Adrian and Brunnermeier (2016) that applies value-at-risk (VaR) models, the systemic contingent claims analysis (CCA) measuring default dependence using equity price and debt ratio, and the expected shortfall approach by Acharya and others (2017).

Appendix V. Box 1. Summary of the 2013 Methodology for Determining Jurisdictions with Systemically Important Financial Sectors[1]

The 2013 approach to identify SIFS has network analysis at its core, with size and interconnectedness playing key roles. The staff apply the CPM to four financial networks representing the major interconnections between financial systems that can potentially serve to transmit shocks, giving rise to systemic risk. The CPM is a standard methodology for fully tracing out a detailed overall network structure. The application of the CPM in the 2013 approach to multiple financial networks, at the same time, (the so-called multi-layer network) was novel. The financial linkages analyzed included both: i) direct connections between financial systems (banks and NBFIs), through cross-border holdings of banking sector assets, debt securities, and equities; and ii) indirect connections through equity return correlations. Specifically, the four financial networks were: (i) bank claims (BIS), (ii) debt securities claims (the Coordinated Portfolio Investment Survey, CPIS), (iii) equity claims (CPIS), and (iv) stock market return correlation.

The CPM identifies the so-called "core" of a network. It is used to identify jurisdictions that are central in the global financial network. When assessing the centrality and importance of a jurisdiction, CPM takes a holistic view of the jurisdiction's connections in a network. A jurisdiction's importance depends not only on the number of direct linkages between that jurisdiction and its neighbors but also on the linkages those neighbors have with others. The CPM selects systemically important jurisdictions by examining this full network structure and the strength of the links. In order to differentiate the links by their strength (exposure size or correlation levels), a "threshold" is chosen, and only the links with the strength above the thresholds are counted. The CPM identifies the "core" of a cross-country financial network as the union of sub-groups of jurisdictions that are fully interconnected among each other. At such a core, the potential for contagion is high since a shock to any of the members has the potential to affect all other members of the group given the full set of connections.

In the final step, the union of the cores across each of the four financial networks listed above is taken to form the group of jurisdictions with SIFS. Membership of any one of the four networks can potentially serve as channels of contagion between jurisdictions. Thus, if a jurisdiction is part of the core of any one of the four networks, it is included in the list of jurisdictions with SIFS.

1/ See the Background Note for September 4, 2019 technical Board seminar: Staff Technical Briefing on FSAP Review—Methodology for Determining Systemically Important Financial Sectors for details.

6. Staff propose to make two minor adjustments to the 2013 methodology to enhance its robustness:

- *Use the latest five-year average, as opposed to the latest available year*. Averaging data over five years smooths out the volatility in annual data while still reflecting the changing trends in linkages between jurisdictions.

- *Drop the derivatives weights.* In 2013, staff included derivatives exposures to weight input data to capture the complexity of financial sectors, even though it was not one of the two criteria (size and interconnectedness) that the Board emphasized in the 2010 decision. Moreover, a closer examination of the indicator suggests derivatives information tends to skew selection to financial centers at the expense of EMDEs. Derivatives data from the BIS are recorded on an "ultimate risk basis," which means that a derivatives contract booked in the host jurisdiction via a subsidiary will be recorded under the home jurisdiction. Therefore, staff propose to weight bilateral exposures by only PPP-GDP data (similar in this aspect to the 2010 methodology).

