BACKGROUND PAPER

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IMF Performance in the Run-Up to the Financial and Economic Crisis: Bilateral Surveillance in Selected IMF Member Countries

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Prepared by Nancy Wagner[1]

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ABBREVIATIONS

DSGE	Dynamic Stochastic General Equilibrium
EUR	European Department
FAD	Fiscal Affairs Department
FCL	Flexible Credit Line
FSAP	Financial Sector Assessment Program
FSB	Financial Stability Board
FSSA	Financial Sector Stability Assessment
G-7	Canada, France, Germany, Italy, Japan, United Kingdom, and United States
G-20	A grouping composed of major industrial economies and systemically-important developing and emerging market countries
GFSR	*Global Financial Stability Report*
ICM	International Capital Markets Department
Management	Managing Director, First Deputy Managing Director, and two Deputy Managing Directors
MCM	Monetary and Capital Markets Department (combined ICM and MFD)
MD	Managing Director
MFD	Monetary and Financial Systems Department
PDR	Policy Development and Review Department (old name for Review Department)
RES	Research Department
SPR	Strategy, Policy, and Review Department (new name for Review Department)
STA	Statistics Department
WEO	*World Economic Outlook*

EXECUTIVE SUMMARY

This paper evaluates the IMF's bilateral surveillance of select advanced and emerging economies during 2004–07, the period just prior to the onset of the global financial and economic crisis. It explores whether IMF analysis and messages in bilateral surveillance (i) identified the risks and vulnerabilities that ultimately played a role in the crisis in the selected countries; (ii) examined the potential interactions between the real economy and the financial sector; (iii) paid sufficient attention to spillovers and contagion risks; and (iv) gave appropriate policy advice to help mitigate the impact of the crisis.

The paper finds that, in general, the IMF's bilateral surveillance did not give warning of the emerging risks and vulnerabilities in advance of the impending crisis. The banner message in the period prior to the outbreak of the crisis was one of continued optimism amid the prevailing benign global environment. Even when risks were identified, the extended period of strong global growth and low volatility meant that risks were not seen to be high or at least not serious. Nevertheless, in most cases, the IMF appropriately urged countries to take advantage of the opportunity provided by favorable conditions to undertake measures which would make the country more resilient in the event of a shock.

The quality of bilateral surveillance, in terms of the crisis that ultimately unfolded, varied greatly among the member countries. Messages to systemically-important financial centers (e.g., the United States, the United Kingdom) were distinctly upbeat. In contrast, the IMF clearly warned emerging markets about the risks from overheating, credit booms, unsustainable debt build-ups, and risky financial practices. But typically it did not give similar messages to advanced economies with similar vulnerabilities. Furthermore, although many of the pertinent risks and vulnerabilities were identified in multilateral surveillance during this same period, they found little voice in the bilateral surveillance discussions, particularly in the advanced economies. And the IMF policy prescriptions for many countries on financial sector issues seemed to champion the approach of the United States and the United Kingdom.

The Fund's failure to give clear warning was the result of a variety of factors. Analytical weaknesses and cognitive biases seemed to play the largest role in the shortcomings of bilateral surveillance: group-think, intellectual capture, lack of analysis on spillovers/contagion, inadequate macro-financial linkages analysis, and overdependence on macro-models. Lack of critical data did not seem to play an important role. Some long-standing problems which adversely affected the Fund's performance included: organizational silos, the Fund's insular nature, a predominant macroeconomist culture which sidelined financial sector issues, and misaligned incentives that discouraged contrarian views. Self-censorship on "speaking truth to power" also played a role. Discussions on the 2007 Bilateral Surveillance Decision and the IMF downsizing may have also distracted the Fund in this most critical period.

I. Introduction

1. **This paper evaluates the IMF's bilateral surveillance of select advanced and emerging economies during 2004–07, the period just prior to the onset of the global financial and economic crisis**.[2] It explores whether the IMF analysis and messages in bilateral surveillance[3] (i) identified the risks and vulnerabilities that ultimately played a role in the crisis in the selected countries; (ii) examined the potential interactions between the real economy and the financial sector; (iii) paid sufficient attention to spillovers (both inward and outward) and contagion risks; and (iv) gave appropriate policy advice to help mitigate the impact of the crisis.

2. **The economies covered include the G-20 and those (excluding low-income countries) that initiated a new IMF arrangement**, including contingent commitments under an FCL, in the aftermath of the crisis (through 2009). Also included are financial centers such as Luxembourg and Switzerland, and countries such as Ireland and Spain which had vulnerabilities similar to those that precipitated the crisis in the United States and the United Kingdom. This set of countries has been chosen with the aim of capturing the key IMF messages to systemically-important countries, as well as those most adversely affected by the crisis.[4]

3. **This paper focuses primarily on the IMF's messages to the selected countries in the year prior to the onset of the crisis in August 2007**. It is based on a document review, including from the most recent Article IV consultation up through August 2007 and any Financial Sector Assessment Program (FSAP) examination conducted between January 2004 to July 2007.[5] For some countries, the authorities and IMF mission team members were interviewed. For those countries covered in-depth, a broader timeframe (2004 until mid-2008) and range of internal and external documents were reviewed. In addition, this study considers findings from surveys conducted for the IEO evaluations on *Research at the IMF: Relevance and Utilization* and *IMF Interactions with Member Countries*, and a staff survey conducted by one of the most critically-affected IMF area departments.

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[2] This paper has been prepared as background for the IEO evaluation on *IMF Performance in the Run-Up to the Financial and Economic Crisis: IMF Surveillance in 2004–07*.

[3] Bilateral surveillance is an ongoing process of regular comprehensive consultations with individual member countries. These consultations are known as "Article IV consultations" because they are required by Article IV of the IMF's Articles of Agreement.

[4] The countries/economies covered by the evaluation are: Argentina, Australia, Austria, Belarus, Bosnia and Herzegovina, Brazil, Canada, China, Colombia, Costa Rica, El Salvador, European Union, France, Germany, Guatemala, Hungary, Iceland, India, Indonesia, Ireland, Italy, Jamaica, Japan, Korea, Latvia, Luxembourg, Mexico, Poland, Romania, Russia, Saudi Arabia, Serbia, Seychelles, South Africa, Spain, Switzerland, Turkey, Ukraine, United Kingdom, and United States.

[5] The FSAP, initiated in 1999, provides for in-depth examinations of countries' financial sectors.

4. **The paper is organized as follows**. Section II provides some background to the evaluation, including a brief overview of the objectives of IMF bilateral surveillance and some remarks on the broad causes and timeline of the crisis. Section III considers the IMF's messages to member countries. Section IV reviews some of the key findings from the interviews of country authorities conducted for this study. Section V explores the possible reasons for the IMF's performance, including analytical weaknesses, organizational impediments, internal governance problems, and political constraints. Based on these findings, the concluding section considers some general recommendations to strengthen the institution's bilateral surveillance in the years ahead.

II. Background

A. Objectives of Bilateral Surveillance

5. **Surveillance is a fundamental role of the IMF, and individual country assessments are one of the most important tasks of this surveillance**. While the mandate for these assessments is laid out in the Articles of Agreement, the operational practice of bilateral surveillance has evolved markedly over time in response to the changing global economic and financial environment. Thus, the 1977 Decision on Surveillance over Members' Exchange Rate Policies was crafted in the aftermath of the collapse of the Bretton Woods system, at a time of still great uncertainty about the implications of the new system of exchange rates. It was expected that the Decision would be revised in light of experience, but it remained little changed for the next three decades, despite the evolution in the practice of surveillance.

6. **The series of crises in the 1990s led to some major changes in the practice of bilateral surveillance**. Perhaps most notable was the recognition of the key role of the financial sector in supporting macroeconomic stability. To this effect, the IMF and the World Bank introduced the Financial Sector Assessment Program (FSAP) to help promote sound financial systems in member countries. While the FSAP was voluntary, member countries were strongly encouraged to participate. At the same time, mission teams were encouraged to examine macro-financial linkages, employing among other tools balance sheet analysis and the results of stress tests. In June 2007, the Board adopted the 2007 Decision on Bilateral Surveillance aimed at clarifying the purpose of bilateral surveillance, focusing on the concept of external stability as the organizing principle. On September 21, 2010, in response to the 2007–08 crisis, the IMF's Executive Board took a decision to make the financial stability assessment component of the FSAP mandatory for the world's top 25 financial sectors.

7. **What are the objectives of surveillance?** "One of the IMF's core activities is to monitor global, regional, and national economies to assess whether countries' economic and financial policies are consistent not only with the health of their own economies, but also with the interests of the international community. This process is known as surveillance. The IMF's work in this area is intended to help head off risks to international monetary and financial stability, alert the institution's 187 member countries to potential risks and

vulnerabilities, and advise them of needed policy adjustments." [6] This statement essentially forms the basis for this evaluation of bilateral surveillance.

B. A Brief Overview of the Crisis[7]

8. **A number of factors came together to contribute to the worst financial and economic crisis since the Great Depression.** Among the major macroeconomic factors were large global imbalances and easy monetary policy,[8] which have been cited as contributing to rapid increases in leverage in many countries and a search for yield amid exceptionally low risk premia. Other factors included regulatory shortfalls, perverse incentives in the financial industry (including those arising from the "originate-to-distribute" model of lending, conflicts of interest in credit rating agencies, compensation which encouraged risk-taking, etc.), and financial innovation that created difficult-to-value structured instruments. The "Great Moderation's" sustained period of strong global growth and low inflation contributed to a mood of excessive optimism.

9. **The crisis unfolded in several waves** (Figure 1). By summer 2007, increasing defaults in the U.S. subprime market led to the failure of some hedge funds and mortgage companies, spikes in credit spreads, and liquidity problems in interbank markets. By early 2008, many of the advanced economies were suffering an economic downturn. In the spring and summer of 2008, Bear Stearns and Fannie Mae and Freddie Mac were rescued from deep financial troubles with U.S. government support. During this initial period of the crisis, many economic commentators, including in the IMF, believed that some of the emerging market economies had largely "decoupled" from the stricken advanced economies and were expected to sail through the crisis with only minor damage. But the events of September 2008 showed that no one was immune to the unfolding crisis. In the aftermath of the Lehman Brothers bankruptcy, global credit markets came close to collapse,[9] dragging down even the most stalwart economies.

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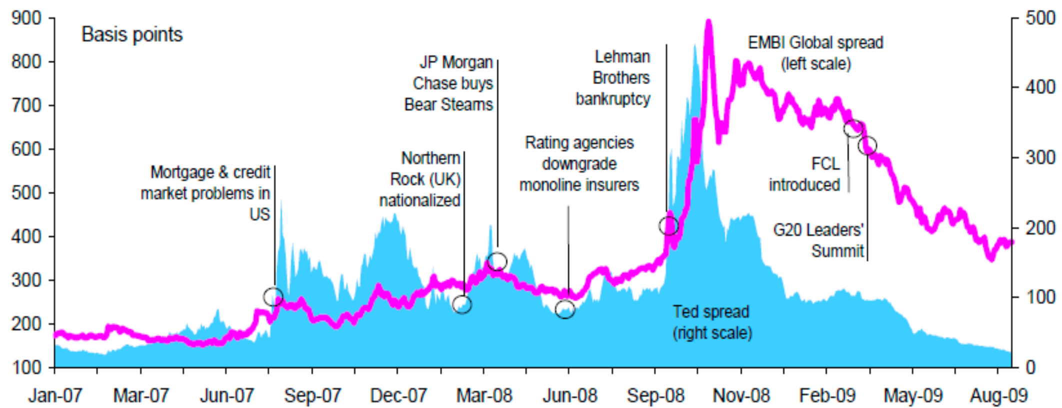
[6] IMF website describing the 2007 Decision: http://www.imf.org/external/np/exr/facts/surv07.htm.

