BACKGROUND PAPER

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Aspects of IMF Financial Sector Surveillance During the Crisis

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Aspects of IMF Financial Sector Surveillance During the Crisis

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ABBREVIATIONS

ACP	Autorité de Contrôle Prudentiel (France)
FDIC	Federal Deposit Insurance Corporation (United States)
FSA	Financial Services Authority (United Kingdom)
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSF	Financial Stability Forum
FSSA	Financial System Stability Assessment
G20	Group of Twenty
GFSR	*Global Financial Stability Report*
GSE	Government-Sponsored Entity
IEO	Independent Evaluation Office of the IMF
IMF	International Monetary Fund
MINEFI	Ministry of Economy, Finance, and Industry (France)
RBI	Reserve Bank of India
ROSC	Report on the Observance of Standards and Codes
SEC	Securities and Exchange Commission (United States)
SIFI	Systemically Important Financial Institution
TITF	Too Important To Fail
WEO	*World Economic Outlook*

EXECUTIVE SUMMARY

During the crisis, the IMF's role in financial sector surveillance involved three interrelated aspects: drawing policy lessons from the crisis and recommending actions to restore financial stability; developing recommendations to strengthen supervisory, regulatory, and macro-prudential frameworks, in collaboration with other agencies; and making the Financial Sector Assessment Program (FSAP) more effective and integrating it with Article IV surveillance. In particular, in September 2010, the IMF made FSAP financial stability assessments mandatory at least every five years for the top 25 (subsequently 29) jurisdictions with systemically important financial sectors. This paper assesses the IMF's performance in this role during 2008–12 primarily through the lens of the *Global Financial Stability Report* (*GFSR*) and a sample of FSAP and Article IV reports.

The IMF was early to warn that growing weaknesses in major financial institutions posed a serious risk to global financial stability. The IMF's diagnosis of the causes of the financial crisis emphasized market failures, insufficient regulatory and supervisory resources and powers, and deficiencies in the coordination of policies across countries. The IMF consequently recommended a four-part policy strategy to address weaknesses in financial systems involving greater information disclosure; expansion of the supervisory perimeter; empowerment of supervisory and regulatory agencies to identify and change destabilizing actions; and greater international collaboration and coordination in the regulation and supervision of interconnected financial institutions. Beyond these core policy strategies, the *GFSR* provided detailed assessments of an extensive array of supervisory and regulatory concerns.

However, the IMF's financial sector policy advice following the crisis was based on an incomplete diagnosis of the causes of the crisis and did not sufficiently emphasize the role of incentives. The diagnosis exaggerated the role of market failures and underplayed the failures of regulation and supervision. The IMF did not sufficiently highlight the impact of regulatory and supervisory policies on the incentives of decision makers within financial institutions. In making its recommendations, the IMF too often presumed that granting regulators and supervisors greater resources, power, and authority would produce safer, more efficient financial systems and too infrequently addressed material deficiencies in the governance of regulatory and supervisory agencies. During 2008–09, the Fund also seemed timid in its analysis and critique of key elements of Basel II.

The Fund improved its financial sector analysis and advice along several dimensions over time, but the core weaknesses remain.

The headline messages of the IMF's 2010 FSAP for the United States were largely in agreement with the U.S. authorities' views and policy proposals. Along other dimensions, however, the IMF provided frank critiques of U.S. policies, including in its Article IV consultations. As for the mandatory financial stability assessments, a review of six found that while the technical quality of the reports was generally sound, some of the advice did not adequately consider country-specific factors and some important themes were omitted.

I. Introduction

1. During the global financial crisis, the IMF's role in financial sector surveillance involved three interrelated aspects: drawing policy lessons from the crisis and recommending actions to restore financial stability; developing recommendations to strengthen supervisory, regulatory, and macro-prudential frameworks, in collaboration with other international organizations, regulatory bodies, and standard-setting agencies; and making the Financial Sector Assessment Program (FSAP) more effective and integrating it with Article IV surveillance.

2. This paper assesses facets of the IMF's performance in this role during the period from 2008 through 2012. It evaluates the IMF's diagnosis of the causes of financial weaknesses, its analyses of financial sector challenges, and its resultant financial sector policy recommendations. Given the centrality of the financial challenges that confronted the United States in particular, the paper provides a commensurately focused evaluation of the IMF's perspectives on U.S. financial regulatory and supervisory policies.[1]

3. The main sources of evidence for this paper are published outputs of the IMF, specifically, the *Global Financial Stability Reports (GFSR*s*),* relevant policy papers prepared for the Executive Board, and research products such as IMF Staff Position/Discussion Notes.[2] In addition, FSAP reports and Article IV consultation reports were reviewed and interviews were conducted with senior IMF staff.

4. The paper adopts a chronological approach since the IMF's response and views changed over the period from 2008 through 2012. It traces the evolution of the IMF response and assesses the quality of these diagnoses, analyses, and policy recommendations.

5. This paper's assessments are based on how well important issues were considered in key IMF reports, rather than whether they were mentioned in an IMF document. The reason is that given the large volume of documents analyzing financial sector issues by IMF Staff over the period 2008–12, essentially every financial sector topic is mentioned in some chapter, box, footnote, appendix, or annex. Therefore, an assessment that "issue A received too little attention," means that even though issue A might have been mentioned in a specific

[1] This paper does not assess financial sector surveillance of emerging market economies and low-income countries. Also, because it focuses predominantly on published reports, this paper does not assess the Fund's engagement with multilateral stakeholders.

[2] The *GFSR* is a semi-annual report by the IMF's Monetary and Capital Markets Department (MCM) that assesses key risks facing the global financial system. The reports carry a disclaimer that the analysis and policy considerations contained therein are those of the contributing staff and should not be attributed to the IMF, its Executive Directors, or their national authorities. However, since the *GFSR* is the main element of the IMF's multilateral financial surveillance, this paper refers to views expressed in the *GFSR* as the IMF's view on financial sector issues.

GFSR chapter, FSAP report, Article IV consultation, Staff Position/Discussion Note, Board paper, or other outlet, major IMF documents did not emphasize issue A prominently enough.

6. The remainder of this paper is organized into three sections. Section II traces the response of the IMF through the end of 2009, and Section III evaluates the response from 2010 through 2012. By organizing these sections chronologically, the paper exemplifies the evolving response of the IMF to the crisis. Section IV assesses the IMF's advice to the United States, as articulated in the U.S. FSAP and Article IV consultations. Annex 1 provides background on the institutional reforms related to IMF financial surveillance work during this period. Annex 2 reviews a sample of FSAP financial stability assessments for six systemically important financial centers.

II. THE RESPONSE TO THE CRISIS: 2008–09

7. This section examines the IMF's financial sector policy advice during the period from 2008 through the end of 2009. It describes the IMF reaction in 2008 as global financial conditions were rapidly deteriorating, and reviews the Fund's diagnosis of what precipitated the crisis and its policy recommendations. It then assesses weaknesses with the Fund's diagnosis of the causes of the crisis and deficiencies in its policy recommendations.