7. This Review proposes to further strengthen the risk-based approach to surveillance by adding an additional level of risk tolerance to identify additional jurisdictions assessed at a lower frequency (Table 4). The refreshed list, which is established using the existing risk tolerance, includes 32 jurisdictions subject to five-year assessment frequency. The corresponding thresholds are 1.75 percent for the bank claims network, 1.50 percent for the debt securities claims and equity claims networks, and 3.00 percent for the return correlation network. It newly includes Greece, Indonesia, Portugal, and Saudi Arabia while Poland drops off. In addition, staff propose to establish a second, lower risk tolerance level with corresponding thresholds of 0.85 percent for the bank claims network, 0.60 percent for the debt securities claims and equity claims networks, and 2.10 percent for the return correlation network. Those 15 jurisdictions, which fall between the two tolerance levels under this methodology, would be subject to mandatory FSAs every ten years. Overall, 47 jurisdictions, including more EMDEs, would be subject to mandatory FSAs. Reducing overall risk tolerance would ensure that mandatory FSAs cover jurisdictions with lower size-weighted interconnectedness that could affect many other jurisdictions. The lower size-weighted interconnectedness of the newly added jurisdictions (relative to the new proposed S-32) motivates the lower frequency of assessments.

Appendix VI. FSAP Review Surveys

1. For the 2021 FSAP Review, staff conducted two surveys. The first is a comprehensive survey in 2019, and the second is a follow-up survey in mid-2020 focusing on pandemic-related issues. Both surveys covered five sets of stakeholders: country authorities, Executive Directors, Article IV mission chiefs and SPR senior reviewers, FSAP mission chiefs and deputy mission chiefs, and MCM staff. The summary of the 2019 Survey can be found in the background paper on the 2019 FSAP Review survey, which was issued to the Board ahead of the December 2019 Board meeting on the FSAP Review Midpoint Note (FO/DIS/19/191 Supplement 1).

2. Overall, country authorities' responses to the surveys are broadly balanced across income groups and between mandatory and voluntary participants (Appendix VI, Table 1).

Appendix VI. Table 1. Characteristics of Respondents: National Authorities

Stakeholder	Survey version	Unit	Respondents				
			All	AE	EMDE	S29	Voluntary
Country Authority (all respondents)	2019	Number	131	82	49	57	74
		In percent	*100*	*63*	*37*	*44*	*56*
	2020	Number	172	97	75	74	98
		In percent	*100*	*56*	*44*	*43*	*57*
County Authority (jurisdictions)	2019	Number	75	40	35	25	50
		In percent	*100*	*53*	*47*	*33*	*67*
	2020	Number	87	41	46	27	60
		In percent	*100*	*47*	*53*	*31*	*69*

Sources: 2019, 2020 FSAP Review Survey and staff calculations.
AE = advanced economy; EMDE = emerging market and developing economy.

3. Among other stakeholders, the number of respondents was generally lower in the 2020 follow up survey (Appendix VI, Table 2).

Appendix VI. Table 2. Characteristics of Respondents: Other

Survey version	Respondents			
	Executive Directors	Area Departments and SPR	MCM Staff	FSAP mission chiefs and deputies
2019	14	40	53	91
2020	15	17	46	30

Sources: 2019, 2020 FSAP Review Survey and staff calculations.

Appendix VII. Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance: Text of Amended Decision

This Decision sets out the scope and modalities of bilateral surveillance over the financial sector policies of members with systemically important financial sectors and of multilateral surveillance over the spillovers arising from such policies in accordance with Article IV, Sections 3(a) and (b) of the Fund's Articles and the Fund's Decision on Bilateral and Multilateral Surveillance – 2012 Integrated Surveillance Decision (Decision No. 15203-(12/72), adopted July 18, 2012 (the "ISD").

Introduction

1. The obligations of the Fund and its members with regard to bilateral and multilateral surveillance are set forth in Article IV of the Fund's Articles and further elaborated in the ISD.

