CHAPTER

3 IMF Messages in the Run-Up to the Crisis

A. Overview of Main Findings

11. During the period 2004 through the start of the crisis in mid-2007, the IMF did not warn the countries at the center of the crisis, nor the membership at large, of the vulnerabilities and risks that eventually brought about the crisis. For much of the period the IMF was drawing the membership's attention to the risk that a disorderly unwinding of global imbalances could trigger a rapid and sharp depreciation of the dollar, and later on the risks of inflation from rising commodity prices. The IMF gave too little consideration to deteriorating financial sector balance sheets, financial regulatory issues, to the possible links between monetary policy and the global imbalances, and to the credit boom and emerging asset bubbles. It did not discuss macro-prudential approaches that might have helped address the evolving risks. Even as late as April 2007, the IMF's banner message was one of continued optimism within a prevailing benign global environment. Staff reports and other IMF documents pointed to a positive near-term outlook and fundamentally sound financial market conditions. Only after the eruption of financial turbulence did the IMF take a more cautionary tone in the October 2007 *WEO* and *GFSR*.

12. At different times during the evaluation period, the *GFSR* identified many of the risks that subsequently materialized, but not in an effective manner. Warnings about these risks were seldom incorporated in the IMF's banner messages. They were given in general terms, without an assessment of the scale of the problems or the severity of their potential impact, and were undermined by the accompanying sanguine overall outlook. To a large extent this was due to the belief that, thanks to the presumed ability of financial innovations to remove risks off banks' balance sheets, large financial institutions were in a strong position, and thereby, financial markets in advanced countries were fundamentally sound. This belief was strengthened by the extended period of global growth with low financial volatility that had generated the idea that serious recessions could be avoided, and that the global economy had entered a period of "Great Moderation." Another source of complacency was the result of stress tests and other analytical techniques in use that could not capture the vulnerabilities created by new and complex financial instruments.

13. The IMF missed key elements that underlay the developing crisis. In the United States, for example, it did not discuss, until the crisis had already erupted, the deteriorating lending standards for mortgage financing, or adequately assess the risks and impact of a major housing price correction on financial institutions. It was sanguine about the propensity of securitization to disperse risk, and about the risks to the financial system posed by rising leverage and the rapid expansion of the shadow banking system. In fact, the IMF praised the United States for its light-touch regulation and supervision that permitted the rapid financial innovation that ultimately contributed to the problems in the financial system. Moreover, the IMF recommended to other advanced countries to follow the U.S./U.K. approaches to the financial sector as a means to help them foster greater financial innovation. The IMF did not sufficiently analyze what was driving the housing bubble or what roles monetary and financial policies might have played in this process.[8] Furthermore, the IMF did not see the similarities between developments in the United States and United Kingdom and the experience of other advanced economies and emerging markets that had previously faced financial crises.

14. The IMF appropriately stressed the urgency of addressing the persistent and growing global current account imbalances, but it did not look at how these imbalances were linked to the systemic risks that were building up in financial systems. The IMF focused on the risks of an exchange rate crisis characterized by a rapid pullout from dollar

[8] By mid-2006, concerns about the bursting of the housing bubble were widespread. For example: "The front pages of *The Wall Street Journal* and other newspapers, and the covers of *The New Yorker*, *The Economist,* and virtually every news magazine and newspaper in America have heralded the bursting of the 'housing bubble'" (Case and Shiller, 2006). As early as 2004, the U.S. Federal Bureau of Investigation was warning of a mortgage fraud "epidemic."

assets, leading to a disorderly decline in the dollar and a spike in interest rates.[9] It attempted to tackle this issue through a multipronged strategy, using its instruments of bilateral and multilateral surveillance and the newly-created multilateral consultation process.[10] Its recommendations included fiscal consolidation in the United States, greater exchange rate flexibility in China, structural reform in the euro area, financial sector reform in Japan, and increased domestic spending in oil-producing countries.[11] A second consultation on financial sector issues did not garner sufficient support from concerned member countries and, therefore, was not undertaken.

15. There were elements of good surveillance in many emerging and other advanced economies, but they were mostly focused on traditional macroeconomic risks and not necessarily on those that materialized in the crisis. The IMF urged countries to take advantage of favorable conditions to undertake measures that would make the country more resilient in the event of a shock. In some of these countries the IMF also gave advice on policies to enhance their financial sector regulation and supervision. At the same time, the IMF paid too little attention to potential spillovers or contagion from advanced economies, despite concerns raised by the April 2006 *GFSR*.