8. Once the financial crisis unfolded, the IMF was among the first to recognize the need for quick action to address the deteriorating solvency of major financial institutions. By early 2008, the *GFSR* began issuing strong warnings that growing financial system fragilities threatened national and global economic stability. The Spring 2008 *GFSR* criticized major economies for not recognizing and confronting potential solvency problems more rapidly and it presciently warned that the financial crisis would trigger a more severe and enduring economic contraction than recessions induced by nonfinancial factors (IMF, 2008a). The Spring 2009 *GFSR* recommended aggressive government interventions—with the injection of public funds if necessary—to address solvency concerns. It recommended that official supervisors identify weak but viable financial institutions, guarantee the debts of those institutions, and recapitalize those financial institutions if private capital was not forthcoming.[3]

9. The Fund did not lose sight of the major medium term challenges to global financial stability even as the immediacy of the global financial crisis consumed the attention of the

[3] The Spring 2009 *World Economic Outlook (WEO)* and *GFSR* stressed that, "The critical underpinning of an enduring solution must be credible loss recognition on impaired assets. To that end, governments need to establish common basic methodologies for a realistic, forward-looking valuation of securitized credit instruments. Various approaches to dealing with bad assets in banks can work, provided they are supported with adequate funding and implemented in a transparent manner" (IMF, 2009a). The IMF's focus on dealing with solvency problems was backed up by its estimate of losses in the U.S. banking system: by Spring 2009, the IMF was predicting a $2.7 trillion write-down on U.S. originated assets held at banks, with the total write-down possibly as high as $4 trillion.

international community. For example, the *GFSR*s continued to highlight the long-run challenges of building healthy financial systems and they also provided rigorous analyses of nonbank financial institutions and financial markets more generally—the Spring 2009 *GFSR* provided a detailed assessment of insurance companies and pension funds and the Fall 2009 *GFSR* examined securitization and covered bonds.

A. Diagnosis of the Crisis Causes

10. Starting in early 2008, a number of staff papers and reports provided diagnoses of the causes of the crisis that laid the foundation for the Fund's ongoing response.[4] In a paper prepared for the Board on "Initial Lessons of the Crisis" (IMF, 2009c), Fund staff highlighted inadequacies in the following areas: international surveillance of risks; adoption of consistent and sound regulatory and supervisory practices across countries; pooling of official resources to address liquidity and solvency problems across borders, and multilateral coordination of policies. This paper set the tone for subsequent views expressed by Fund staff in bilateral and multilateral surveillance reports.

11. *Market discipline.* The diagnosis was that market discipline had failed and that this failure had facilitated the emergence of bubbles in various financial products and assets around the world. As the financial system developed new financial instruments, investors did not adequately assess the riskiness of these products. Rather, markets simply relied on the assessment of credit rating agencies. IMF (2009c) argued that part of the problem was that investors and regulators did not understand the growing conflicts of interest in credit rating agencies, as generous fees for rating structured products optimistically lowered ratings standards. It also stressed that many institutions were so big and so interconnected that investors felt that the authorities would not allow such institutions to fail, which also hindered market discipline.

12. *Regulatory perimeter.* IMF (2009c) stressed that the regulatory apparatus did not extend sufficiently broadly to cover the shadow banking system and some rapidly growing financial products and markets. More specifically, the regulatory perimeter did not expand with financial innovation. For example, the explosion in the size—and hence in the systemic risk—of the over-the-counter derivatives market in the United States was not matched by an effective extension of regulation to ensure that these markets are sound and that clearance occurs securely. Similarly, the rapid increase in the importance of nonbank financial institutions, including hedge funds, private equity funds, and some affiliates of major investment banking houses seemed to have occurred outside of the perimeter of core regulatory and supervisory systems.

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[4] See, for example, IMF (2008b, 2009b, 2009c, and 2009d).

13. *Information and resources.* IMF (2009c) stressed that deficiencies in the resources, information, and power of official agencies helped cause the crisis. For example, it noted that insufficient regulatory authority to intervene in some financial institutions allowed problems to fester, with adverse ramifications on financial stability. And it noted that regulatory gaps limited the availability of information to regulators, so that they were not sufficiently aware of and hence did not respond aggressively to growing problems.

14. *Policy coordination.* According to IMF (2009c): "This crisis was a story of fragmented surveillance in silos of expertise; of a policy debate dispersed in numerous fora (BIS, Gs, FSF, IMF); of limited collaboration among national financial regulators; of ad-hoc bilateral, regional, and multilateral facilities to address financing and liquidity needs; and of an overall failure to engage key decision-makers around the world." Fragmented voices across an array of international institutions about growing fragilities were not centralized and powerful enough to spur policy action. Other Fund documents (e.g., IMF, 2009b) also noted that the absence of adequate mechanisms for coordinating a multilateral response hindered efforts to address the crisis effectively, even when national authorities recognized the risks, and that the machinery of international financial organizations was ineffective in inducing the necessary collaboration and coordination that would trigger the adoption of best practices in financial regulation and supervision.[5]

B. Core Policy Recommendations

15. Based on its diagnosis of the causes of the crisis, the IMF advanced recommendations on four interrelated themes aimed at improving the functioning and stability of financial systems over the medium term.

- First, to reduce market failures and enhance market discipline, the IMF pushed for greater transparency and information disclosure. The Spring 2009 *GFSR* urged national authorities to enact reforms that would enhance the quality and quantity of information; it also highlighted the importance of reforms that would make it easier for private investors to exert sound governance over financial institutions, though the recommendations on enhancing governance were much more vague than those concerning the disclosure of information.

[5] The Group of Twenty (G20) subsequently played a key role in responding to the global financial crisis. Following the first G20 Leaders Summit in November 2008, working groups were set up on enhancing sound regulation and strengthening transparency; reinforcing international cooperation and promoting integrity in financial markets; reforming the IMF; and reforming the World Bank and multilateral development banks. The IMF was represented in all four working groups. The 2009 G20 (London) Summit established the Financial Stability Board (FSB) to monitor and make recommendations about the global financial system. The IMF is a member of the FSB, where it is responsible for the analysis of macro-financial linkages. See Annex 1.

- Second, the IMF pushed to expand the purview of regulatory and supervisory oversight agencies. The Fall 2009 *WEO* and *GFSR* stated that " … the perimeter of regulation needs to be broadened and made more flexible, covering all systemically important institutions alongside incentives to preclude further buildups of institutions currently considered 'too big or too connected to fail'" (IMF, 2009e).

- Third, the IMF called on countries to strengthen the capacity and mandate of regulatory and supervisory authorities. The Spring 2008 *GFSR* called for greater supervisory and regulatory power and control over financial institutions and the centralization of supervisory and regulatory power at the national level (IMF, 2008a). These policies reflected the Fund's assessment that supervisors and regulators did not have sufficient resources, authority, and power to identify and address systemic risk within and across national borders or to evaluate risk management systems within financial institutions; or the ability to insist on greater capital and liquidity buffer—or on other actions—to mitigate threats to financial stability. The report stressed the benefits of having one national agency supervise and regulate financial institutions. In pushing for greater supervisory power, it stressed that "[s]upervisors must be provided with sufficient legal powers and resources" (IMF, 2008a).

- Fourth, the IMF encouraged greater international collaboration and coordination among regulatory authorities to address risks in global financial institutions more effectively. Fund staff stressed that financial institutions operated across borders and that these cross-border institutions would be more effectively regulated and supervised through coordinated actions. For example, the Fall 2008 *GFSR* noted the need for "[f]urther international work … to address the difficulties of dealing with cross-border firms under existing bankruptcy laws and insolvency regimes" and for "more robust information-sharing arrangements and mechanisms for rapid cooperation" (IMF, 2008c). The 2009 *GFSR*s also emphasized that international capital mobility further highlighted the importance of collaboration and coordination of financial regulation and supervision at an international level.