   a. With respect to bilateral surveillance, Article IV, Section 1 requires each member to "collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates" ("systemic stability"). Recognizing the important impact that a member's domestic economic and financial policies can have on systemic stability, Article IV, Sections 1(i) and (ii) establish obligations for members respecting the conduct of these policies, including their financial sector policies. In accordance with the framework set out in Article IV, the ISD provides that systemic stability is most effectively achieved by each member adopting policies that promote its own balance of payments stability and domestic stability—that is, policies that are consistent with members' obligations under Article IV, Section 1 and, in particular, the specific obligations set forth in Article IV, Section 1, (i) through (iv). "Balance of payments stability" refers to a balance of payments position that does not, and is not likely to, give rise to disruptive exchange rate movements. In the conduct of their domestic economic and financial policies, members are considered to be promoting balance of payments stability when they are promoting their own domestic stability that is, when they comply with the obligations of Article IV, Sections 1 (i) and (ii) of the Fund's Articles. For this purpose, the ISD requires the Fund's bilateral surveillance to assess, in particular, whether a member's domestic policies are directed towards domestic stability. It provides that "financial sector policies (both their macroeconomic aspects and macroeconomically relevant structural aspects)" will always be the subject of the Fund's bilateral surveillance with respect to each member. The ISD also provides that, where relevant, each member is accountable for those policies that are conducted by union-level institutions on its behalf.

b. With respect to multilateral surveillance, Article IV, Section 3 (a) requires the Fund to oversee the international monetary system in order to ensure its effective operation, and requires members to consult with the Fund on any issue that the Fund considers necessary for this purpose. The ISD recognizes that the international monetary system may only operate effectively in an environment of global economic and financial stability, and provides that the Fund in its multilateral surveillance will focus on issues that may affect global economic and financial stability, including the spillovers arising from policies of individual members that may significantly influence the effective operation of the international monetary system. The policies of members that may be relevant for this purpose include, among others, members' financial sector policies.

2. While an examination of members' financial sector policies is important in all cases of bilateral surveillance, the Fund decides that, taking into account the framework described above and the overall purpose of surveillance, heightened scrutiny should be given in bilateral surveillance to the financial sector policies of those members whose financial sectors are systemically important, given the risk that domestic and balance of payments instability in such countries will lead to particularly disruptive exchange rate movements and undermine systemic stability. Heightened scrutiny should also be given in multilateral surveillance to the spillover effects of the financial sector policies of those members, given the risk that they may undermine global economic and financial stability. As financial stability assessments are a key tool for assessing members' financial vulnerabilities and financial sector policies, it is appropriate that financial stability assessments be conducted with such members as provided for in this Decision.

3. This Decision does not impose new obligations on members or, in particular, modify the scope of their obligations under Article IV. The Fund, in its bilateral surveillance, will continue to assess whether a member's domestic economic and financial policies are directed toward the promotion of domestic stability. In its multilateral surveillance, the Fund may discuss the impact of members' policies on the effective operation of the international monetary system and may suggest alternative policies that, while promoting the member's own stability, better promote the effective operation of the international monetary system.

Scope and modalities of financial stability assessments

4. *Determination of systemic importance*. The Managing Director, in consultation with the Executive Board, will identify those members that have systemically important financial sectors. This determination will be made in the context of each review that is conducted under paragraph 9 below, and will be based on an assessment taking into account the size and interconnectedness of members' financial sectors as contemplated in paragraphs 23 to 27 in SM/13/304 and further modified in Appendix V of SM/21/52. Pursuant to paragraph 7 of Appendix V of SM/21/52, two sets of thresholds are relevant for the methodology. Using the lower set of thresholds, the methodology identifies jurisdictions with financial sectors that are considered systemically important. Using the higher set of thresholds, the methodology

identifies the subset of those jurisdictions with systemically important financial sectors that are subject to more frequent financial stability assessments.

5. *Financial stability assessments*. Where the financial sector of a member is determined to be systemically important pursuant to paragraph 4 of this Decision, the member shall engage in a financial stability assessment in the context of bilateral and multilateral surveillance under Article IV of the Fund's Articles in accordance with the terms of this Decision. For this purpose, the member shall consult with the Fund and the authorities of the member shall make themselves available for discussions with Fund staff of the issues that fall within paragraph 6 of this Decision.