[7] This paper does not analyze in depth why the crisis occurred, relying instead on the IMF's own analysis of the events that led to the crisis, as described in Annex 1.

[8] Including the "Greenspan Put." The put refers to the fact that since the late 1980s, whenever a crisis arose in the United States, the U.S. Federal Reserve would react by lowering interest rates to pump liquidity back into the market. This perception of put protection on asset prices has been implicated in creating moral hazard and helping to inflate a speculative bubble in the run-up to the crisis.

[9] Even the usually stable trade financing almost disappeared overnight, with serious implications for the entire global trading system.

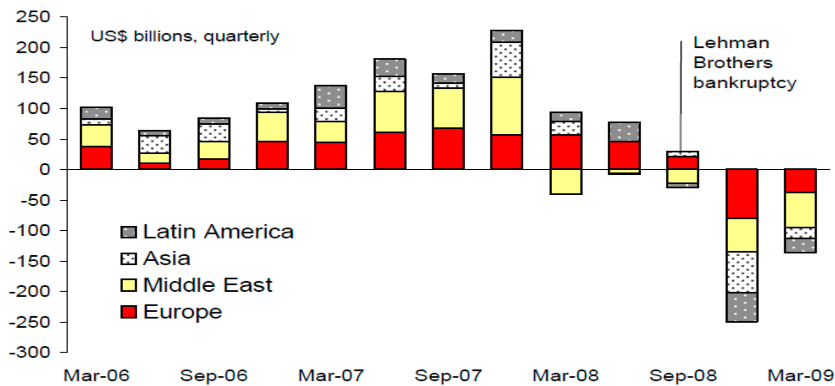
Figure 1. Timeline of Crisis in Advanced and Emerging Markets



Source: IMF (2009c).

10. **But it was not just a story of contagion from the United States.** Much of the impact on emerging markets in late 2008 was due to a reassessment of risk after the Lehman collapse, triggering a sudden stop in capital flows, with added strains from the sharp drop in global economic activity (Figure 2). But many of the most stricken countries, advanced and emerging alike, had also pursued policies that made them particularly vulnerable. The results of these policies were similar to the antecedents of the financial crisis in the United States—housing (and equity market) booms, rapid increases in consumer credit and debt, excessive risk-taking (resulting in very high leverage ratios in many finanical institutions), etc. In some cases, these shared vulnerabilities may have played as large a role as contagion. Indeed, a number of countries experienced housing booms of a greater magnitude than that in the United States, and their housing bubbles burst in a seemingly choreographed performance with that in the United States. Furthermore, the leverage ratios were higher in some European banks than in their counterparts in the United States, with some European institutions imploding before the U.S.-triggered crisis fully took hold.

Figure 2. Bank Flows to Emerging Markets



Source: IMF (2009c).

III. Did the IMF Give Warning?

11. **The paper finds that, in general, there were few clear warnings in advance of the impending crisis**. The banner message in the period prior to the outbreak of the crisis was one of continued optimism amid the prevailing benign global environment. Financial turbulence had arisen in early 2007, associated with rising delinquencies in the U.S. subprime market. Nevertheless, staff reports and other documents, as late as the summer of 2007 (and just prior to the more widespread outbreak of turmoil and the freezing up of the interbank market), pointed to a positive near-term outlook and favorable financial market conditions. This only further underpinned the view of a resilient global economy, creating a tendency toward complacency.

12. **Some of the risks that subsequently materialized were identified by the IMF, albeit typically in very general terms.** There were rarely any statements on probabilities (were these merely thought to be tail risks?), relative severity, or potential timing. To some extent, this tone was a matter of wording (the classic economist's style of "on the one hand …, on the other hand…") or of a natural reluctance to express the likelihood of a crisis.

13. **The extended period of strong global growth and low volatility meant that risks were not seen to be serious or very likely.** Thus, even when relevant risks were identified, the prevailing benign international financial conditions were allowed to obscure a sense of urgency to reduce the risks and undermined proper forecasting of the possible severity of adverse outcomes. In other cases, comfort was taken from the results of stress tests. And one of the risks during this period that most captured the IMF's attention and diverted it from the build-up of systemic risks elsewhere was that of rising commodity prices, including international oil prices.

14. **The IMF did, however, appropriately stress the urgency of addressing the risk of a disorderly unwinding of global imbalances**. The IMF attempted to tackle the issue of growing global imbalances through a multi-pronged strategy, using its instruments of bilateral and multilateral surveillance and the newly-created Mulilateral Consultation process. The IMF's policy prescriptions to address the imbalances focused on rebalancing domestic demand, including: fiscal consolidation in the United States, greater exchange rate flexibility in emerging Asia, structural reform in the Euro area, financial sector reform in Japan, and increased domestic spending in oil-producing countries. Not surprisingly, these policy prescriptions were reflected in the key messages of the relevant bilateral surveillance documents.

15. **But the IMF did not look at how these imbalances were linked to the systemic risks building up in financial systems**. Instead, the IMF focused almost solely on one scenario, namely, an exchange rate crisis characterized by a rapid pullout from dollar assets, leading to a disorderly decline in the dollar and a spike in interest rates. In the event, a *temporary* unwinding of imbalances materialized through a financial crisis. Furthermore,

rather than flight from the dollar, the U.S. currency became the safe haven while global interest rates hit new lows.

16. **On policies to mitigate the consequences of a shock, the IMF's surveillance was typically better, particularly in emerging markets.** The underlying question that staff addressed was: were countries well positioned to deal with shocks? That is, was the financial system, especially the banking system, sound, with reasonable cushions to absorb shocks? Were inflation and the fiscal position (deficit and debt) under control, so that there would be scope for counter-cyclical policy in the event of a downward shock to demand? What kind of exchange rate regime was in place—a regime with flexibility to absorb shocks, or, if not, one with sufficient international reserves?

17. **In many cases, the IMF gave appropriate policy recommendations designed to strengthen a country's ability to absorb shocks**. On the financial sector, the IMF frequently urged countries to enhance supervision and regulation, as well as banks' own risk management practices. Improving fiscal positions was also seen as key to strengthening a country's resilience. The IMF urged countries to take advantage of the opportunity provided by favorable conditions to undertake, or accelerate, measures to address medium-term needs, especially structural reforms, which would make the country more resilient in the event of a shock.

18. **The quality of bilateral surveillance, in terms of the crisis that ultimately unfolded, varied greatly among the member countries**. Messages to systemically-important financial centers, for example, were distinctly more upbeat in contrast to repeated warnings to some emerging markets with similar vulnerabilities. The analysis of macrofinancial linkages also was typically better in emerging markets than in advanced economies,[10] yet the IMF tended to believe it did a better job in the advanced economies.[11] Furthermore, many of the pertinent (and more specific) risks and vulnerabilities were identified in multilateral surveillance during this same period,[12] yet found little voice in the bilateral surveillance discussions, particularly of the advanced economies. And the IMF policy prescriptions for many countries on financial sector issues seemed to champion the approach of the United States and the United Kingdom.

19. **To a considerable degree, the messages that the IMF gave countries in the run-up to the crisis can be categorized by "type" of country**. Thus, the remainder of this

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[10] See Watson (2008).

[11] Annex 2 gives some examples of what the IMF regarded as best practice in its financial sector surveillance.

[12] See Banerji (2010).

chapter is organized by country types: systemically-important financial centers, other advanced economies, and emerging markets.[13]

A. Systemic Financial Centers

20. **This group—which includes the United States, the United Kingdom, Switzerland, and the Euro area, all with highly-developed, global financial systems—was at the epicenter of the crisis**.[14] The first three countries are covered in much greater depth in separate background papers,[15] but some of the key points are covered here briefly for comparison purposes.

21. **In general, this paper finds that the IMF largely endorsed the monetary and financial policies and practices of the U.S. and U.K. authorities**. The IMF saw these countries as having strong and sophisticated financial institutions, regulators, and supervisors, and believed that they were on top of developments and able to smooth out any rough bumps. Thus, the IMF chose to give these countries the benefit of the doubt and gave rosy assessments of their financial systems. On the other hand, the IMF was more willing to express concerns regarding the Swiss financial system, perhaps reflecting its relative size, and the corresponding traditional focus on this sector. Also, the Swiss authorities appeared more interested in and appreciative of IMF feedback.

22. **In the context of the crisis, *the United States* is perhaps the clearest example of serious shortcomings in bilateral surveillance**. The Fund neither highlighted the relevant risks and policy weaknesses, nor did it warn the membership at-large about the possibilities of spillovers and contagion from problems originating in the United States. Indeed, the analysis often seemed to come out on the wrong side of the most pertinent issues, as it championed the strength of the U.S. financial sector and its innovation.

23. **What were the messages coming out of U.S. surveillance?** The Article IV discussions stressed the need for fiscal consolidation, in part to address the persistent global imbalances. But even here, as shown by some analysis done in PDR, the current account balance more closely tracked households' saving-investment balances, with the fiscal balance showing little correlation. Meanwhile, staff was heralding the benefits of securitization for its

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[13] The examples of IMF bilateral surveillance should not be seen as criticism of a specific mission chief or team, as all of these messages were vetted through the IMF review process. In the review process, the originating departments' senior staff, several functional departments (typically, SPR, FAD, MCM, and STA), and Management provide comments on and approve the relevant documents and messages. Among functional departments, only SPR has sign-off responsibility.

[14] Some other systemically-important financial centers were not as severely affected by the crisis and were, therefore, not included in this study.

[15] See Dhar (2010) and Peretz (2010), respectively.

risk-diversifying properties and was sanguine about the likelihood of a housing decline. Even after house prices began to drop, staff believed that the repercussions for financial institutions would not be severe. Monetary policy received little critical attention, including a lack of any discussion on whether easy monetary policy might have contributed to exuberant asset prices and rising indebtedness. The shadow banking system went largely unnoticed, and the first analysis of the subprime issue only occurred in the July 2007 staff report, after problems in this sector had already surfaced.

24. **IMF staff views often seemed to closely parallel those of the U.S. Federal Reserve**. During the July 2007 U.S. Article IV consultation, IMF staff continued to express a rather sanguine view, notwithstanding already evident problems in housing and financial markets. Thus, the banner message for the overall economy was that "[t]he most likely scenario is a soft landing of the U.S. economy." On financial innovation based on the originate-to-distribute model, "[t]he system has thus evolved to yield: (i) a profitable and well-capitalized core relatively protected from credit risks; (ii) an innovative and lightly-regulated periphery, including specialized institutions that originate loans and a multitude of hedge funds that support market liquidity and price discovery; and (iii) the transfer and diversification of credit risk via a wider range of securitized assets and credit derivatives. Against this rapidly changing financing landscape, U.S. markets have remained globally pre-eminent and robust to a range of shocks."

25. **Surveillance of *the United Kingdom* presented a similarly optimistic picture**. Financial innovation and regulation were praised, the banking sector was regarded as robust, and the overall message was reassuring. The IMF did, however, raise concerns about the risk of a fall in U.K. property prices, but the concern was only about the impact on consumption, not on financial institutions. Again, in line with the focus on global imbalances, the primary external risks identified were a disorderly adjustment in exchange rates and/or a sharp rise in global interest rates.