C. Shortcomings in the IMF Response: 2008–09

16. There were, however, several interrelated shortcomings with the IMFs financial sector policy advice during the first few years of the crisis. Most of these appear to stem from an inadequate appreciation of the role of incentives and an incomplete diagnosis of the crisis.

Insufficient emphasis on incentives

17. There was too little discussion in the *GFSR*s of how specific recommendations would shape the incentives of financial market participants. For example: the *GFSR* pushed for the recapitalization of banks without paying sufficient attention to the resultant moral hazard problems; the *GFSR* pushed for greater supervision and regulation of financial institutions

without paying sufficient attention to how this could influence the incentives of private investors to monitor and discipline banks; and the *GFSR* pushed for granting greater power to official supervisory agencies without paying sufficient attention to the governance of those agencies. As a final example, while the *GFSR* noted that authorities were often unwilling to impose losses on the uninsured liability holders of banks because of fears of systemic risk, it did not adequately discuss the implications of this policy on the incentives shaping the decisions of bank executives and hence on the design of financial policies. The analyses in *GFSR*s and relevant staff research too often ignored the potential negative impact of their recommendations on the incentives faced by people actually making asset allocation decisions.[6]

Over-emphasis on market failures

18. The IMF reports reviewed for this paper put too much emphasis on market failures as opposed to government failures in triggering a bubble in asset markets. Indeed, the reports sometimes went too far in attributing financial sector problems to market failures, specifically the failure of market discipline. For example, IMF (2009c) stressed that market discipline failed because investors relied too heavily on credit rating agencies rather than conducting their own due diligence. While this is true, it is also true that regulators around the world required banks, insurance companies, investment banks, brokerage firms, mutual funds, and pensions to use those ratings. Thus, the reliance on credit rating agencies by private investors reflected (at least partially) those policies rather than a failure of the market per se. IMF (2009c) also argued that market discipline was eroded by the "too-big-to-fail" nature of large interconnected financial institutions. But the reduced incentives for monitoring these institutions were not a sign of market failure; they emerged because of the authorities' inability to commit credibly to not bail out large financial institutions. The issue is that IMF assessments too often took a narrow, particular perspective, rather than providing a more balanced, complete assessment of market failures and incentives. This led to incomplete analyses and recommendations.

19. The Fund did not provide sufficient guidance on how to address failures of market discipline. IMF (2009c) called for greater information disclosure to improve market discipline. But the Fund could have also examined how different corporate governance systems (corporate law, shareholder protection laws, listing requirements, and regulation) could enhance market discipline of banks. It could have examined how the ownership structure of banks shaped risk-taking incentives and considered what policy changes might foster ownership structures that would provide greater discipline over bank executives. In

[6] For example, the economics of moral hazard suggests that as official supervisory and regulatory agencies take on more responsibility for monitoring financial institutions and markets, private investors may reduce their own due diligence and monitoring. As another example, the policy of bailing out banks may have fostered less market discipline and a greater too-big-to-fail problem by not making private investors take more financial responsibility for their decisions.

general, the Fund could have provided more helpful suggestions on the legal and institutional reforms necessary to enhance the governance of financial institutions. Finally, the Fund largely failed to address how its own policy recommendations, if implemented, would shape market discipline and the resource allocation decisions of financial institutions.

20. By overemphasizing the role of market failures in triggering the financial crisis and by not providing a sufficiently clear plan for how to address those market failures, the Fund focused its policy advice excessively on empowering centralized and internationally coordinated regulatory and supervisory agencies. And, yet, the Fund paved this path without providing adequate evidence of the efficacy, or risks, of this policy strategy.

Inadequate analysis of governance problems

21. Although the *GFSR* recognized the importance of "smarter requirements combined with better funded supervisors, independent of industry and political pressures" (IMF, 2009g), it did not devote sufficient attention to examining supervisory and regulatory system failures, identifying the causes of those failures, and providing guidance on how to improve the governance and performance of those official bodies. This is especially noteworthy because key regulatory and oversight entities and officials in countries at the epicenter of the global financial crisis have provided considerable evidence suggesting that governance problems contributed to the crisis;[7] while the Fund's policy recommendations focused on granting those same agencies greater powers. The IMF could have done more to examine the governance mechanisms of supervisory agencies around the world with a view to drawing lessons for how

[7] For example, in a 2010 report on the Irish banking crisis, the Governor of the Central Bank of Ireland concluded that two of the root causes were "a regulatory approach which was and was perceived to be excessively deferential and accommodating; insufficiently challenging and not persistent enough" and "an unwillingness … to take on board sufficiently the real risk of a looming problem and act with sufficient decision and force to head it off in time" (Central Bank and Financial Services Authority of Ireland, 2010b), which is also emphasized in Central Bank and Financial Services Authority of Ireland, 2010a. As a second example, looking back at the build-up to the financial crisis in the United Kingdom, the House of Commons concluded that the failure of Northern Rock was a clear case of regulatory failure: "The FSA [Financial Services Authority] did not supervise Northern Rock properly. It did not allocate sufficient resources or time to monitoring a bank whose business model was so clearly an outlier" (U.K. House of Commons Treasury Committee, 2007–008). The U.K. Treasury report on the crisis stated, "the Government is clear that the financial crisis was not caused by a lack of powers with the UK's regulatory regime" (U.K. Treasury 2009). Other reports by official entities in the United Kingdom (U.K. Financial Services Authority, 2009; U.K. Financial Services Authority Internal Audit Division, 2008) further emphasize this perspective. As a third example, across several supervisory and regulatory bodies in the United States, officials recognized that their policies were destabilizing the financial system, had the power to change those policies, and decided not to do so. Section IV examines this in greater detail, but it is illuminating to note here that the Securities and Exchange Commission's (SEC) own Inspector General stressed that the SEC identified the core problems, had the legal authority to address growing fragilities in investment banks, and did not respond. Similarly, as discussed in greater detail in Section IV, the Federal Deposit Insurance Corporation (FDIC) through its inspections uncovered problems in about 80 percent of the banks that failed during the financial crisis years before the banks failed, but the FDIC chose not to act in 95 percent of those cases (computed from the U.S. Federal Deposit Insurance Corporation, 2008–011).

to improve the structures and incentives of such agencies.[8] The point is that the standard of assessment at the IMF was too narrow and therefore provided incomplete analyses of financial sector challenges. It did not adequately consider important alternative views on factors contributing to the crisis.

Too much deference to Basel II framework

22. Both before and for two years following the crisis, the IMF pushed for greater international coordination of policies and standards around the Basel II agreement. Although international coordination often plays a salutary role in encouraging good policies, it can foster, rather than discourage, excessive risk taking.[9] While there were some debates within the IMF about the wisdom of aspects of Basel II, most of the staff and the Board considered that it was an improvement over the existing framework. The 2008 *GFSR*s provided a generally positive assessment of the key elements of Basel II, stressing that it would more appropriately align capital requirements with risk than Basel I by using better measures of and provisions for risks emanating from structured instruments, off-balance-sheet items, and contingent liquidity risks (IMF, 2008a and 2008c). These reports also noted that the Basel II capital requirements could have pro-cyclical effects since banks would be forced to raise capital during economic downturns and did not adequately close regulatory arbitrage between banks and nonbank financial institutions.[10] But the Fund did not provide a broader assessment of the Basel approach and its role in mitigating, or facilitating, systemic risk until later (see Section III).