16. The key findings from the three pillars of the evaluation, discussed below, are as follows: Broadly speaking, multilateral surveillance did not convey a clear message to the membership about the urgent need to address financial sector risks, even though it identified some of the relevant risks. Bilateral surveillance in the United States and United Kingdom, the systemic financial centers most directly at the core of the crisis, failed to highlight the relevant vulnerabilities. On the other hand, the performance of bilateral surveillance in other countries was more mixed, with better examples in several emerging markets with traditional macroeconomic vulnerabilities but less laudatory results in many other countries.

[9] In the event, a reduction in global imbalances took place during the financial crisis as U.S. private absorption fell. Meanwhile, the dollar became the safe haven, and global interest rates hit new lows.

[10] The multilateral consultation was designed to foster debate and policy actions on a problem of systemic importance among key actors. China, the euro area, Japan, Saudi Arabia, and the United States participated in the first (and only) multilateral consultation in 2006–07 that focused on facilitating the reduction of global imbalances.

[11] As background for the 2006–07 multilateral consultation, a team of IMF financial experts examined the impact of a disorderly adjustment on the financial sectors in the United States and the euro area. Their paper sketched out the contours of a systemic crisis (Annex 4 provides some of the content of this paper). However, there was no follow-up to the concerns expressed in this background paper.

B. Multilateral Surveillance[12]

17. Multilateral surveillance did not sound the alarm in advance of the crisis, even though the IMF identified some of the relevant risks. Until October 2007, the IMF's banner messages, especially on the global economic outlook, were typically sanguine, as illustrated by the quotations in Box 1. Only after the first signs of the crisis did the October 2007 *WEO* and *GFSR* warn that there were risks that the outlook could be "derailed" by financial turmoil, that financial markets had become more volatile, and that a rapid deleveraging and retrenchment from riskier assets was taking place. Nevertheless, even then the IMF believed that the financial crisis would remain contained because the large financial institutions could weather the severest stress. The IMF grew more concerned as the crisis evolved. The April 2008 *GFSR* pointed out that some large financial institutions might have solvency problems, estimating that losses in the financial sector could be as high as $1 trillion—an estimate that senior officials in some advanced economies criticized as being alarmist. However, by the summer of 2008, the IMF became more confident in its public statements that the crisis had been contained (although many staff remained concerned about emerging vulnerabilities).

18. The *GFSR* and other documents discussed many of the relevant risks, but concerns were muted by the reassuring headline messages that financial markets and large financial institutions were fundamentally sound. Over the evaluation period, various *GFSR* issues warned that abundant liquidity was boosting asset values beyond levels justified by fundamentals and was making investors complacent; that a structural shift in global financial markets—via financial innovations—was reallocating credit risk from banks to nonbanks, with potential implications for financial stability; and that the proliferation of complex, leveraged financial instruments made liquidity risk increasingly relevant. But the risks flagged in the *GFSR* did not feature prominently in the IMF's banner messages. The lack of a coherent macro-financial storyline to underpin the laundry list of risks, and the dominance of the *WEO's* messages—which were more sanguine than those in the *GFSR*—in the IMF's public pronouncements, created an impression that the IMF was warning only about global imbalances and inflation. This was the message heard by authorities, other stakeholders, and most staff interviewed for this evaluation.

19. A number of Board members took issue with the upbeat banner messages of the flagship documents before the crisis broke, as did a number of staff that had participated in the internal review. "The truly damaging financial bubbles have been those that persisted long enough for almost

[12] This section draws on Banerji (2010).

Box 1. Multilateral Surveillance: A Rosy Picture of the Global Economy

The WEO and GFSR highlighted some relevant vulnerabilities over the course of the evaluation period, but not forcefully enough. Instead, the key messages that came out of the flagship documents were upbeat, supporting the widespread belief in the "Great Moderation" and leading to complacency about evolving risks and vulnerabilities:

According to the *WEO*, the world economic outlook was "among the rosiest" in a decade (April 2004); expected to be "one of its strongest years of growth" unless events take "an awful turn" (September 2004); in the "midst of an extraordinary purple patch" (April 2006); and "strong" (September 2006); all the way up to April 2007 when the report forecast that "world growth will continue to be strong" and opined that global economic risks had declined since September 2006.