26. **Was the February 2006 FSAP follow-up helpful in highlighting the relevant risks?** The short answer is, unfortunately, no. While it appropriately noted risks from increased reliance on wholesale funding, deteriorating asset quality, the rapid growth of the credit-risk-transfer market, and increased subprime mortgage lending, the bottom line in each case was, again, reassuring. For example, quotes from the FSAP follow-up included: "The U.K. banking system is one of the strongest among advanced economies …;" "Banks' mortgage books do not appear to be a significant direct source of vulnerability;" and "Overall, the financial sector is well regulated."

27. **As in the United States and United Kingdom, the overall tone for *Euro area* surveillance was a very positive one.** According to the 2007 Article IV staff report (issued in July), "[T]he outlook is the best in years. The economy is poised for a sustained upswing, partly because of cyclical considerations, but also because of policies …" and "The external setting is generally considered propitious."

28. **On the financial sector, the IMF seemed to take comfort from the fact that "[f]inancial market volatility and risk premia remain historically low."** They did, however, suggest that leverage in parts of the corporate and household sectors may have become excessive and noted that the complexity of financial instruments and activities of highly-leveraged nonbank financial institutions posed important risks. But the IMF still believed that, on the regulatory front, "the key challenge was to ensure the uniform implementation of the directives by national prudential authorities …" rather than stressing the need for supervisors to address the risks mentioned earlier. This may have reflected, again, the view that supervisors were sufficiently sophisticated to be on top of developments.

29. **Bilateral surveillance of *Switzerland* presents a more nuanced picture, with more positives than negatives with respect to the IMF's performance**. Given the importance of the financial sector to the Swiss economy, it was not surprising that Fund surveillance had long been sensitive to financial issues. This sensitivity was further heightened by an insightful FSAP update, conducted in May 2007 just before the crisis began to take hold.

30. **The Financial Sector Stability Assessment (FSSA) Update focused on a number of issues ultimately critical to the crisis**.[16] These ranged from the difficulty of pricing complex financial instruments to possible channels of systemic risk transmission. Fund staff also rightly raised concerns about the high leverage and international exposure of the two largest banks, concerns that proved quite prescient. The Update recognized the importance of spillovers from abroad, noting that "[T]he main downside risks for the financial sector appear to be external," and "Risks would be compounded by a hard landing of housing markets in the United States and other key industrial countries via direct exposures and also indirectly through feedback to real economic activity." It expressed concerns that healthy balance sheets and profits could be building a degree of complacency, creating vulnerability to shocks. Fund staff also understood that the size of the banking sector posed special risks, commenting that while Swiss regulators were good, the sector's size implied that regulators had to be "extraordinary."

31. **Even here, though, the main message was relatively upbeat.** Stress tests and scenario analyses underestimated the impact of various shocks. These tests indicated that the banking sector was resilient to macroeconomic shocks envisioned by the IMF staff (the major risk scenario tested was one of dangers emanating from global imbalances and a disorderly dollar decline). Furthermore, the 2007 Article IV staff report took a more upbeat tone than the same-year FSSA, downplaying concerns with system-wide financial sector risks expressed in the FSSA. The staff report also ignored the FSSA's recommendation to strengthen supervision of the two largest banks, particularly with regard to liquidity risk.

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[16] An FSAP team prepares a confidential Aide-Mémoire for the country authorities, summarizing the main findings and recommendations of the mission. The team then prepares an FSSA report for discussion of the findings at the IMF Executive Board.

Such inconsistencies in Fund communication might have blurred the message and ultimately impaired the quality of surveillance.

B. Other Advanced Economies

32. **Within this group, the quality of the IMF's performance in the run-up to the crisis was highly variable.**[17] In some cases, the vulnerabilities were similar to those in the financial centers, but the warnings typically were clearer. In some countries with stricter banking regulation, the IMF often pushed for more innovation, as in the United States or the United Kingdom. In none of these cases was the IMF able to identify most of the key channels through which the crisis eventually impacted the country, in large part because little attention was paid to spillovers and contagion, and where these issues were examined, the expected direction of contagion was from emerging markets, not the systemic advanced economies.[18]

33. **A number of advanced countries—such as Iceland, Ireland, and Spain—shared many of the fundamental vulnerabilities present in the systemic financial centers**. They experienced real estate booms, rapidly rising debt levels, and faced many of the financial risks akin to those in the larger countries (e.g., high liquidity, cross-border funding, weak risk management, low risk premia against a background of easy monetary policy). In each such case, the crisis experienced by the country may have been triggered by external events, but domestic factors played a large role in its severity.

34. **Did the IMF give forceful warnings about the macrofinancial risks in these cases**?[19] Were the messages and advice consistent with what was being told to other countries with these vulnerabilities? A comparison of Ireland, Spain, and the United Kingdom shows that, despite similar vulnerabilities (and the country teams all coming from the same area department), the messages differed in content and forcefulness. Surveillance in Iceland, the country which arguably suffered the worst implosion from the crisis, was notable for failing to stress the dangers of an oversized banking system and focusing instead on the possibility of overheating (Box 1).

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[17] The analysis in this section focuses on a few countries where the IEO conducted visits to interview the authorities, but is also based on a desk review of documents of many other advanced economies.

[18] Thus, for example, surveillance of the Austrian economy repeatedly highlighted the risks of the banking system's heavy exposure to emerging Europe or the "East," but did not look at global shocks or shocks emanating from the "West."

[19] Admittedly, fears of an adverse market reaction could mute the forcefulness of public warnings about risks, reflecting the long-standing tension between candor and transparency. However, interviews with country authorities and internal document reviews suggested that, with a few exceptions, there was little difference in the issues or concerns raised in private versus public communications.

Box 1. The Icelandic Banking System: "Too Big to Fail" and "Too Big to Save"?

Did the IMF notice? In spite of a banking sector that had grown from about 100 percent of GDP in 2003 to almost 1,000 percent of GDP by the onset of the crisis, financial sector issues were not the focal point of Iceland's 2007 Article IV discussions. While the massive size of the banking sector was noted, it was not highlighted as a key vulnerability that needed to be addressed urgently. Instead, the IMF worried about the possibility of overheating, and the staff report was sanguine about Iceland's overall prospects. For example, the headline sentences in the staff appraisal were "Iceland's medium-term prospects remain enviable. Open and flexible markets, sound institutions, … have enabled Iceland to benefit from the opportunities afforded by globalization." The report even presented a positive picture of the banking sector itself, noting that "the banking sector appears well-placed to withstand significant credit and market shocks" and "[B]anks took important steps over the past year to reduce vulnerabilities and increase resilience."

Serious doubts about the health and viability of Iceland's three largest private banks were being raised elsewhere: investment banks and others pointed out the dangers of a banking system with a seriously flawed business model: (i) funded almost entirely on the wholesale (equity and debt) market, and (ii) inter-connected and non-transparent cross-ownership and related party and equity-based lending. At the Article IV Board discussion, a Board member remarked that Iceland essentially was functioning like a hedge fund, borrowing abroad to acquire foreign assets, adding that Iceland's high leverage posed a risk to the financial system. But these views did not find impact IMF surveillance. In fact, following the completion of the 2007 Article IV, Iceland went without an IMF mission chief for about six months, in spite of the view by many external analysts that Iceland was moving into a precarious position regarding continued access to external financing.

In **August 2008**, on the eve of the crisis, the IMF issued an FSSA Update and a staff report for the 2008 Article IV consultation. Strangely, **the tone of the Update was relatively reassuring, while the Article IV report, which had a wider macro perspective, painted a rather alarming picture.** The Update claimed that "[T]he banking system's reported financial indicators are above minimum regulatory requirements and stress tests suggest that the system is resilient." It then noted a long list of vulnerabilities, but concluded that "banks are implementing measures to manage these risks … They have diversified their funding sources, increasing the proportion of retail deposits", referring to the development of retail bases from abroad (e.g., Icesave) and noting only in passing that such deposits may be more volatile. In contrast, the Article IV report stated that "[W]ith external liquidity constraints binding, economic activity is expected to slow significantly from unsustainably high levels …. Uncertainty surrounding the outlook is unusually large, dominated by significant downside risks—both external and domestic. In the event of a prolonged external liquidity crunch, the economy could face severe financial strain, especially if domestic risks materialize simultaneously." The contrast between these two reports highlights how weaknesses in internal governance can undermine the clarity and coherence of IMF's messages.

35. **Surveillance in *Ireland* raised concerns about a number of risks and vulnerabilities that were not discussed in the United Kingdom.** Thus, for example, staff pointed to risks to the Irish financial system from exposure to an overheated property market. Staff supported the Irish authorities' moves to tighten regulation of high loan-to-value mortgage lending and to improve banks' liquidity management framework, policies that were apparently not raised with the U.K. authorities despite the similar vulnerabilities. There were also references to the possibility of an externally-generated crisis, although the main crisis scenario was of a sharp rise in euro interest rates.

36. **But Irish surveillance suffered from weaknesses as well.** An FSAP update in mid-2006 failed to sufficiently sound the alarm about the building vulnerabilities, concluding that the "outlook for the financial system is positive," with financial institutions having sufficient cushions to cover a range of shocks and citing the diversification of wholesale

funding sources as a strength. Furthermore, staff did not press for additional regulatory tightening beyond the authorities' proposals. And the 2007 Article IV staff report, despite naming a number of downside risks, painted a picture of continued prosperity.

37. **Surveillance in *Spain* raised alarm bells somewhat more loudly than in Ireland, aided by an FSAP in mid-2006**.[20] The FSAP gave a major boost to the integration of financial sector analysis into macroeconomic surveillance and also stimulated a much richer Executive Board discussion on financial sector issues and macro-financial linkages. Staff highlighted the risks of rapid credit growth and a potential downturn in the housing market, particularly if combined with an adverse macroeconomic scenario. They raised concerns about a rapid adjustment in balance sheets, and stressed that the accumulation of private sector indebtedness cannot go on indefinitely. Staff praised the prudential supervisory framework, citing the dynamic loan-loss provisioning system; however, this approach to provisioning was apparently not raised in the discussions with either Ireland or the United Kingdom.

38. **Even in this case, though, the overall message was fairly positive**. The 2007 Article IV still projected a soft landing, albeit noting the pronounced downside risks posed by rising private indebtedness. The risks associated with this high indebtedness were thought to relate mainly to the growth outlook rather than to financial stability, basing this view in part on the 2006 FSAP's findings that the banking system should prove resilient to a range of large adverse shocks. Box 2 discusses some weaknesses of FSAPs in the run-up to the crisis.

39. **Until the crisis hit, the rapidly-innovating U.S. and U.K. financial systems were seen as the gold standards**. Thus, for some countries with less dynamic financial sectors (often owing to more stringent regulatory systems), IMF surveillance seemed to imply that they should strive to be more like the U.S. and U.K. financial systems. Innovation, a main factor behind the soaring profitability of the financial centers, was seen as a very desirable feature, with little note of the potential risks. Indeed, a senior IMF official, in an interview for this study, now admits that one of the key crisis red flags that the IMF missed was the excessive profits associated with overly risky behavior.

[20] Note that Ireland had an FSAP update in mid-2006, rather than a full-scale FSAP as Spain had that year.

Box 2. Did FSAPs Warn Effectively About the Relevent Risks and Vulnerabilities?

For most advanced countries, the answer is largely no. This box draws on IMF (2009b) and FSAPs of advanced countries during 2004–08 to understand some of the main factors why FSAPs, particularly in advanced countries, have had a mixed record in this regard.