23. A more rigorous critique by the Fund of the Basel II agreements in 2008–09 might have accelerated and shaped beneficial reforms. Rather than embracing consistency and cooperation with the Basel Committee, the Fund could have provided an independent assessment. For example, the Fund could have used criticisms by national authorities to

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[8] A 2009 IMF Working Paper (Seelig and Novoa, 2009) discussed the findings of a 2007 IMF survey of governance practices in 140 supervisory agencies in 103 members on supervisory remuneration practices and ability to hire and set staffing and salary levels. These findings did subsequently percolate into more prominent Fund research in 2010 (see Section III).

[9] For example, the Basel Committee recommended that banks should be forced to hold safer assets or more regulatory capital when holding mortgages than when holding highly rated securitized bundles of mortgages. (The reasoning for having lower capital charges for securitized assets was that the securitized bundle was a presumably more diversified portfolio of mortgages. Plus, a high rating from credit rating agencies put the stamp of safety on these assets.) The result was that banks around the world faced higher capital charges for holding mortgages, so the Basel regulations effectively encouraged banks to quickly sell off the loans. This reduced the incentives of banks to carefully screen and monitor borrowers.

[10] The Fall 2009 *GFSR* provided a detailed discussion of capital requirements, but it only tangentially related the discussion to Basel recommendations and did not discuss appropriate capital regulatory requirements within the context of an overall approach to regulating banks. In addition, a chapter in the same publication pointed to shortcomings in the Basel II framework in regulation, enforcement, and disclosure in securitization markets.

address weaknesses with the Basel II approach to bank regulation and supervision and to push reforms.

Over-optimism

24. The Fall 2009 *WEO* and *GFSR* proclaimed that the global economy was expanding again and financial conditions had "improved markedly," so much so that the key issues facing monetary policymakers were "when to start tightening and how to unwind large central bank balance sheets" (IMF, 2009e). Although the Fund identified many of the core financial weaknesses in Europe by the end of 2009, it remained more positive about Western Europe's banks than would ultimately prove warranted: "Western European banks appear able to absorb deteriorating credit conditions in emerging Europe, but may lack sufficient capital to support a recovery in the region" (IMF, 2009f). To be clear, the IMF did not call for the removal of extraordinary support for the financial system; it just warned of the risks of maintaining this support. But the ongoing problems in the United States and the emerging problems in Europe suggested that the discussion in the fall of 2009 about tapering was premature.

III. The Response to the Crisis: 2010–12

25. This section considers the IMF's overall financial sector policy advice during the period 2010 through 2012.

A. The Overall Response

26. Over the period from 2010 through 2012, the IMF improved its recommendations on financial policies from those advanced in 2008–09 by focusing more on incentives and providing more detailed advice on a wider array of financial policy issues. Moreover, while focused on threats to global financial stability, the IMF continued to provide analyses of financial sector issues and developments around the world and in particular in emerging markets. For example, the *GFSR*s provided analyses of international capital flows, the Chinese banking system, and Asian residential markets.

More attention to incentives

27. The Spring 2010 *GFSR* provided more nuanced perspectives of the impact of financial regulatory policies and supervisory practices on the incentives of financial institutions and more detailed advice on how to improve micro- and macro-prudential regulation. It provided some guidance on how to address factors distorting incentives within systemically important financial institutions and regulatory agencies. These recommendations included (i) tougher supervisory standards for too-important-to-fail (TITF) institutions, including tougher capital, liquidity, and risk management requirements; (ii) the design of mechanisms to intervene and resolve troubled TITF institutions so that they would no longer be TITF; (iii) additional capital charges so that TITF institutions would pay for their contributions to systemic risk; (iv) limits on the size of financial institutions to confine them to a manageable size for both

crisis management and to foster competition; and (v) restrictions on activities to limit risk taking (IMF, 2010a). Thus the IMF explicitly emphasized the importance of addressing the distortionary incentives produced by TITF and provided detailed analyses of how to address these incentive problems, although there are obvious questions about the efficacy of these proposed remedies to the TITF problem.

28. The Fall 2010 *GFSR* also outlined policies to improve the functioning of credit rating agencies and advanced three policies to mitigate the adverse side effects that ratings and rating agencies may have on financial stability (IMF, 2010g). Unlike past discussions, these perspectives emphasized incentives. In particular, the Fund stressed the following: "First, regulators should remove references to ratings in their regulation where they are likely to cause cliff effects, encouraging investors to rely more on their own due diligence … Second, to the extent that ratings continue to be used in the standardized approach of Basel II, credit rating agencies should be overseen with the same rigor as banks that use the internal-ratings approach—credit metrics reported, ratings models backtested, and ex post accuracy tests performed … Third, regulators should restrict "rating shopping" and conflicts of interest arising from the "issuer pay" business model by requiring the provision of more information to investors" (IMF, 2010d).

29. Indeed, the 2010 *GFSR*s provided detailed analyses and recommendations on a range of regulatory issues. For example, the Spring 2010 *GFSR* provided excellent analyses of different prudential supervisory approaches to reduce systemic risk; different methods for measuring the systemic importance of banks; the appropriate regulatory architecture for dealing with systemic risk; the potentially helpful role of contingent capital in reducing systemic risk; and how to make the over-the-counter derivatives market safer (IMF, 2010b and 2010c). These analyses were more grounded in a perspective of finance that recognizes that official actions materially influence the incentives of decision makers in financial markets than the initial response of the IMF to the crisis. The Fall 2010 *GFSR* offered detailed guidance on how to mitigate systemic liquidity risk through improved micro-prudential regulation and central bank policies, and the types of data that official agencies should collect to monitor liquidity risk (IMF, 2010f).

More critical of Basel II framework

30. The Fund also became more critical in its assessments of the Basel recommendations. For example, the Spring 2010 *GFSR* noted, "In addition to the higher levels of better quality capital for internationally active banks proposed by the Basel Committee, additional requirements could be calibrated to penalize firms' attributes that make them TITF and thus internalize the costs these institutions impose on the system" (IMF, 2010a). And Chapter 2 of the same publication illustrated how to operationalize systemic-risk-based capital surcharges (IMF, 2010b).

31. This independent voice on bank regulation and supervision continued in 2011. The Spring 2011 *GFSR* noted that based on its analysis, "while helping to raise liquidity buffers, Basel III will be unable to fully address the systemic nature of liquidity risk" (IMF, 2011a). The Spring and Fall 2011 *GFSR*s presented alternative techniques for measuring systemic liquidity risk and developing macro-prudential tools to mitigate such risks (IMF, 2011b and 2011c). This assessment by the Fund was an important mechanism for pushing the debate forward on substantive regulatory and supervisory issues.

More calls for empowering supervisory and regulatory agencies

32. The IMF further emphasized the desirability of granting greater powers, authority, and resources to supervisory and regulatory agencies. For example, two MCM Staff Position Notes stressed that part of empowering supervisory and regulatory officials involved making them more intrusive, including giving them the resources, information, and authority to identify and address systemic risks and the ability to force financial institutions to adjust their behavior (Viñals and Fiechter, 2010; Viñals and others, 2010). This emphasis reflected the view that financial sector weaknesses often reflected deficiencies in the authority of regulatory agencies to alter the behavior of financial institutions.