6. *Scope of financial stability assessments*. The financial stability assessments undertaken under this Decision will consist of the following elements:

a. An evaluation of the source, probability, and potential impact of the main risks to macro-financial stability in the near-term for the relevant financial sector. Such an evaluation will involve: an analysis of the structure and soundness of the financial system; trends in both the financial and nonfinancial sectors; risk transmission channels; and features of the overall policy framework that may attenuate or amplify financial stability risks (such as the exchange rate regime). Both quantitative analysis (such as balance sheet indicators and stress tests) and qualitative assessments will be used to evaluate the risks to macro-financial stability.

b. An assessment of the authorities' financial stability policy framework. Such an assessment will involve: an evaluation of the effectiveness of financial sector supervision; the quality of financial stability analysis and reports; the role of and coordination between the various institutions involved in financial stability policy; and the effectiveness of monetary policy.

c. An assessment of the authorities' capacity to manage and resolve a financial crisis should the risks materialize. Such an assessment will involve an overview of the country's liquidity management framework; financial safety nets (such as deposit insurance and lender-of-last-resort arrangements); crisis preparedness and crisis resolution frameworks; and the possible spillovers from the financial sector onto the sovereign balance sheet.

d. Where relevant, the assessments will also cover the spillovers arising from a member's financial sector policies that may significantly influence global economic and financial stability.

7. *Modalities of assessments*. The key findings and recommendations of a financial stability assessment under this Decision will be summarized in a Financial System Stability Assessment Report (FSSA) that will normally be discussed by the Executive Board at the same time as the relevant Article IV consultation report.

8. *Frequency*. Where the financial sector of a member is determined to be systemically important pursuant to this Decision, it will be expected that a financial stability assessment will be conducted and the FSSA resulting from such an assessment will be discussed by the Executive Board by no later than the deadline for completion of the first Article IV consultation with the member that follows the relevant anniversary of such determination or, in the case of the financial sector of a territory of a member, the date of completion of the first Article IV consultation discussion with respect to that territory by the Executive Board that follows the relevant anniversary of such determination. It is expected that subsequent FSSAs for a member with a systemically important financial sector will be discussed by the Executive Board by no later than the deadline for completion of the first Article IV consultation with that member that follows the relevant anniversary of the date of completion of the previous Executive Board discussion of the FSSA respecting that member or, in the case of the financial sector of a territory of a member, the date of completion of the first Article IV consultation discussion with respect to that territory by the Executive Board that follows the relevant anniversary of the date of completion of the previous Executive Board discussion of the FSSA respecting the financial sector of that territory. For purposes of this paragraph, the relevant anniversary shall be the tenth, except that for members with systemically important financial sectors that are identified by the methodology using the higher set of thresholds referenced in paragraph 4, above, the relevant anniversary shall be the fifth.

9. *Supranational institutions*. This Decision applies to members that have delegated any of the financial sector policies within the scope of paragraph 6 to supranational institutions, subject to the following considerations.

a. *Financial stability assessment*. Where a member has been identified as having a systemically important financial sector in accordance with paragraph 4 of this decision and the member has delegated any of the financial sector policies within the scope of paragraph 6 to supranational institutions, staff will conduct a financial stability assessment with the relevant supranational institutions.

b. *Scope and modalities*. The scope of financial stability assessments undertaken under this Decision with supranational institutions will be broadly as outlined in paragraph 6 of this Decision to the extent applicable. The key findings and recommendations of a financial stability assessment will be summarized in a FSSA that will normally be discussed by the Executive Board at the same time as the relevant report on common policies in the context of Article IV consultations with member countries.

c. *Frequency*. The financial stability assessment with supranational institutions will occur at the frequency applicable to the relevant member subject to mandatory financial stability assessments with the highest frequency. The FSSA will constitute an integral part of the

FSSA for each individual member and of the Article IV consultation with each individual member.

Miscellaneous

10. *Review*. It is expected that the Fund will review this Decision no later than five years following the date of its adoption and subsequently at intervals of no longer than five years. In particular, as "systemic importance" is a dynamic concept, the Fund will, in the context of each such review, examine and revise, as necessary, the criteria and methodology for determining members with systemically important financial sectors. Moreover, the Fund may review this Decision at any time to take into account major advances in the availability of data and in the development of methodologies for assessing the systemic importance of financial sectors.