- **Lack of candor and clarity**: This seems to have been more of a problem in the FSAPs for advanced than for other countries, as some of the IMF's assessments for emerging markets were pointed and direct about risks and vulnerabilities. According to IMF (2009b), lack of candor and clarity "might be symptomatic of a desire of team members to avoid conflict with national officials." The typical tendency was to present a "balanced" view, beginning with a positive statement before acknowledging any risks. Often key stability concerns discussed in Article IV staff reports were not mentioned in the reports' executive summaries.
- **Inadequate or lack of coverage on topics relevant to the crisis**: Coverage of liquidity risks, crisis preparedness, bank resolution, and external funding risk seemed less consistent in the FSAPs for advanced countries than for emerging markets. To assess liquidity risks, for example, FSAPs sometimes reviewed only the central bank's liquidity management instruments. Some aspects of capital markets that should have received attention in advanced countries—asset securitization, commercial paper, and short-term funding markets—were not routinely covered.
- **Stress test weaknesses**. According to IMF (2009b), "stress tests … did not provide significant insights regarding the crisis." Reasons include: specifying shocks that were not sufficiently severe (reflecting, in part, the sensitivity of country authorities and the difficulty in "thinking the unthinkable"); missing important sources of instability—liquidity risks, concentration of exposures in real estate, off-balance sheet exposures; working with inadequate data, particularly regarding off-balance sheet exposures and balance-sheet interconnectedness; and paying insufficient attention to cross-border and global issues; as well as methodological challenges in modeling liquidity risk, contagion channels, second-round effects, nonlinearities, structural breaks, and correlation across portfolios.
- **Failure to integrate multilateral perspectives.** The FSAPs for most countries did not discuss the global macroeconomy nor the developments taking place in countries with strong economic ties to the subject country. They typically focused on domestic issues and scenarios and did not look at cross-country risks or spillovers, crosscutting issues, or global economic risks.
- **Misplaced emphasis**: In those instances where global risks were considered, the scenario was the impact from a disorderly collapse of the dollar in line with the IMF's focus. In fact, the unsustainable global imbalances impacted financial sectors in a markedly different way.
- **Reassuring messages that induce complacency**: Among the key messages from advanced county FSAPs in the run-up to the crisis were: "the outlook for the financial system is positive;" "financial institutions have sufficient cushions to cover a range of shocks; " the diversification of sources of foreign wholesale funding is a source of strength;" "stress tests (…) suggest that the financial system as a whole is well positioned to absorb a significant fall in housing prices;" "the financial sector is generally sound and should be resilient to large, but plausible shocks;" "no weaknesses that could cause systemic risks were identified."

40. **The following findings illustrate the IMF's view on the more conservative banking systems**:

- ***Canada's* financial system proved to be among the most robust during the crisis**. But it took the crisis to change the IMF's view. This shift in viewpoint is perhaps best seen by comparing quotes from the 2007 and 2009 Article IV reports, pre- and post-crisis, respectively. In 2007, the IMF said that "[L]owering regulatory impediments to bank entry and consolidation could increase the efficiency and dynamism of the financial sector (Figure11)." The panel charts in the referenced Figure 11 emphasize

Canadian banks' conservative strategies (e.g., "risk-based capital buffers are amongst the world's most generous") and show how this leads to lower profitability than in the United States ("conservative Canadian banking strategies yield significantly lower returns on assets than in the U.S."). By 2009, however, the IMF's tone had changed markedly, by then noting that the banking system "displayed remarkable stability amid the global turbulence, thanks in good part to strong supervision and regulation."

- ***Germany's*** **financial system was hit hard by the crisis,** with two banks exposed to the U.S. subprime mortgage market needing official support to meet their liquidity requirements. This type of risk was not identified by IMF surveillance, which instead was focused on structural reform of the banking system. While much of that advice might have been justified, it also seemed that some of the critique was, again, aimed at making German banks more like their counterparts in the United States and United Kingdom. For example, the 2006 Article IV staff report stresses that "…profitability is not yet on par with international levels and innovation needs to advance further."

- ***Italy's*** **financial sector was roiled by the crisis, but managed to withstand the turbulence**. This was, in part, due to a tighter regulatory environment for lending (including fairly strict limits on the loan-to-value ratios for mortgages). The 2006 Article IV noted that "[T]o fully play its role in promoting growth, the financial sector needs to move beyond its heavy reliance on bank intermediation. Nonbank funding sources … are important for financing new firms." The Fund's advice concentrated on market-oriented reforms, referring to structural impediments that ultimately turned out to protect the financial system from becoming exposed to the crisis triggers.

- ***Japan's*** **banks avoided major exposure to the subprime problem.** Nevertheless, the country's sharp fall in GDP was the worst among the G-7 countries, as its export sector contracted sharply amid a drop in demand for big-ticket durable goods. While the 2007 Article IV expected near-term growth to remain above potential and saw risks as balanced, it did rightly point to a possible slowing in the United States, volatile energy prices, and global financial turbulence as the main downside risks. But the IMF also focused on the need to raise bank profitability (a long-standing issue in IMF staff reports for Japan), adding that "[D]eeper and more diversified local capital markets—such as for credit derivatives and asset-backed securities—would help intermediate more efficiently cross-border capital flows and improve returns on Japan's large pool of savings."

C. Emerging Markets

41. **A series of crises in emerging markets (e.g., emerging Asia, Mexico, Brazil, Russia, Argentina) in the 1990s and early 2000s led the IMF to concentrate on identifying risks and vulnerabilities in these countries**. Thus, the Vulnerability Exercise,

work on early warning systems, and crisis working groups were almost solely focused on emerging markets.[21]

42. **Not surprisingly, therefore, the IMF's performance in the run-up to the crisis was often far better in emerging markets.** Many of the pertinent risks and vulnerabilities were identified for these countries, although the banner message was often more sanguine than merited. But even among emerging markets, there was a sharp distinction in the IMF's performance, namely, that the IMF did a better job on those countries with large current account deficits and other traditional macroeconomic vulnerabilities. On other emerging markets, particularly commodity exporters and those from regions that had been hardest hit by past crises, the IMF had expected a "decoupling," and thus failed to fully recognize nor alert them of their vulnerability to a crisis of the sort that occurred.

43. **The Vulnerability Exercise, initiated in 2001, was a confidential, internal procedure aimed at identifying underlying vulnerabilities and crisis risks in emerging markets**.[22] A variety of indicators were used, including from the external, fiscal, financial, and corporate sectors. While the Vulnerability Exercise was essentially an interdepartmental tool overseen by PDR, the final judgment on a particular country's vulnerability largely rested with the relevant area department. Thus, this exercise represented a clear case of the interdepartmental collaboration and the integration of multilateral perspectives in bilateral surveillance.

44. **How successful was the Vulnerability Exercise in achieving its goals?** The Vulnerability Exercise succeeded in identifying the countries most at risk and in strengthening the surveillance messages in those countries (IMF, 2009c).[23] As shown in Figure 3 below, with data from September 2007 (a full year before the Lehman collapse pulled emerging markets into the crisis), every country that eventually undertook a new program after the crisis hit had already been identified as having medium or high vulnerability.[24] Moreover, all new program cases had vulnerabilities not only in the external

[21] The IMF seemed to largely ignore the fact that a number of advanced economies had also suffered serious crises of a financial nature in the not-too-distant past, including Japan and Scandinavia. The IMF only decided to include advanced countries in its Vulnerability Exercise in October 2008, after the eruption of the crisis, despite calls from some senior staff and Executive Directors, as early as 2003–04, to include advanced countries in the Vulnerability Exercise.

[22] In 2005, the IMF modified the Vulnerability Exercise to enhance the analytical underpinnings of the assessments. It also introduced an indicator-based rating scheme to provide objectivity to the process.

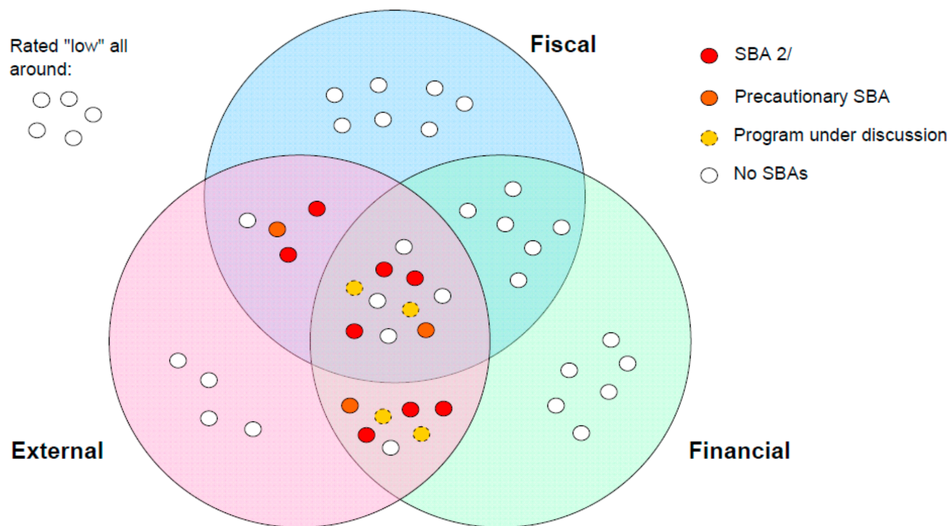
[23] Nevertheless, several key players in the institution believed that concerns about the vulnerabilities of these countries were overblown and economic developments were a natural outcome of the ongoing process of convergence. Strong interdepartmental collaboration and leadership on the part of Management helped overcome these differences.

[24] The findings from the Vulnerability Exercise led the IMF to conduct a highly secretive, interdepartmental crisis simulation in late 2006 using the specifics of one of the countries rated as having among the highest

(continued…)

sector, but also in either the financial or fiscal sectors. As noted by SPR, "[t]hese combination effects underscore how balance sheet weaknesses in one sector may get amplified by weaknesses in other sectors, making crisis more likely when the country is hit by shocks." The relative success of the Vulnerability Exercise suggests that greater interdepartmental collaboration and the integration of multilateral with bilateral surveillance should be key elements in efforts to overcome some of the weaknesses of bilateral surveillance.[25]

Figure 3. Vulnerability Exercise
(Sectoral vulnerabilities in emerging markets as of September 2007 1/)



Source: IMF (2009c).

1/ Countries within circles were identified as having "medium" or "high" vulnerabilities in the respective areas.
2/ Stand-by Arrangement.

45. **The timing, and perhaps the process of adopting the 2007 Bilateral Surveillance Decision may have undermined surveillance efforts in some emerging markets.** First, the discussion leading to the adoption of the 2007 Decision may have distracted the Board and Management from the evolving crisis. Also, the authorities in several member countries believed that the timing, if not the content, of this decision was unduly influenced by the interest of certain large member countries. Finally, the Decision's focus on exchange rate

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vulnerability. The country was eventually hit hard by the crisis, in a sudden stop scenario as envisioned in the simulation, and came to the Fund for financing support.

[25] In 2009, staff prepared a paper that showed that using data that had been available in 2006, the new vulnerability framework for advanced economies would have pointed to the United States, United Kingdom, and Iceland as having a high risk of financial crisis in 2007. This result is tempered by the fact that the framework was developed with the benefit of hindsight. But the question still arises of whether earlier inclusion of the advanced countries might have provided clues about the need to take corrective actions.

misalignments led to tensions between Fund staff and the country authorities in a number of cases. Thus, as of December 2008, the Article IV Consultations for several countries had been significantly delayed by up to 2½ years, owing to "ongoing internal discussion on the implementation for the 2007 Surveillance Decision." (EBD/08/114, 12/23/08). These delays occurred during the most critical period in the run-up to the crisis.