More analysis of governance issues

33. The Fund delved a little more into governance issues. The Spring 2010 *GFSR* discussed regulatory forbearance and the governance of central counterparties in the over-the-counter derivatives market (IMF, 2010b and 2010c).[11] The Fund also emphasized the need for greater supervisory and regulatory independence. Viñals and others (2010) called for each supervisory agency to have access to adequate funding arrangements that would enable it "to make budgetary, staffing, and operational and enforcement decisions without necessitating it to be beholden to any political or commercial interests." A review of financial system stability assessment (FSSA) reports for a few systemically important financial centers found greater discussion of the governance of supervisory and regulatory institutions and some guidance on how to improve the governance of these agencies (see Annex 2).[12]

[11] The Fall 2010 *GFSR* mentioned, with respect to U.S. Government Sponsored Entities associated with housing finance, that "future regulation of any successor bodies needs to be independent of political lobbying" (IMF, 2010e).

[12] For example, the 2012 FSSA for France noted that cross-Board memberships among financial authorities could also blur accountabilities and it recommended, inter alia, that: the Autorité de Contrôle Prudentiel (ACP) be given powers to assess the suitability of Board members and to suspend/dismiss them; ACP meetings include independent Board members and ACP assessments of governance and effectiveness be enhanced; participation of the Ministry of Economy, Finance, and Industry (MINEFI) in the ACP college be altered and MINEFI right of reconsideration to systemically important issues be limited; and periodic formal and public review by the ACP of its resource needs be conducted (IMF, 2012c). The 2011–12 FSSA Update for India noted a "lack of de jure independence … rendered more challenging by the intricate relationship with state-owned supervised entities and their business decisions" and called for, inter alia, greater certainty regarding the independence of

(continued…)

More forceful calls for reforms

34. Financial stability assessments were made mandatory by the Fund in 2010 for jurisdictions with systemically important financial sectors (see Annex 1). Before 2010, all FSAPs were voluntary, and as a consequence, there was no financial stability assessment for the United States until after the global financial crisis. It is impossible to know what the impact of an FSAP for the United States ahead of the crisis would have been. But it is possible that in the process of preparing such an assessment, the U.S. authorities or the FSAP team may have uncovered some of the issues that eventually triggered the crisis (see IEO, 2011). Section IV discusses the 2010 U.S. FSAP in greater detail. A review of a sample of mandatory financial stability assessments found that their recommendations were reflected in the corresponding Article IV reports, and that subsequent Article IV consultations followed up on the issues raised in the FSAP financial stability assessment (see Annex 2).

35. The *GFSR*s pointed out that many national authorities had not implemented the regulatory and supervisory reforms advanced by international agencies.[13] By publicly identifying the lack of progress on many financial regulatory and supervisory reforms in particular countries, the Fund focused international attention on crucial financial stability issues that could undermine the effective operation of the global financial system in the future.

36. The *GFSR*s also emphasized the desirability of greater international collaboration and coordination under the auspices of the Financial Stability Board in selecting and implementing regulatory and supervisory policies. The Fall 2010 *GFSR* stressed the need for countries to "suppress domestic interests in favor of a more stable and better functioning global financial system," warning that "[i]n the absence of such progress, regulatory inadequacies will continue for some time, increasing the chances of renewed financial instability" (IMF, 2010d). The Spring 2012 *GFSR* repeated the call to countries to adhere to their international commitments, noting that strong multilateral commitment was "key to ensuring the credibility of the reform agenda and avoiding regulatory arbitrage" (IMF, 2012a).

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the Reserve Bank of India (RBI) by removing impeding provisions from related acts; greater clarity regarding the role of the RBI nominee director in the public banks; clear specification in the law of the reasons for removal of the head of the supervisory agency during his/her term; and reconsideration of the strict rotation policies so that staff could build up expertise in banking supervision and regulation (IMF, 2013).

[13] For example, the Fall 2010 *GFSR* noted that, "Much of the proposed financial reform agenda remains unfinished. International rule-making bodies have made progress to identify the most egregious failings of the global financial system in the run-up to the crisis, but their member countries have yet to agree on many of the details of the reforms. Dealing with too-important-to-fail entities, strengthening supervisory incentives and resources, and developing the macro-prudential framework are still under discussion" (IMF, 2010d).

B. Critique

37. While better than the response to the crisis in 2008–09, the Fund's analysis still focused too much on putting forward specific rules and not enough on how the totality of those rules would influence the incentives facing regulators, bank executives, and other financial market participants.

38. The IMF appropriately recognized the interconnections between banking system woes and sovereign debt challenges in Europe,[14] but during the early phase of the financial turmoil in Europe, it did not aggressively trumpet the severity of emerging risks or put strong pressure on European officials to reform their policies in specific ways. Although the Fund warned that "continuing forceful policy measures [were] needed to remain firmly on track toward building financial system resilience," it did not provide much guidance on precisely what those forceful policy measures should be in 2010 (IMF, 2010d). Neither did the Fund sufficiently examine the degree to which deficiencies in the financial regulatory and supervisory architecture of Europe impeded financial system efficiency and stability. At the time, Europe was still in the formative stages of constructing pan-European institutional structures for addressing banking system distress and IMF reports could have provided useful input for the construction of those institutions and policies.[15]

39. Although the 2012 Euro Area Article IV staff report stressed that an effective banking union that built the necessary institutions to foster an efficient and stable pan-European financial system would include three key elements: (i) a pan-European deposit guarantee scheme that would boost depositor confidence in countries with suspect fiscal resources, (ii) a pan European bank resolution mechanism that would have the legal authority and access to pan-European fiscal resources to address weak institutions, and (iii) an area-wide supervisory mechanism to assess the systemic risk of financial institutions (IMF, 2012b), the report provided insufficient analyses of how the banking union would be effectively governed, i.e., what arrangements would make executives within the banking union's supervisory and regulatory apparatus accountable and responsive to the public at large. More recently, however, in the context of a more detailed discussion on the construction of a

[14] For example, the Spring 2010 *GFSR* noted, "Due to the close linkages between the public sector and domestic banks, deteriorating sovereign credit risk can quickly spill over to the financial sector. On the asset side, an abrupt drop in sovereign debt prices generates losses for banks holding large portfolios of government bonds. On the liability side, bank wholesale funding costs generally rise in concert with sovereign spreads, reflecting the longstanding belief that domestic institutions cannot be less risky than the sovereign. In addition, the perceived value of government guarantees to the banking system will erode when the sovereign comes under stress, thus raising funding costs still higher" (IMF, 2010a). The report also emphasized that capital market interconnectedness could transmit sovereign and banking system shocks internationally.

[15] Later, in 2012, the Euro Area Article IV staff report noted that the European Monetary Union lacked institutional mechanisms to address the vicious connections among sovereign debt markets, bank solvency, and the real economy that fostered financial and economic fragility in the area. The report also provided guidance on the institutional and policy reforms necessary to address the sources of systemic instability.

banking union for the euro area, IMF staff did discuss issues of governance and accountability for the new supervisory functions of the European Central Bank, focusing in particular on design issues relevant for the envisaged banking union (see, for example, Goyal and others, 2013, and Tressel and others, 2013).

40. The Fund could have gone further in analyzing and proposing strategies for improving the governance of financial supervisory and regulatory agencies. Although Viñals and Fiechter (2010) discuss the challenges associated with the governance of financial supervisory and regulatory agencies, the insights from this research paper were not fully integrated into the Fund's flagship publications such as the *GFSR*, or into major policy papers such as those developing proposals for governance reform. This paper did not trigger much follow-up work examining what went wrong in individual countries, what worked in other countries, or how to provide countries with detailed, rigorous guidance on how to improve their governance systems. While the Fund continued its calls that countries grant greater resources and power to financial supervisory and regulatory agencies, it provided little analysis and guidance to countries on how to enhance the performance of those agencies in the reports reviewed for this study.