References

Adrian, T., J. Morsink, and L. Schumacher. 2020. Stress Testing at the IMF.

Anderson, R., J. Danielsson, C. Baba, U. Das, H. Kang, M. Segoviano. 2018. Macroprudential Stress Tests and Policies: Searching for Robust and Implementable Frameworks, IMF Working Paper No. 18/197.

Bank for International Settlements. 2013. "Global systemically important banks: updated assessment methodology and the higher loss absorbency requirement", *Basel Committee on Banking Supervision*, July 2013.

Caprio, G. 2019. Assessing the FSAP: Quality Relevance and Value Added. BP/18-02/02. Independent Evaluation Office Review of IMF Financial Surveillance.

Independent Evaluation Office. 2019, "IEO Evaluation of IMF Financial Surveillance: Main Report", IEO.

International Monetary Fund. 2009a. *Revised Approach to Financial Regulation and Supervision Standards Assessments in FSAP Updates*.

______. 2009b. *The Financial Sector Assessment Program After Ten Years: Experience and Reforms for the Next Decade*.

______. 2009c. *IMF Executive Board Reviews Experience with the Financial Sector Assessment Program, Options for the Future, and Complementary Reforms in Surveillance and the Assessment of Standards and Codes*, Public Information Notice (PIN) No. 09/123.

______.2010a. Integrating Stability Assessment Under the Financial Sector Assessment Program into Article IV Surveillance. IMF Policy Papers.

______.2010b. Integrating Stability Assessments Under the Financial Sector Assessment Program into Article IV Surveillance: Background Material. IMF Policy Papers.

______. 2013. Key Aspects of Macroprudential Policy, IMF Policy Papers.

______. 2014a. *Review of the Financial Sector Assessment Program: Further Adaptation to the Post-Crisis Era*.

______. 2014b. *Staff Guidance Note on Macroprudential Policy*. IMF Policy Papers.

______. 2014c. *Review of the Fund's Strategy on Anti-Money Laundering and Combating the Financing of Terrorism*.

______. 2014d. Staff Guidance Note on macroprudential Policy Considerations for Low Income Countries. IMF Policy Papers.

______. 2017a. Use of Supervisory Standards in the Financial Sector Assessment Program—Understanding with Standard Setting Bodies. IMF Policy Papers.

______. 2017b. *Joint Review of the Standards and Codes Initiative*. IMF Policy Papers.

______. 2018a. *Modernizing and Streamlining Fund Operations—Achieving Further Progress*. (FO/DIS/18/87).

______. 2018b "Interim Surveillance Review"

______. 2019. Review of the Fund's Strategy on Anti-Money Laundering and Combating the Financing of Terrorism.

______.2020a. Supervisory Actions and Priorities in Response to the COVID-19 Pandemic Crisis. IMF, MCM Special COVID-19 Note.

______.2020b. Managing Systemic Banking Crisis: New Lessons and Lessons Relearned. MCM Departmental Paper No. 20/05.

______.2020c. *Toward an Integrated Policy Framework*. IMF Policy Paper No. 2020/046.

______.2020d. Private Debt Resolution Measures in the Wake of the Pandemic. IMF, MCM Special COVID-19 Note.

International Monetary Fund and the Financial Stability Board (IMF and FSB). 2020. G20 Data Gap Initiative: The Fifth Progress Report—Countdown to 2021 in Light of COVID-19. The IMF Staff and FSB Secretariat.

International Monetary Fund and the World Bank. 2009. The Financial Sector Assessment Program After Ten Years: Experience and Reforms for the Next Decade

______.2020. COVID-19: The Regulatory and Supervisory implications for the Banking Sector: A Joint IMF-World Bank Staff Position Note.

Nolte, J. P. and D. Hoelscher. 2020. Using the FSB Key Attributes for Design Bank Resolution Frameworks for Non-FSB Members: Proportionality and Implementation Challenges. The World Bank Working Paper.