46. **Some emerging markets, particularly those with traditional macroeconomic vulnerabilities, were the recipients of some of the best of the IMF's surveillance in the run-up to the crisis**. That is, the IMF gave clear, consistent warnings on vulnerabilities related to: overheating, large current account deficits, credit booms, unsustainable debt build-ups, and financial practices such as foreign exchange lending to households. The role of foreign banks was also an issue in many countries, albeit a more ambiguous one. Foreign banks brought funding and expertise, but over-reliance on foreign parents was deemed a risk in some cases.

47. **Nevertheless, the overall messages were still generally positive, even for some of the most crisis-prone countries**. Furthermore, the focus was primarily on domestic vulnerabilities, not those associated with spillovers or contagion. Some country authorities noted that the vulnerabilities that the Fund typically emphasized were already well known to everyone, and that many of them played little role in the crisis that actually took place.

48. **The cases of Hungary, Ukraine, and Latvia provide illustrations of bilateral surveillance in emerging markets with signs of overheating**. All are examples of good identification of many of the risks and vulnerabilities that exacerbated the crisis impact. However, in Hungary, the headline message became somewhat more positive shortly before the crisis struck (in part reflecting policy measures that the Hungarians had taken to address some of the overheating risks). In Ukraine, however, the message remained one of concern. Box 3 describes surveillance in Latvia, highlighting the apparently adverse impact of the 2007 Decision on Bilateral Surveillance.

49. ***Hungary* was one of the first emerging markets to be hit hard by the crisis** (in October 2008, the IMF and other institutions announced a $25 billion financing package). Hungary's surveillance prior to the crisis benefitted from an FSAP update in 2005. The FSSA stated that "[w]hile financial soundness indicators for the banking system have evolved well overall, potential risks have emerged that should be carefully monitored and appropriately addressed." Risks cited included the rapid growth of unhedged foreign currency borrowing by households, the overall rapid loan growth, and banks' exposures to external developments through a growing reliance on foreign funding. While the stress tests broadly found that the majority of banks could withstand substantial market or credit shocks, the staff urged the supervisors to continue developing macroprudential surveillance approaches, including stress testing. Article IV staff reports, at least until 2007, also struck an appropriately concerned tone about Hungary's vulnerability and potential risks.

Box 3. Latvia: The Challenges of Delivering Good Surveillance

Latvia experienced among the world's fastest growth rates in the years up to the crisis, with wages doubling in the three years until the crisis, excess demand fueling a real estate bubble, and the current account deficit growing to more than 20 percent of GDP. When the global crisis erupted, resulting in a sudden stop of capital inflows (and nonresident deposit outflows) that had financed the boom, these vulnerabilities created a perfect storm. Latvia suffered one of the most severe economic contractions in the world, with real GDP falling by 18 percent in 2009.

The tone of the Article IV staff reports became increasingly alarmist from 2004 on, sending clear messages of concern about overheating, massive imbalances, and banking system vulnerabilities. A March 2007 FSAP update further supported an already strong focus on macro-financial linkages and systemic risks in the banking sector. Many of the financial sector risks and vulnerabilities missed by mission teams on larger countries with similar problems (e.g., United States, United Kingdom, Ireland, and Spain) were clearly highlighted in the case of Latvia. Staff also brought cross-country experiences on capital account shocks to the discussions with the authorities.

An interdepartmental working group was formed in early 2007 due to IMF staff's concerns about Latvia's vulnerabilities. The group (including EUR, FAD, MCM, PDR, and RES) prepared a series of analytical notes to keep Management informed, performed high-frequency monitoring of the economy, and developed contingency plans. This represented one of the best examples of effective interdepartmental collaboration in the run-up to the crisis.

So what could go wrong with this scenario of "good" surveillance? The timing of the 2007 Bilateral Surveillance Decision. In practice, despite a multi-faceted principle of ensuring external stability, implementation of the Decision typically focused on determining whether the real exchange rate was far from its medium-term equilibrium. In Latvia's case, this led to an over-emphasis on the level of the exchange rate (and associated "labeling"), creating a rift in communications and traction with the country authorities.

Many observers thought that Latvia was being used as an example to prove that the IMF was not just singling out China on exchange rate issues. The exchange rate characterization was a particularly heated issue for Latvia, which had successfully maintained a fixed exchange rate peg to the euro during its short history of economic independence. Thus, the application of the 2007 Surveillance Decision led to the non-issuance of the 2007 Article IV staff report and a postponement of the Board discussion, just at the most critical juncture for the Latvian economy.

In the aftermath of the crisis, a €7.5 billion support package from the international community (including the IMF) helped the country to weather the worst of the crisis. Latvia's economy stabilized, pressures on the exchange rate abated, and the fixed exchange rate peg was maintained. Latvia instead pursued an "internal" devaluation, with wage and price deflation and structural reform aimed at strengthening the country's competitiveness.

50. **The tone of the overall message, however, became more upbeat by 2007 than in the earlier years.** While noting that the twin deficits problem would keep debt ratios at elevated levels, the headline message in the 2007 Article IV Executive Summary was "[w]ith fiscal consolidation on track for 2007 and 2008, short-term risks have receded, especially due to the favorable international financial environment." Staff did discuss many of the earlier risks again, but concerns were downplayed more. In addition, neither the FSAP nor the Article IV highlighted the need to strengthen liquidity management or to formalize crisis management arrangements (both of these recommendations were subsequently conveyed to the authorities only in late 2007). Finally, while balance sheet analysis had been used in the 2006 Article IV to assess risks and vulnerabilities, there was no update or follow-up in 2007, a point stressed by an Executive Director in the corresponding Board discussion.

51. ***Ukraine* was also severely affected by the crisis, with the impact felt earlier than in many other emerging markets.** Over many years, the IMF stressed that the credit boom, increasingly in foreign currencies, raised concerns about the banking sector's ability to cope with downside risks; that capital inflows depended on confidence and could be reversed; and that greater exchange rate flexibility was warranted but must be implemented carefully. To address those risks, the IMF urged the upgrading of the banks' capacity to deal with risks. It highlighted financial soundness indicators that suggested vulnerability. In a 2006 Selected Issues Paper, staff offered recommendations to address the foreign-currency induced credit and liquidity risks arising from the dollarization of loans and the ongoing credit boom. Importantly, the IMF avoided the reassuring language that muted the thrust of warnings in many other countries.

52. **The Fund's surveillance was sometimes less effective in those emerging markets with less pronounced macroeconomic vulnerabilities.** This is illustrated in the following by the cases of Mexico and India, where the focus and policy prescriptions were oriented toward medium-term structural issues, with perhaps insufficient regard to mitigating near-term risks and vulnerabilities.

53. ***Mexico* had a more recent record of macroeconomic and financial stability, with only small current account deficits in the years up to the crisis.** But this didn't prevent the country from suffering severe, largely indirect effects of the crisis. Mexico was hit with simultaneous declines in demand for its manufactured goods exports, workers' remittances, tourism, and foreign investment inflows. Liquidity pressures emerged in some market segments, and sizable foreign bank ownership increased the transmission of external shocks.

54. **Did the IMF's messages strike the right balance in the case of Mexico?** Given Mexico's strong performance, the 2006 Article IV discussions focused on structural reforms more than on macroeconomic or financial vulnerabilities. Although believing that the near-term outlook was positive, the IMF rightly noted the uncertainties related to the U.S. economy and global liquidity conditions. A 2006 FSAP update specifically highlighted the risks of the considerable share of government debt with short remaining maturities, "making Mexico vulnerable to tightening of global liquidity or to a loss of confidence …" But given the strong linkages of the Mexican economy with the United States, significantly more emphasis on preparing for the possibility of adverse spillovers or contagion would have been expected.

55. **While *India* experienced a sell-off in financial markets and curtailed external financing, the country was among the first to recover from the global crisis.** Annual growth, albeit down from the more than 9 percent of earlier years, remained at almost 6 percent in 2009, when many other countries suffered contractions. Part of India's success in weathering the crisis, according to some senior officials, could be attributed to the country's conservative banking sector practices and gradual approach to capital account liberalization.

56. **But in 2006–07, the IMF was recommending that India continue to move forward on capital account liberalization and financial market development**. In the 2006 Article IV staff report, against a background of rapid credit growth and housing price increases, "[s]ecuritization can be better developed as an important avenue for banks to manage balance sheet risks. Streamlining capital requirements for mortgage-backed securitization products … and removing legal impediments to the secondary market trading of such securities would promote market development." And in the 2007 Article IV staff report, after India had taken measures to tighten controls in the face of heavy capital inflows and market turbulence, the Staff Appraisal states that "[t]he use of capital controls for macroeconomic management should be avoided, as they could affect investment adversely." The Governor of the Reserve Bank of India delivered remarks, drawing from the academic literature, to defend India's position on capital controls (subsequently posted on the BIS website).

57. **There was a widespread perception that that the IMF regarded the accumulation of reserves as "excessive" in some emerging markets.** IMF (2003) had a chapter entitled, "Are Foreign Exchange Reserves in Asia Too High?" The chapter concluded that "reserves in emerging economies in Asia are now at the point where some slowdown in the rate of accumulation is desirable from both domestic and multilateral perspectives." Other subsequent papers reached similar or even stronger conclusions, as reserves continued to rise rapidly. As the surge in reserves continued apace, an IMF Working Paper (Jeanne and Ranciere, 2006) for example, concluded that "[f]or the Asian countries following 1997–98, however, the model suggests that the buildup in reserves has been excessive."[26] These findings, also echoed in papers written outside of the Fund, were based on empirical models that incorporated fundamental determinants of reserve holdings. But authorities in many of these emerging markets viewed their reserves as "insurance" against future crises. In the event, these authorities believed that their large reserve buffers served them well in coping with this crisis.

58. **Some presumed that the IMF's messages on reserves reflected political pressures from the advanced economies to address the global imbalances in a manner better suited to their domestic agendas**. ***China*** is perhaps the most high profile example of this perception. The IMF viewed the surging reserves and their contribution to global imbalances as symptoms of an undervalued exchange rate. According to a (non-Chinese) senior policymaker closely involved with the 2006–07 multilateral consultation exercise, the "core purpose of the Multilateral Consultation" was to pressure China for greater exchange rate flexibility.

[26] A more recent IMF working paper by Ruiz-Arranz and Zavadjil (WP/08/192), however, takes a different view after employing a more broadly-defined optimal insurance model, stating that "[e]mpirical analysis does not suggest that reserves are 'too high' in the majority of Asian countries, though China may be a special case."

59. **The adoption of the 2007 Bilateral Surveillance Decision reinforced the perception of political pressures to address exchange rate issues**. With China's exchange rate now potentially subject to being called "fundamentally misaligned," the 2007 Article IV consultation was not completed. Furthermore, while a staff report was written for the 2008 Article IV consultation, it did not go to the Board for discussion, reflecting the ongoing tensions over the implementation of the Decision.[27] It was not until 2009 that a Board discussion took place for an Article IV consultation. This was a particularly critical period during which the Article IV process was effectively suspended for one of the world's most systemically-important economies.