41. Mandatory financial stability assessments are a potentially useful tool for assessing risks to financial and macroeconomic stability but there is still room for improvement. A review of six mandatory financial stability assessments (Annex 2) found the technical quality of the reports to be sound and the advice provided to be candid and practical on the whole. However, some of the advice did not adequately consider country-specific factors i.e., they did not provide a rigorous assessment of the interplay of countries' institutional characteristics and particular regulations. For example, none of the FSSAs of countries in which state-owned banks play a dominant role assessed how such ownership will influence the regulation and supervision of banks or the Fund's recommendations concerning the governance of those official entities. While recognizing that standards are meant to be uniform, the Fund is uniquely positioned to move much farther away from a "one size fits all approach" and thereby provide more useful assessments. Some important themes were omitted—for example, none of the FSSAs reviewed provided in-depth qualitative assessments of how distorted incentives arising from financial policies such as implicit and explicit government guarantees shaped financial and macroeconomic stability.

IV. Response to the Financial Crisis in the United States

42. The IMF's perspectives on the U.S. financial system, as articulated in the U.S. FSAP assessment and U.S. Article IV consultations, can be considered in two parts: the headline messages in the executive summaries and the detailed analyses in the texts. This section first evaluates the IMF's headline response to the U.S. financial crisis and then assesses the more rigorous, critical examinations contained in the body of major IMF documents.

A. Headline Messages

43. The IMF's headline messages about the causes of the U.S. financial crisis were largely consistent with the U.S. authorities' views. The IMF stressed that the core causes of the U.S. financial crisis were: (i) a fragmented regulatory system in which the diffusion of power across agencies undermined "efficiency, effectiveness, transparency, and accountability" (IMF, 2010h); (ii) an insufficiently strong regulatory and supervisory system that was riddled with gaps in which official agencies did not have clear powers of oversight with respect to some important markets (e.g., over-the-counter derivatives, unregistered structured finance securities, and off-exchange trading platforms) and financial institutions (i.e., "shadow banking"); (iii) the absence of a centralized entity with responsibility and authority to monitor all systemically important financial institutions (SIFIs) and compel such SIFIs to limit their risk taking; (iv) the lack of clear legal authority to intervene in and resolve large, complex financial institutions to reduce threats to systemic stability; and (v) the poorly designed policies associated with the allocation of credit through the Government Sponsored Entities (GSEs), which played a leading role in fueling the housing crisis that triggered the broader financial system stresses.

44. With respect to addressing these factors, the Fund embraced the core U.S. response—the Dodd-Frank Act—emphasizing: (i) greater consolidation of financial regulation power; (ii) widening the perimeter of financial regulation to encompass all major markets and financial institutions; (iii) the creation of a centralized entity charged with defining and monitoring all systemically important institutions; (iv) the granting of greater legal authority to regulatory entities to reduce defects in resolution mechanisms and empower authorities to intervene in all systemically important financial institutions; and (v) improvements in policies associated with housing finance to reduce future destabilizing distortions.

45. Unsurprisingly, therefore, the IMF provided an enthusiastic assessment of the overall U.S. response to the crisis. For example, in a statement reflecting the headline themes of the FSAP, the IMF noted, "the U.S. policy response was bold and aggressive and [had] helped restore stability" (IMF, 2010h). Indeed, and partially at odds with its conclusions about weaknesses in the U.S. regulatory apparatus, the Fund praised the ability of U.S. financial regulatory authorities to coordinate effectively in response to the crisis: "An aggressive policy response helped avert the collapse of the U.S. financial system. Coordinated actions were taken by the Treasury, the Fed, the FDIC, and other public bodies" (IMF, 2010h).

46. The IMF could have provided a more complete and critical investigation of the causes of the U.S. financial crisis, the appropriate response, the actual response, and the long-run ramifications of the response. The United States used massive injections of public resources to secure the operations of the largest banks, the largest investment banks, and the largest insurance company without forcing uninsured debt holders and equity holders to pay for these subsidies and without holding executives fully accountable for the actions that

transpired under their leadership. Why did the Fund not provide a more frank assessment of the long-run incentive problems created by those policies?

47. The U.S. FSAP could have looked deeper into problems with the governance of, and decisions made by, supervisory and regulatory agencies in the United States.

- An important contributor to U.S. financial system fragility was the reduction in bank capital through the purchase of credit default swaps. Regulators had information on the use of credit default swaps to reduce regulatory capital, but chose not to intervene (Tett, 2009). The Fund could have investigated this behavior by the major U.S. banks and why U.S. regulators decided not to address this issue.

- The five major U.S. investment banks, which had combined assets of over $4 trillion at the start of 2008, all either failed or received official assistance in 2008. The IMF could have provided a more detailed assessment of what went wrong in the supervision and regulation of these five banks.[16]

- The Federal Deposit Insurance Corporation (FDIC), which regulates and supervises deposit-taking banks, was required by law to take prompt and corrective action when it discovered problems with the banks that it insured, yet it often did not do so (U.S. Federal Deposit Insurance Corporation, Office of Inspector General, 2008–011). The IMF could have looked more closely into the actions of the FDIC.

48. The IMF could have provided more convincing evidence that regulatory and supervisory fragmentation and regulatory and supervisory gaps were primarily to blame for financial system fragility in the United States. After all, countries that had a single financial regulator—the United Kingdom and Ireland, for instance—also experienced large financial disruptions. Overall the Fund focused too narrowly on these factors to the neglect of other important ones such as the governance and performance of the functioning supervisory and regulatory authorities.

B. Detailed Analyses

49. The U.S. FSAP and Article IV reports contained more nuanced, critical, and insightful assessments of U.S. financial sector policies, although these critiques were not featured as prominently as one might have expected given that the United States was the epicenter of the global financial crisis. Arguably, this made these analyses less impactful on member countries.

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[16] The Securities and Exchange Commission's Office of Inspector General (2008) and the Valuckas (2010) report on the failure of Lehman Brothers provide evidence that the Securities and Exchange Commission knew about the exploding risks in Lehman Brothers and chose not to do anything.

50. Within the U.S. FSAP documents, the IMF provided helpful critiques and evaluations of U.S. policies. For example, the FSSA report noted that the United States had done little to reduce regulatory fragmentation—"which is a particular concern given the complexity, size, and interconnectedness of the U.S. financial system" (IMF, 2010h). The FSSA report also pointed out that funding arrangements for the SEC, the Commodity Futures Trading Commission, and state insurance regulators were subject to unhealthy political pressures that could limit supervisory effectiveness. It also stressed the incentive problems created by massive government interventions to protect financial institutions from failure. More, and more prominent placement, of these critiques would have produced a more useful assessment of financial sector stability issues—for the United States and other countries.

51. In subsequent years, IMF Article IV consultations also raised substantive concerns about the implementation of reforms by the U.S. authorities. For example, the IMF expressed repeated concerns that key elements of the Dodd-Frank Act had not been implemented. The 2011Article IV consultation was also skeptical about whether the U.S. authorities had developed resolution plans ("living wills") for systemically important financial institutions that could actually reduce systemic risks and strengthen crisis resolution (IMF, 2011d). This is a serious concern because the creation of credible resolution plans is the core mechanism for re-introducing market discipline into the governance of large, complex financial institutions.

V. Conclusion

52. Once the IMF recognized the severity of the crisis in 2008, it provided detailed analyses of a wide array of financial sector issues. While many countries treated growing financial system stresses purely as liquidity problems, the *GFSR* pushed national authorities early in 2008 to acknowledge that solvency problems also threatened major financial intermediaries and systems and, as the global financial crisis intensified and spread, the IMF developed and articulated a plan for addressing financial system fragilities. While timid in critiquing Basel II during the early years of the crisis, the Fund ultimately provided rigorous assessments of Basel II, arguably helping to guide improvements in Basel policies. On the details associated with rules, regulations, and the operation of particular markets and instruments, the Fund provided outstanding analyses.

53. In terms of its broad, strategic diagnoses of the causes of the crisis and its resultant policy advice, however, there were material elements that could have been done better—and that can still be addressed going forward. The IMF overemphasized the role of market failures, fragmented regulatory institutions, and insufficient supervisory and regulatory authority in causing the crisis. And it too often underestimated the roles of flawed policies, poorly functioning supervisory and regulatory agencies, and breakdowns in the governance of those official agencies.

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ANNEX 1. INSTITUTIONAL REFORMS IMPACTING IMF FINANCIAL SECTOR SURVEILLANCE

The IMF was given a greater role in financial sector surveillance as part of the international response to the crisis. Beginning in October 2007, successive International Monetary and Financial Committee (IMFC) Communiqués stressed that "national authorities, standard-setting bodies, the Financial Stability Forum [FSF], the Bank for International Settlements, and the IMF … [had] complementary roles to play in analyzing financial stability issues, helping to identify and address information gaps and providing fora for discussions and actions" (IMFC, 2007); emphasized the importance of "strengthening the Fund's financial surveillance role, including through the Financial Sector Assessment Program, and its capability to identify risks in the future" (IMFC, 2008a); and called on the Fund "given its universal membership, core macro-financial expertise, and its mandate to promote international financial stability—to take the lead, in line with its mandate, in drawing the necessary policy lessons from the current crisis and recommending effective actions to restore confidence and stability [and] to focus discussion, and enhance cooperation, with a wide range of perspectives with the FSF, the G20, and others on this issue" (IMFC, 2008b).[1]

The November 2008 G20 Action Plan to Implement Principles for Reform called on the Fund, in its surveillance reviews of all countries, to "[give] greater attention to their financial sectors" and to "better [integrate] the reviews with the joint IMF/World Bank financial sector assessment programs." It committed all G20 members "to undertake a Financial Sector Assessment Program (FSAP) report." And it mandated the IMF, together with an expanded FSF and other regulators and bodies, to "develop recommendations to mitigate pro-cyclicality;" more broadly it called on "the IMF, with its focus on surveillance, and the expanded FSF, with its focus on standard setting, [to] strengthen their collaboration, enhancing efforts to better integrate regulatory and supervisory responses into the macro-prudential policy framework and conduct early warning exercises" (G20, 2008).

FSAPs

At the bilateral level, the IMF's main instrument for continuous financial sector surveillance of its membership is the Article IV consultation. Participation in the FSAP provides more comprehensive and in-depth assessments than Article IVs, but at multi-year intervals.[2] In conducting an FSAP, the Fund is tasked with the primary responsibility for the Financial

[1] The FSF was convened by the G-7 in 1999 as a forum to bring together national authorities and international bodies responsible for financial stability. In November 2008, G20 Leaders called for an expanded membership of the FSF.

[2] The FSAP was established in 1999 as a joint IMF-World Bank program to assess countries' financial sector vulnerabilities and developmental needs. In advanced economies, FSAPs are the responsibility of the Fund. In all other countries, they are conducted by joint Bank-Fund teams. The analysis of stability issues is the main focus of the Fund, while the Bank covers financial sector development issues. FSAP assessments are conducted by large teams of international experts, take a significant amount of time, and are quite costly.

System Stability Assessment (FSSA) report, which focuses on financial sector vulnerabilities in the participating country.[3] The FSSA report is discussed by the IMF Board alongside the country's regular Article IV consultation report, which is expected to integrate the FSAP findings and analysis. Following the commitment made by the G20 in November 2008, the United States participated in the FSAP for the first time in 2010.

In September 2010, the IMF made it mandatory for 25 jurisdictions with systemically important financial sectors to undergo financial stability assessments under the FSAP every five years (IMF, 2010i).[4] By mid-2014, 24 of the original 25 jurisdictions had undergone financial stability assessments under the FSAP.

In early 2014, IMF Management convened an inter-departmental working group to explore practical proposals to enhance the coverage and depth of analysis of financial sector issues in Article IV consultations. The working group report of June 2014 found that integration of financial sector issues into bilateral surveillance remains a challenge since the range and analytical quality of issues covered varies widely, financial sector issues are often treated as add-ons, and FSAPs are infrequent. Although FSAPs were said to provide detailed insights into financial sector issues, they are too infrequent (especially in non-systemic countries) to be useful for continuous surveillance of macro-financial issues. In addition, FSAPs were said to be heavily skewed toward institutional and micro-prudential issues, which are not necessarily macro-relevant. The working group proposed that the principal responsibility for financial surveillance and macro-financial work at the country level rest with area departments, which would need to build a critical mass of macro-financial economists through actions on hiring and training. The working group's conclusions were largely reflected in the 2014 *Triennial Surveillance Review* (IMF, 2014a).

The 2014 *Review of the FSAP* (IMF, 2014b) proposed to strengthen the systemic risk focus of all components of the FSAP including by introducing a macro-financial approach to

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[3] FSSAs comprise three elements: (i) an evaluation of the main risks to macro-financial stability and their potential impact; (ii) an assessment of the country's financial stability policy framework; and (iii) an assessment of the authorities' capacity to manage and resolve a financial crisis. Detailed assessments of compliance with financial sector standards and codes (including banking supervision, securities regulation, and insurance supervision) and the associated Reports on Observance of Standards and Codes (ROSCs) also form part of the FSAP. Mandatory FSAPs include the financial stability assessment only; other components of the full FSAP such as formal assessments of compliance with financial sector standards and codes and associated ROSCs may be included as necessary, on a voluntary basis.

[4] Australia, Austria, Belgium, Brazil, Canada, China, France, Germany, Hong Kong SAR, India, Ireland, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, Russia, Singapore, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States. The list of jurisdictions for these mandatory assessments was based on the size and interconnectedness of their financial sectors. In December 2013, based on a revised selection methodology, the list of jurisdictions with systemically important financial sectors was expanded to 29, with the inclusion of Denmark, Finland, Norway, and Poland. Both the list of jurisdictions and the methodology for assessing systemic importance are to be reviewed periodically. FSAPs continue to be voluntary for non-systemic jurisdictions.

supervisory standards assessments to enable the assessment effort to focus on the most relevant principles for financial stability. The review also highlighted the continuing tension between the focus of the program on systemically important countries and the needs of non-systemic countries implied by an unchanged resource envelope.

Collaboration with the FSF

Fund staff had been collaborating informally with the FSF and other international bodies since well before 2008.[5] Fund staff participated in FSF working groups, projects and outreach efforts, and contributed to FSF papers and publications; the Fund also staffed a permanent position in the FSF Secretariat. Following the April 2008 FSF report on *Enhancing Market and Institutional Resilience*, the Fund participated in FSF working groups to formulate policy recommendations on bank capital issues, provisioning, and leverage and valuation, together with national authorities, the Bank for International Settlements, and international standard-setting, regulatory, supervisory and central bank bodies, including the Basel Committee, the International Organization of Securities Commissions, and the International Accounting Standards Board. Fund staff also participated in working groups of the Basel Committee (e.g., on Basel II implementation), the Joint Forum (e.g., on Risk Assessment and Capital), and other standard setters.[6]

The Financial Stability Board (FSB) replaced the FSF in April 2009, and the IMF became a member in September 2010 (IMF, 2010j). While Fund staff had been collaborating informally with the FSF on a range of financial sector issues, the establishment of the FSB with its own Charter provided an opportunity for the Fund to establish a more formal basis for its participation in international efforts to develop and implement more effective regulatory and supervisory policies in the interest of financial stability.[7] At the same time, there were reservations about this approach in the IMF Board, and in approving the Fund's acceptance of FSB membership, Directors underscored the importance of preserving the Fund's independence and accountability to its entire membership.