IV. How Did Country Authorities View the IMF's Performance?

60. **Country authorities interviewed were almost unanimous in the view that the Fund failed to warn sufficiently about the risks and vulnerabilities which led to the crisis**.[28] However, most did not blame the Fund or the individual mission teams for this failing. They admitted that most observers (including themselves and their fellow authorities) had also been overly comforted by the prolonged, benign global environment. As one interviewee put it, "Neither we nor the IMF staff exercised imagination." The few outside voices that had expressed grave concerns (Bill White and Nouriel Roubini were among the most frequently cited) were typically not heeded in the "new paradigm" of a more stable and less volatile global financial system, underpinned by rapid and unregulated innovation.

61. **Despite this failing, country authorities, in most cases, had much positive to say about the Fund and the bilateral surveillance process**. Among these positives were a high general regard for Fund staff competency and analysis. They felt that discussions with mission teams were usually constructive and of high quality, bringing useful views to the policy debate. Furthermore, most believed that the Fund's financial sector analysis had improved significantly over the years, with generally high regard for the FSAP. FSAPs had often been the catalyst to strengthen countries' financial sector policies, including spurring countries to do their own stress testing and move toward international best practices in supervision and regulation.

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[27] The opening line of the 2008 staff report reveals the extent to which the staff and authorities were trying to reach agreement on this difficult issue: "The 2008 Article IV discussions with China were held during May 10–25, 2007, December 12–18, 2007, February 14–15, 2008, and June 17–20, 2008."

[28] Survey results for IEO's *IMF Interactions with Member Countries* evaluation also indicated that only a minority of advanced and emerging market officials thought the IMF does a good job of alerting member countries about imminent external risks. While a majority of the country authorities rated the IMF's performance highly on various aspects of interactions, there were two areas which stood out because only a minority thought the IMF had performed well: (i) presenting alternative scenarios and addressing "what if" questions, and (ii) bringing quickly to the authorities' attention the implications of changing external conditions.

62. **At the same time, there were many criticisms regarding the Fund's performance prior to the crisis.** These ranged from analytical weaknesses to political biases, from the surveillance process to organizational problems.

63. **On the analytical front:**

- There was a ***general mindset that markets know best*** and financial innovation reduces risks. With that as a starting point, it would have been difficult to see the buildup of systemic risks.

- Bilateral surveillance typically ***focused on domestic policies and vulnerabilities***, offering little analysis on spillovers and contagion (even in the case of small, open economies).[29] If there was some discussion on spillovers or contagion, it focused on risks arising from emerging markets, not from the advanced economies.

- Notwithstanding improvements over the past decade, there was still an ***inadequate linking of macroeconomic and financial sector analysis***. This was also reflected in the reliance on models that did not adequately capture these linkages.[30]

- ***Balance sheet analysis*** was infrequently employed and, sometimes when used, it was done incorrectly (see below).

- While the IMF had done no worse than others, it ***had also not used its comparative advantage*** in analyzing cross-cutting global issues and identifying spillover risks.

- More use of ***cross-country analysis*** (particularly on countries dealing with similar issues) might have helped in identifying common vulnerabilities.

64. **On political biases:**

- A repeated theme was the apparent ***lack of evenhandedness*** in how the Fund treats its largest shareholders versus all others. Many country authorities believed that the Fund offered much more hard-hitting critiques of the policies of emerging markets and

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[29] This also came out of the IEO's Interactions evaluation, where a majority of respondents to a survey of country authorities wanted a greater IMF contribution to spillover analyses, yet did not rate the IMF highly for its effectiveness in this area.

[30] A survey of country authorities for the IEO's Research evaluation revealed that while a majority of country authority respondents thought that Selected Issues Papers were "somewhat useful" or "very useful" in informing the policy-making process, in those instances where they were not deemed "very useful," the most frequently cited reasons were that the analytical framework was not suited to the realities of the country or the research was too theoretical with little practical applicability.

smaller advanced countries. Meanwhile, even when there were obvious commonalities in vulnerabilities with smaller countries, the large advanced countries were given the benefit of the doubt that their policymakers, supervisors, and regulators would be able to steer their economies through any rough patches. The 2007 Decision on Bilateral Surveillance only heightened this sense of unequal treatment.[31]

65. **On the surveillance process:**

- A number of country authorities interviewed for this evaluation recognized that the Fund had identified many of the risks and vulnerabilities but typically presented these in a "laundry list of warnings, with no prioritization." That is, staff reports typically read "on the one hand (with list of economic positives first—which sets the tone), followed by on the other hand (with list of downside risks)." They asked how one should respond to such a wide-ranging list of risks, listed with no sense of probabilities or urgency.

- Policy recommendations were often obvious (e.g., tighten fiscal policy, pursue a credible and sound monetary policy, or strengthen supervision) but lacked specificity about how to implement them. According to one interviewee, "interactions on the Article IV often feel like just any other meeting I have with all those international institutions, too formulaic."

- Most authorities saw the Executive Board contribution to bilateral surveillance as minimal, as these contributions were often superficial (e.g., Summings Up were typically a fairly generic reiteration of the staff report) and usually came months after the mission team's concluding statement.

66. **Other issues frequently cited during the interviews included**:

- The general problem of ***high turnover*** was worsened by the downsizing exercise when the crisis was taking hold. In some countries, this led to a complete turnover of mission members and to periods with no mission chief.

- In almost everyone's view, the Fund must ***walk a very fine line between highlighting the risks of a crisis and actually precipitating one***. For this reason, more sensitive messages would sometimes be communicated privately and orally to the authorities, with no documented record of these concerns or warnings.

[31] This perception also came out clearly in the survey of country authorities for the IEO's Interactions evaluation; for example, 86 percent of survey respondents from large emerging markets said that surveillance was in the interest of the largest IMF shareholders. In particular, some felt that the IMF was insufficiently critical of the policies of a major shareholder.

- Many of the authorities agreed that the Fund teams clearly highlighted the domestic vulnerabilities and risks, but ***these were already known to them***.

- Finally, while the *WEO* and *GFSR*[32] pointed to many of the pertinent risks and vulnerabilities and were generally held in high regard, policymakers did not notice any warnings regarding an impending crisis. This was widely attributed to the ***overall upbeat banner messages*** that typified these documents in the run-up to the crisis.

V. Why Didn't The IMF Give Clear Warning?

67. **Various factors played a role in the Fund's failure to give clear warning in its bilateral surveillance.** In this section, these factors have been grouped into the following broad categories: analytical weaknesses, organizational impediments, internal governance problems, and political constraints. There is considerable overlap and interconnections among these categories, in that many of the more specific reasons discussed below could also be jointly placed in another category.[33]

68. **The relative importance of these factors is difficult to assess and is thus based on subjective judgment**. Analytical weaknesses seemed to play the largest role in bilateral surveillance, followed, in rough order of importance, by organizational impediments, internal governance problems, and political constraints. In the discussion of each broad category below, the more specific factors are ranked from most important to least in terms of their impact on the IMF's performance.

A. Analytical Weaknesses

69. **For bilateral surveillance, analytical weaknesses were at the core for some of the most evident shortcomings**, particularly for the largest advanced economies. In the following, three broad types of analytical weaknesses are identified: group-think/blind spots, analytical approaches, and knowledge gaps.

Group-Think/Blind Spots

70. **The fact that analytical weaknesses are given billing as the top culprit is not to imply that Fund staff lack skills or expertise**. Instead, it is in part an indication of how

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[32] Many interviewees admitted that they only had time to read the documents' Executive Summaries. While many did not read the *GFSR* due to its more technical nature, those involved with financial stability issues did read it.

[33] Annex 3 presents some relevant findings from a self-evaluation by staff from an IMF area department on the department's performance in the run-up to the crisis; staff's answers corroborate many of the findings below about the possible reasons for failure.

difficult it was to challenge the "prevailing wisdom," especially in a monoculture of macroeconomists.

- First, and perhaps foremost, was a problem with ***"group-think,"*** with many Fund staff (and much of the macroeconomics profession) believing that market discipline and self-regulation would be sufficient to stave off serious problems in financial institutions. They also trusted that "sophisticated" financial markets in advanced countries could thrive safely under light-touch regulation.

- Second, many Fund staff appeared to have fallen subject to ***intellectual capture*** by the U.S. Federal Reserve and other advanced country central banks, owing in part to greater resources and availability of information.[34]

- Third, many macroeconomists were still ***not fully convinced, until the crisis broke, that the financial sector mattered much for macroeconomic performance***. This is perhaps best exemplified by a footnote of an April 2009 IMF Working Paper (Blanchard, 2009), in which the IMF's current Economic Counselor states: "In the interest of full disclosure: This is a first pass by an economist who, until recently, thought of financial intermediation as an issue of relatively little importance for economic fluctuations…"

Analytical approaches

71. **Other problems are reflected in the analytical approaches to bilateral surveillance**. Two aspects to the analytical approach are considered here: the focus of surveillance and the tools used for analysis.

72. **On the focus of surveillance:**

- On a key blind spot, many believed that ***crises mostly arise in emerging markets***, not in the advanced economies. This could explain in part why the Fund performed better on many of the emerging markets, yet overlooked the same types of vulnerabilities in the advanced countries.

- Analysis of possible ***spillovers and contagion*** was also largely missing from bilateral surveillance, with the emphasis primarily on domestic economic issues. Staff might

[34] There is a substantial literature on cognitive biases that can affect organizational behavior (e.g., Bazerman and Moore (2009), some of which could have adversely affected the Fund's performance. For example, confirmation bias would suggest that, if people expected no crisis owing to a belief in efficient markets, say, then they noticed information consistent with that expectation and ignored information inconsistent with it. Similarly, intellectual capture is consistent with pressures to conform to the majority, one of the oldest and best established findings in social psychology research. Thus, it would be very difficult to "cry wolf" when most of the macroeconomics profession is enamored with "The Great Moderation."

have ignored other external risks to focus on the Fund's primary concern about global imbalances/disorderly dollar decline as the key risk to global stability.

- And in the latter part of the period covered by this evaluation, IMF staff may have been distracted by the ***2007 Bilateral Surveillance Decision***. While the Decision was purportedly aimed at securing external stability broadly defined, many interpreted it as focused mostly on assessing the degree of misalignment of the exchange rate, through the use of a variety of modeling techniques.

73. **On the analytical tools:**

- The ***linking of macroeconomic and financial sector analysis*** remained inadequate, despite a series of external evaluations of the Fund, since the Asian crisis, calling for enhanced macro-financial linkages in the Fund's surveillance.[35] This likely reflects the view, common among macroeconomists, that financial issues were not central, but also the lack of a proper conceptual framework for analyzing such linkages.

- Fund economists tended to hold in highest regard research that used "state-of-the-art" ***macro-models***, including for policy implications.[36] The dynamic stochastic general equilibrium (DSGE) model became the work horse for this purpose. However, DSGE models at the time introduced money and asset markets in only a rudimentary manner, thus excluding the possibility of exploring macro-financial linkages.[37] The crisis led to a recognition that these models were inadequate for this purpose, and work has begun to try to develop models which can incorporate financial frictions.

- ***Balance sheet analysis*** was also used insufficiently, despite the fact that it could better capture the risks and vulnerabilities than could a typical open-economy macro model. As one senior staff member put it, "balance sheet analysis was the missing link in macro analysis." Unfortunately, in some cases when used, it was employed with conceptual errors. Thus, great comfort was sometimes taken from the fact that the balance sheets of households appeared solid, with assets (mostly housing equity,

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[35] External Evaluation of Fund Surveillance (IMF 1999); "Report of the Financial Sector Review Group" (Lipsky Report) (FO/Dis/01/3), January 16, 2001; and "Report of the Review Group on the Organization of Financial Sector and Capital Markets Work at the Fund" (McDonough Report), November 1, 2005.

[36] The problem was widespread in the economics profession. Krugman believed that "the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth." ("How Did Economists Get It So Wrong?," *New York Times*, September 2009). More recently, Rogoff noted that "the mainstream of academic research in macroeconomic puts theoretical coherence and elegance first, and investigating the data second." (*New York Times*, July 2010).

[37] See Caprio (2010), which summarizes the work on macro-financial linkages in IMF research.

greatly inflated by bubbles in many economies) exceeding liabilities (mostly mortgages and other debt, fixed in nominal value).

- FSAPs used ***stress testing*** heavily to determine the soundness of banking systems. While stress tests can be useful as a first round examination of risks, they cannot fully capture second-round effects or nonlinear shocks, such as liquidity shocks. As a result, a number of authorities and staff admitted that stress tests could generate complacency when their limitations are not well understood.

Knowledge gaps

74. **Lack of critical data was frequently cited as an obstacle.** However, several reasons argue against this being a core reason for the Fund's performance. First, the lack of data did not prevent the Fund from praising the qualities of financial innovation (e.g., the risk-diversification features of securitization, even though it was unclear who was holding the risk). Thus, there was an asymmetry as to how the Fund dealt with missing data—it felt comfortable singing the praises of issues not fully understood, but would not raise potential risks without confirmation from difficult-to-obtain data. Second, much available data relevant to the crisis was ignored or misinterpreted (e.g., credit growth, leverage, household balance sheets).[38] Third, having massive amounts of data, say, on individual financial institutions would likely make it even harder to "see the forest for the trees." Fourth, as discussed above, the conceptual framework for understanding macro-financial linkages is still quite nascent, even more so from the viewpoint of combining high-frequency, volatile financial data with conjunctural macroeconomic data to yield reasonable assessments of vulnerability. Finally, the lack of data did not prevent the Fund from raising the alarm in some emerging markets with common vulnerabilities.

B. Organizational Impediments

75. **Organizational impediments also played a key role in the Fund's performance.** These are institutional features which evolved over time and could be thought of as effectively exogenous factors during the period of evaluation. That is not to say that they could not be corrected. This is where organizational impediments overlap with internal governance/leadership. Strong internal governance would be needed to address these impediments and change the institutional characteristics which impede the Fund's effectiveness in discharing its mandate.

76. **Perhaps the most important such impediment is the Fund's silo structure and mentality, which has been blamed for its failure to "connect the dots."** The operation in silos is widespread. It occurs between departments, within departments, and even within

[38] See Reinhart and Rogoff (2009).

divisions, adversely affecting the Fund staff's ability to learn lessons from each other's experiences and knowledge. This long-standing issue was pointed out by several internal and external reviews, most recently and forcefully in the McDonough Report (2005): "what is needed is an environment that fosters and provides incentives for close collaboration and cooperation between departments, to increase cross-fertilization between the Fund's traditional macroeconomic work and its work on financial and capital market issues, and to overcome the silo mentality that is lessening the overall effectiveness and influence of the institution as a whole."

77. **One of the most obvious consequences of these silos was the difficulty in integrating multilateral and bilateral surveillance**. Multilateral surveillance, particularly the *GFSR*, laid out many of the risks and vulnerabilities which led to the crisis. Yet discussion of these risks and vulnerabilities never found its way into the bilateral surveillance of the largest systemic financial centers. In a staff survey for the IEO's Research evaluation, almost half of respondents from area departments admitted to seldom or never using the *GFSR*, compared to only a fifth that rarely if ever use the *WEO*. While a variety of reasons were give by these respondents as to why they rarely used the *GFSR*, the most frequently cited reason was that the analysis did not lead to country-specific insights.

78. **The internal review process also tended to operate in silos.** While this process should have enabled IMF reviewers to help country teams "connect the dots," bilateral surveillance often did not seem to be informed by cross-country, regional, or global experiences. Furthermore, formal interdepartmental review took place at a very late stage in the production process. By the time other departments' comments had been received, the views of the mission team had already crystallized, and the timeframe was such that mission chiefs tried to minimize changes to briefing papers by superficially addressing comments.[39]

79. **The insular nature of the Fund is evident in some of the findings from the IEO's research evaluation**. Bringing in outside views in research was a rarity in the IMF, with about three-quarters or more of staff survey respondents noting that they seldom or never collaborated on research with IMF staff outside of their departments, other researchers outside the IMF, or country counterparts. As discussed in Caprio (2010), Fund Article IV work rarely cited IMF research (including the limited research on macro-financial issues). Citations, if any, typically were of work done in the same area department or from research done outside of the Fund. This insularity was thus another reason for the IMF's difficulties in "connecting the dots."

[39] After the crisis, the Fund attempted to change this approach by switching to shorter, punchier policy notes to be discussed informally at a much earlier stage.

80. **The predominantly macroeconomist culture of the Fund, particularly in area departments, could also be viewed as an organizational impediment**.[40] This led to a culture clash within the Fund between the macroeconomists and the financial sector specialists, with macroeconomists tending to be more enamored of modeling and theory and financial sector specialists relying more on judgment and experience. The crisis has made abundantly clear that, if the Fund is to effectively intergrate financial sector issues into bilateral surveillance, both approaches are needed on mission teams; yet there were not enough financial sector experts (particularly those with experience) to participate in critical missions. This lack of sufficient financial sector expertise also meant that FSAPs and updates were done only infrequently

C. Internal Governance Problems

81. **Internal governance refers to the management or leadership of the IMF staff, with the aim of creating an operating environment conducive to most effectively meeting the IMF's mandate**. Strong internal governance could help to address organizational impediments, confront political constraints, and mitigate analytical weaknesses. Among the most important issues for organizational effectiveness is the staff perception of incentives, job performance expectations, fairness of rewards and punishment, flow of communication, Management support, and the examples set by Management. This evaluation is only able to touch lightly on these issues, although staff interviews clearly suggest that these issues are among the most important in the IMF's performance.

82. **Staff repeatedly stressed that incentives were misaligned**. In particular, there were few incentives for contrarian views, and faulty (but optimistic) assessments were not penalized. Several senior staff even felt that strong contrarian views (particularly if not aligned with those of Management) would run the risk of ruining one's career. Thus, views tended to "gravitate toward the middle" and "advice becomes procyclical." This is clearly indicative of a perception that staff would not be supported by Management if they dissented from the prevailing mainstream views.

83. **For area department economists, there was a strong perception of disincentives to "speak truth to power."** As one former senior staff member put it, IMF area departments were "unduly captured by countries" that they work on. Analytical work was geared to "justify" the policy proposals. "Staff in the trenches don't like this but their bosses do." All this was "driven by the agenda of getting on well with" country authorities.

84. **Incentives also inhibited collaboration and information sharing**. Again, from the Research evaluation staff survey, more than 60 percent of respondents agreed that there was

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[40] The Fund has also been criticized for the fact that so many of the macroeconomists come from a select subset of American and British universities, as this could potentially undermine diversity of views.

little incentive to share knowledge and data about specific countries within the IMF (see also Annex 3 on staff's view on such incentives). Such a perception would clearly have an adverse impact on bilateral surveillance and the ability to draw lessons from cross-country experience or even historical experience. This detrimental environment for learning was futher exacerbated by the high turnover of staff on mission teams, implying a constant need to quickly get up to speed on country-specific issues for new mission members (but lack of incentives for previous mission members to put in the time to fully share their knowledge).[41] According to one senior staff member, "the Fund operates as little fiefdoms," and staff attributed the failure to integrate bilateral and multilateral surveillance in part to such turf battles.

D. Political Constraints

85. **What role might political constraints have played in the IMF's performance on bilateral surveillance?** The answer to this is multi-faceted, as there are many dimensions to political constraints. They could include explicit requests to change specific messages, implicit pressure through incentives, perception of constraints leading to self-censorship, direct demands by authorities to change mission members, or political pressures on the institution to pursue certain policy initiatives, among others. All of the above played some role in adversely affecting the conduct of bilateral surveillance.

86. **On the messages from bilateral surveillance, the perceived degree of explicit or implicit political pressure from authorities varied significantly by country**. On the United States, for example, staff and Management never indicated any overt pressure to change what the mission team was saying. On some other large advanced economies, however, staff claimed that the authorities took a heavy-handed approach in dealing with mission teams, exerting explicit pressure to tone down critical messages. As one staff member who worked on a large country explained, "it was hard to give difficult messages to the authorities even if the team had the analysis … the concluding meetings were really just negotiation sessions on language." Indeed, some mission chiefs had been reportedly removed from their country assignments at the request of the authorities. In contrast, teams seemed more comfortable in presenting hard-hitting analysis to smaller advanced and emerging markets, confirming the authorities' belief that there was a lack of evenhandedness in bilateral surveillance.

87. **Self-censorship, however, appeared to be a significant factor even in the absence of overt political pressure**. Many staff strongly believed that there were limits as to how critical one could be regarding the policies of the largest shareholders. One former senior staff member explained his views on Fund surveillance by stating that candid, hard-hitting

[41] This high turnover was a frequent complaint of the country authorities (see Section IV above).

surveillance in the largest shareholders "…does not exist … you cannot speak truth to authorities. … you're owned by these governments."

88. **Perhaps an equally important but less obvious form of political constraint arose from the perception that the largest shareholders were throwing their weight behind certain Fund policy initiatives**. This essentially established the balance of power between IMF Management and senior officials from these countries. As one member of Management explained, one has to pick ones battles carefully. Among the policy initiatives believed by many staff and authorities to be more influenced by politics than analysis are the 2007 Bilateral Surveillance Decision and the almost singular focus on global imbalances as the key risk. One senior staff member expressed this view quite strongly, saying "[t]he analytical work on [a given country] was … constructed with a political purpose in mind."

89. **Finally, and not insignificantly, the downsizing in 2007–08, even as the crisis was unfolding, was perceived by many as succumbing to the pressures of some of the largest shareholders**. The toll of this restructuring is nicely evidenced in the Fund's own words. A December 2008 Board document on delayed completion of Article IV Consultations simply states "[t]he Article IV consultations with Ireland and Luxembourg are delayed due to staffing constraints, as a result of the downsizing exercise and the restructuring at European Department …." This rather surprising admission occured right in the midst of the worst global crisis since the Great Depression, affecting two of the hardest hit economies.

VI. Looking Ahead

90. **In considering recommendations, the aim is not to enable the IMF to "predict" the next crisis**. It is rather to strengthen the institution's environment and analysis to better allow the IMF to discern risks and vulnerabilities before future crises (perhaps of a very different nature) occur and get the message out to its membership in time to potentially prevent or mitigate the impact of a crisis. The Fund needs to cultivate a culture which is proactive in crisis prevention, rather than primarily reactive in crisis response and management.[42]

91. **In this regard, the Fund has already taken several steps to address the weaknesses evident in the run-up to the crisis**. Among these are the inclusion of advanced economies in the Vulnerability Exercise, the launching of the Early Warning Exercise, increased research efforts to understand macro-financial linkages, preparation of spillover reports to analyze spillovers and contagion from systemic economies, and the recent decision to make financial stability assessments under the FSAP a mandatory part of surveillance for the 25 most systemic financial sectors. But the Fund also took many such steps after the

[42] As one Executive Director said in the aftermath of the Asian crisis, "We seem to be stronger in cleaning up after the storm than clearing the decks in time."