[5] The FSF had no charter, no permanent bodies, no decision-making procedures and no formal membership. IMF participation in the FSF took place at the senior staff level rather than at the level of the Fund as an institution.

[6] The Basel Committee was established in 1975 and has become the primary global standard-setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters. The Joint Forum was established in 1996 to deal with issues common to the banking, securities and insurance sectors, including the regulation of financial conglomerates.

[7] The FSB Charter endorsed by G20 Leaders in September 2009 established the FSB with a formal mandate and tasks, a decision-making framework and process, and a permanent Secretariat.

ANNEX 2. AN ASSESSMENT OF SIX FINANCIAL SYSTEM STABILITY ASSESSMENTS

This Annex provides a brief assessment of six Financial System Stability Assessment reports (FSSAs) issued after 2010—for Brazil, China, France, India, Italy, and Switzerland—using three criteria. First, and foremost, what is the technical quality of the FSSAs with respect to identifying potential risks; identifying and assessing key challenges to the authorities' policy, regulatory, and supervisory framework; and evaluating the authorities' capacity to supervise and regulate the financial system and resolve crises? Second, do the FSSAs candidly express their diagnoses and recommendations both in the executive summary and in the body of the report? Finally, is there consistency between the FSSAs and Article IV consultations and do subsequent Article IVs follow-up on themes raised in the FSSA?

A. Technical Quality

Identifying risks

All of the FSSAs provide detailed quantitative evaluations of the source, probability, and potential impact of perceived risks to financial and macroeconomic stability. The FSSAs use appropriate modeling strategies to quantify risks. All of the FSSAs offer sound qualitative assessments of macroeconomic and international risks.

None of the FSSAs, however, provides in-depth qualitative assessments of how distorted incentives arising from financial policies—including from implicit and explicit government guarantees, and from too-big-to-fail conditions—shape financial and macroeconomic stability.

While all the FSSAs reviewed analyze the global and regional risks threatening a country's financial and macroeconomic stability, outside of Switzerland, the FSSAs do not provide much analysis of the degree to which a country's financial system affects regional and global financial sector stability. The FSSAs for regional economic powers such as Brazil, France, India, and Italy do not provide much analysis of how their financial systems contribute to regional financial fragility, and the FSSA for China does not provide much discussion of the degree to which the financial system of this global economic giant impacts particular countries and regions.

Assessing policy, regulatory, and supervisory standards

All of the FSSA conduct thorough examinations of the degree to which policy, regulatory, and supervisory systems comply with international standards, codes, and norms.

There are examples, however, in which FSSAs either omit or inadequately substantiate their assessments of key potential weaknesses in a country's policy, regulatory, and supervisory framework. Two examples illustrate these themes.

- First, none of the six FSSAs rigorously assesses market discipline. Since inadequate market discipline can contribute to financial sector instability, FSSAs could more fully meet their objectives by addressing the following questions: Which, if any, deficiencies in market discipline are contributing to financial sector fragility?[1] What policy, regulatory, and supervisory reforms would foster financial sector stability by enhancing private sector monitoring of financial institutions? The FSSAs often suggest improved transparency, but they do not provide much guidance on the policy, regulatory, and supervisory reforms that would materially enhance the monitoring and governance of financial institutions by private investors.

- Second, the FSSAs often do not sufficiently customize their analyses of key standards, codes, and norms to the particular characteristics of the country.[2] For example, capital requirements have different effects depending on whether the banking system is characterized by private banks with large owners (France and Switzerland) or dominated by publicly owned banks (Brazil and China). While recognizing that standards are meant to be uniform, the IMF's country-specific expertise could enhance the prioritization and application of such norms to individual countries. Moving beyond the example of capital requirements, the China FSSA discussion of risks emanating from financial policies, regulations, and supervisory practices—and especially the recommendations on how to address those threats to financial sector stability—does not adequately consider that the state owns much of the banking system. The FSSA notes that the state owns the major financial institutions, but it does not sufficiently incorporate that information into its risk assessment and policy advice.

An adequate analysis of financial sector stability requires a rigorous assessment of the interplay of countries' institutional characteristics and particular regulations. The Fund is uniquely positioned to move much farther away from a "one-size-fits-all approach" and thereby provide more useful assessments.

Assessing regulatory capacity

All of the FSSAs assess the capacity of official regulatory and supervisory agencies, typically recommending that the agencies be granted greater resources and greater independence from the government. Although the France FSSA also raises concerns about the potential influence of financial institutions on regulatory agencies because some board members of regulatory agencies come from the financial services industry, other FSSAs do not delve into this issue.

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[1] IMF (2014b) made a similar point in noting that "FSAP recommendations, especially the large share of micro-prudential and institutional issues, are often driven by identified gaps in compliance rather than their impact on systemic risk."

[2] Survey results reported in IMF (2014b) also show relatively lower satisfaction with how FSAP standards assessments account for country-specific features.

In calling for greater independence from the government, however, the FSSAs do not provide technical evaluations of, or guidance on, how financial regulatory and supervisory agencies should be governed. If the regulatory and supervisory authorities are granted greater independence from the institutions designed to represent the public, then how are they held accountable? Who evaluates regulatory performance?

None of the FSSAs of countries in which state-owned banks play a particularly large role (Brazil, China, and India) gives special consideration to the role of regulation and supervision in such environments. Consider the case of China. The FSSA's discussion of enhancing the capacity and independence of financial regulation and supervision in China is not very different from that in other FSSAs. Yet, the situation is fundamentally different. Is it advantageous for state-owned banks to be regulated and supervised by an entity that is independent of the state? More technical and strategic consideration seems warranted.

In assessing regulatory capacity, the FSSAs provide mixed examinations of governance. The France FSSA discusses potential concerns, but it is quite vague. The Swiss and Brazil FSSA provide more satisfactory analyses. While it is diplomatically challenging to deliver candid appraisals, the FSSAs could provide assessments of how to improve the governance of regulatory agencies when it is recommending that these agencies be granted greater power.

B. Candid and Practical Advice

In all six countries the FSSAs provide candid, practical advice. The advice is candid in that it clearly articulates perceived weaknesses and frankly discusses these recommendations in both the executive summary and the body of the FSSA.

With respect to practicality, the FSSAs provide advice that is feasible. But, as noted above in the discussion of the technical quality of the FSSAs, some of this advice is substantiated; other advice does not adequately consider country-specific factors; and, some major themes are largely omitted (e.g., enhancing market discipline and improving the governance of regulatory agencies).

C. Consistency Between FSSAs and Article IV Consultations

In all six countries, there is consistency between the FSSA and the Article IV consultation. First, the major messages in FSSA are reflected in the Article IV documents that are presented at the same time. Second, subsequent Article IV documents (when available) generally provide strong follow-up by assessing whether the authorities have addressed concerns raised in the FSSA.[3]

[3] This is consistent with the findings reported in IMF (2014a).