Asian crisis, which, at least on paper, should have helped the Fund to see the build up of risks leading to the more recent crisis. Thus, it is still too early to judge whether these new measures will be effective in warning/mitigating the impact of a new and potentially different type of crisis.

92. **The following recommendations are very general in nature.** Each is then followed by a few more specific suggestions as to how to these could potentially be implemented, but these suggestions are neither exhaustive nor neccesarily the only way to follow through. Admittedly, the problems they are meant to address are very complex and interconnected and will, therefore, not yield easily to any reforms. But these suggestions can be seen as a starting point for further reflection.

Create an environment which encourages candor and diverse/dissenting views

- Change the monoculture of the Fund through greater professional diversity among staff, including more financial sector experts, analysts with policy-making backgrounds, and more varied educational backgrounds.
- Reward "out-of-the-box" thinking, rather than the current incentive system which is perceived to award conformity.
- Make staff reports truly the report of staff, not the Executive Board, and encourage candid assessments.
- Ensure that Summings Up of Executive Board discussions reflect areas of significant disagreement and minority views.
- Create independent risk assessment unit(s), with the sole purpose of developing risk scenarios and analyzing tail risks. Management and senior reviewers should ensure that this analysis is appropriately incorporated in the relevant bilateral surveillance.

Strengthen incentives to "speak truth to power"

- Establish a framework for greater accountability of Management and senior staff reviewers, including the development of performance criteria on the quality and outcomes of IMF bilateral surveillance.
- Have Management and senior staff make a clear commitment to protect staff from negative ramifications when it disagrees with the authorities based on well-founded analysis.
- Conduct regular IMF-wide self-assessments that would look at the health and functioning of the organization, considering factors like morale, communication, teamwork, and diversity. Conducting such assessments, then following through,

signals that leadership is committed to establishing a positive climate. Hold managers responsible for improving the command climate.

Better integrate financial sector issues into macro

- Expand and strengthen the financial sector expertise in the Fund, in both MCM and area departments.

- Give MCM sign-off power on reports, akin to that for SPR, for systemically-important countries.

- Strengthen the FSAP along the lines of the proposed steps in IMF (2009b).[43] These steps would help to overcome the FSAP limitations noted in Annex 4 and strengthen the role of the FSAP in reducing the likelihood of future crises and mitigating their consequences. In particular:

  - FSAPs (and their stress tests) should consider global and regional developments and risks, together with more severe shocks, including by drawing on the new Early Warning Exercise, the *WEO,* and *GFSR*;

  - candor and clarity should be enhanced in the FSSAs, along with an explicit discussion of methodological caveats regarding stress test results;

  - greater attention should be given to the role of nonbank institutions/markets and financial conglomerates in the assessment of financial stability; and

  - work should continue on strengthening the modeling and methodology, including for liquidity risk, second-round feedback effects, contagion, and cross-border transmission channels.

Overcome silo mentality, insular culture

- Establish strong interdepartmental collaboration at an early stage of the Article IV process; ensure that substantive differences in departments' views are addressed as they arise.

- Ensure strong oversight by holding reviewers accountable for "connecting the dots" in terms of integrating multilateral and bilateral surveillance, taking account of alternative views, bringing the Fund's cross-country experience to bear, and having policy consistency across countries/regions on cross-cutting issues.

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[43] See, in particular, pp. 23–24, 26–28, 30, 32–34.

ANNEX 1. ANATOMY OF THE CRISIS

This annex is drawn from the IMF's own ex-post analysis. According to IMF staff (IMF, 2009c and 2009d), the following factors contributed to the crisis:

Macroeconomic forces: A long period of high growth, low real interest rates, and limited volatility led to excessive optimism about the future, pushed up asset prices and leverage, and prompted a search for yield and an underestimation of risks.

- **Monetary policy:** Short-term interest rates were low, reflecting accommodative monetary policy. Central banks and financial regulators largely focused on inflation and aggregate activity, thereby paying insufficient attention to the build-up of systemic risk associated with rapid asset price increases (particularly in housing markets) and growing leverage.

- **Global imbalances:** These too played a role in the build-up of systemic risk. High saving in Asia and oil-surplus countries had as their counterpart large capital inflows to the United States and Europe. This contributed to low long-term interest rates, underpinning the rise in asset prices, leverage, a search for yield, and the associated creation of riskier assets.

Global architecture: A fragmented surveillance system compounded the inability to see growing vulnerabilities/risks. Multilateral coordination and collaboration lacked sufficient leadership to achieve the needed response to systemic risks. On financial regulation, there were no *ex ante* rules governing cross-border resolution or burden sharing. The absence of broad liquidity insurance implied an inadequate international response when interbank markets around the world froze up.

Financial system: New structures and new instruments were riskier than they appeared. A presumption that these instruments dispersed bank risk ignored the larger fact that risk remained concentrated in entities linked to the core banking system. Market discipline failed amid the prevailing optimism, due diligence was outsourced to credit rating agencies, and a financial sector compensation system based on short-term profits reinforced risk-taking.

- **Regulatory perimeter:** A lightly regulated and generally unsupervised shadow banking system in the United States had grown as large as the formal banking system. Banks evaded capital requirements by pushing risk to affiliated entities in the shadow system. Regulation was not equipped to see risk concentration and the flawed incentives behind the financial innovation boom. There were shortcomings in consolidated supervision and underwriting standards.

- **Market discipline:** Due diligence—in assessing counterparties and collateral—failed. Supervisory and regulatory incentives led to too much reliance on credit ratings whose methodologies were inadequate and inappropriate when applied to

complex structured products, and thereby failed to capture the risks. Ratings agencies were also subject to conflicts of interest. Market discipline was eroded by the "too big to fail" nature of the largest most interconnected institutions. The complexity and opacity of structured credit instruments undermined market discipline. Risk management practices of many financial institutions were deficient, reflecting shortcomings in judgment and governance: the users of risk management models used poor business judgment, and warnings by risk managers were sometimes ignored or underestimated by senior management.

- **Pro-cyclicality:** A constellation of regulatory practices, (fair value) accounting treatment of structured products, ratings, and incentives magnified the credit boom and exacerbated market turbulence. Some recent regulatory initiatives (such as Basel II) may have also intensified pro-cyclical behavior.

- **Information gaps:** Financial reporting was inadequate, understating the risks borne by the reporting entities. There were extensive gaps in regulators' and markets' data and understanding of underlying risks. These included risks embedded in complex structured products, the degree of leverage and risk concentration in systemically-important financial institutions, the difficulty of assessing liquidity and counterparty risk, and on-balance sheet risks and links with off-balance sheet risks. Shortcomings in valuation models and practices played a role.

Crisis management: Cross-border differences in emergency liquidity frameworks and inadequacies in crisis management frameworks, including deposit insurance, played a role in propagating the crisis.

ANNEX 2. WHAT DID THE IMF REGARD AS BEST PRACTICE FOR FINANCIAL SECTOR SURVEILLANCE?

A taskforce was formed in 2006 to examine how the IMF could strengthen its financial sector analysis and better integrate this into Article IV surveillance. The report of the taskforce[44] laid the basis for a more systematic approach to ensuring adequate coverage of financial sector issues in bilateral surveillance. Notwithstanding the guidance for future surveillance, the report provides some examples of best practices which, in retrospect, appear completely off the mark:

- **Iceland**'s developments from 2003–06 "provide a useful illustration of the importance of a proper analysis of the relationships between financial markets, the financial sector, and the broad economy." After a lengthy description of domestic monetary policy and the carry trade, the report concludes that "[f]ortunately, in Iceland's case, and as found by the 2006 Article IV mission, hedging behavior and generally sound balance sheets and asset-liability management made the financial system relatively robust to the recent shocks."

- In a case study of **Germany**, which provides an example of the linking of structural and cyclical analysis, the report found that "[c]omparisons with "peer" countries are powerful evidence. The comparison of profitability trends hit a raw nerve with the authorities but was successful in sparking a debate about a system that had traditionally been seen as very stable and strong in comparison with those of neighbors." A senior IMF official interviewed for this evaluation admitted that one of the key crisis red flags that the IMF missed was the profits in the U.S. and U.K. banking sectors.

- In a box entitled, "Best Practice Examples of Financial Sector Surveillance in Recent Article IV Reports," the **United States** is highlighted as one such example. The taskforce finds that "[t]he 2006 staff report for the United States is a good example of both identification of risks and linkages as well as usage of analytical tools. Current risks arising from the cyclical position and level of macro-imbalances are clearly described as are the supervisory challenges in one of the world's most sophisticated and complex financial systems. … Additionally, there is a focus on international linkages—potential U.S. spillovers to the rest of the world's financial markets. Two SIPs also focus on financial sector topics." Based on its analysis, the staff concludes with the reassuring messages, among others, that "…a range of indicators suggested that systemic risks were at a low ebb;" "Financial sector risks related to household borrowing appeared relatively manageable;" and "The U.S. financial sector has proven innovative and resilient in recent years. The system appears well-positioned as the credit cycle turns …"

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[44] "Report of the Taskforce on Integrating Finance and Financial Sector Analysis into Article IV Surveillance" (SM/07/57), February 2, 2007.

ANNEX 3. AN AREA DEPARTMENT SURVEY OF STAFF

In a self-evaluation of what went wrong, one of the area departments whose countries were most affected by the crisis conducted a survey of staff in October 2009. The following highlights the staff's views on some of the issues most relevant to this evaluation.

On the substance of country work, just under half the staff members thought that the area department was strong or very strong in assessing vulnerabilities. The toolkit for macro-financial analysis was often cited as an analytical impediment.

On where the area department should place the priority in country work, a staggering 98 percent of staff thought it important or very important to prioritize work on vulnerabilities and crisis risks, more so than even fiscal or monetary policy. Write-in responses to the question of priorities repeatedly stressed the need to do more work on cross-country linkages, spillovers, and integration of regional with country-specific perspectives.

On the main problems in [the area department's] surveillance work and ways to fix them:

- "relations with the authorities. We do not have the incentives to be too critical, especially publicly and to differ substantially. More support from the Front Office/Management, less pressure to make authorities happy, more consistent 'ruthless truth telling' across all countries, not just a few."
- "more formal and informal communication with functional departments, mainly MCM …" "The main problem is how to bring value added to large economies, which have large staffs of highly trained economists. The solution is to focus on the Fund's comparative advantages, namely cross-country work, spillovers, and global consistency."
- "no courage to take on countries, especially G7. For years we praised [a large systemic country] for its policy framework and now we have egg on our face"

On leadership and communication, just under half the economists agreed with the statement "your ideas and opinions are considered and listened to."

On incentives, fewer than a third agreed that the area department gets its voice heard in the interdepartmental review process for policy papers, the WEO, the GFSR, etc. As for why this is the case, almost half believed that incentives (e.g., one gets little credit for good comments) were a serious hurdle. Meanwhile, almost three-quarters of respondents agreed with the statement that "cross-country work faces several constraints, including managerial complexity, incentives, resources, and priority of bilateral relations." Incentives, for example, were cited by about 85 percent of respondents as a hurdle to producing cross-country work.

On the silo nature of the Fund, only one-fifth of survey respondents agreed that there was sufficient learning from peers across country teams (and this lack of collaboration within a department bodes poorly for across-department collaboration).

On intellectual leadership, well over half the respondents felt that department managers had not provided the intellectual leadership to get the job done to a high standard. Some respondents felt that the Fund's downsizing exercise had impeded the ability to provide intellectual leadership. For example, one respondent wrote that "the [conjuncture] of the restructuring and the crisis has had disastrous consequences on the leadership provided by the department."

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