Public statements by senior officials—largely based on the *WEO*—reiterated these messages; as late as August 2007, Management considered the global economic outlook to be "very favorable." Even in the summer of 2008, Management was prematurely reassuring, with "… the U.S. has avoided a hard landing" and "the worst news are behind us." Meanwhile, at the July 2008 WEMD session, the message was that "risks of a financial tail event have eased."

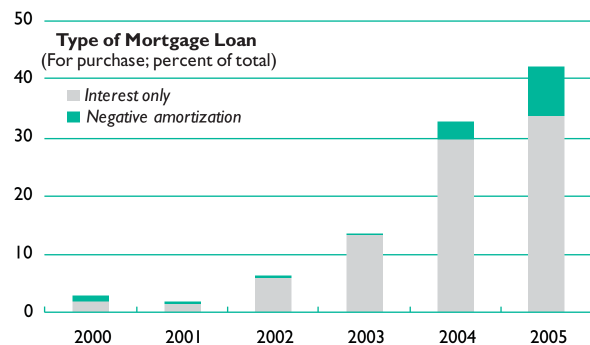
The *GFSR* echoed these sentiments, declaring that the global financial outlook was "enjoying a 'sweet spot'" (April 2004); that it was "hard to see where they [systemic threats] could come from in the short-term" (September 2004); with the global financial system "improved;" "strong and resilient" (various years); and "not bad" (April 2006).

The overall tone of the *GFSR* became more cautious thereafter, but this was not reflected in the IMF's other public messages. The April 2007 *GFSR* struck a more somber note of warning that "underlying financial risks have shifted" and that the "collective build-up of investment positions in certain markets could result in a disorderly correction when conditions change." Even this cautious note, however, was accompanied by an assessment that the foundations for global financial stability were "strong."

all institutions to start believing in a 'new paradigm'," warned one IMF department (Fall 2005). Several Board members were also not persuaded; as one Executive Director noted, "… the favorable assessment provided by staff merely describes the calm before the storm and urgent action is needed to avert a crash" (Spring 2005). A majority of staff reviewers, Management, and many Board members were not convinced by the 2006 *GFSR's* conclusions that financial innovation was making banks and the overall financial system "more resilient." Similarly, the *WEO* was criticized by the Board for being too optimistic, and several reviewers questioned its take on policies to mitigate property bubbles, especially monetary policy.

20. The IMF, and in particular the *GFSR,* did not highlight emerging vulnerabilities in large financial institutions until Spring 2008, when the crisis had already erupted. The *WEO* worried repeatedly about advanced countries' "richly valued" property markets increasingly unjustified by fundamentals but it focused almost exclusively on the potential impact of a correction on the real economy. As late as April 2006, shortly before U.S. housing prices peaked, the *WEO* and the *GFSR* explained away the rising share of nontraditional mortgages in the United States (Figure 2) thus: "Default rates on residential mortgage loans have been low historically. Together with securitization of the mortgage market, this suggests that the impact of a slowing housing market on the financial sector is likely to be limited."

Figure 2. U.S. Mortgage Loans



Source: IMF, *World Economic Outlook*, April 2006, p.18.

21. The IMF Economic Counsellor had warned about growing financial sector risks at a conference organized by the Federal Reserve at Jackson Hole in August 2005. In contrast to prevailing wisdom, Rajan (2005a) noted that under certain conditions, financial innovation could leave countries more exposed to financial-sector-induced turmoil than in the past, notwithstanding its potential to expand the financial sector's ability to spread risks. He warned that a loss of confidence in an environment with credit default swaps growing exponentially and with savings increasingly managed by nonbank intermediaries could freeze the interbank market and precipitate a full-blown liquidity crisis. He also explained how incentives for risk taking were rising and how this could drive asset prices away

Figure 3. Key Vulnerabilities and Concerns Highlighted in World Economic and Market Developments Sessions, 2004–08[1]

Source: IMF Board documents for the WEMD sessions.
[1]Includes risks specifically highlighted for discussion and issues flagged as cause for concern in the main text.

from fundamentals, which would be accentuated in a low interest rate environment. He, therefore, noted the need for "greater supervisory vigilance … to contain asset price bubbles," and that central banks would need "to be vigilant for any possible shortfalls in aggregate liquidity." He concluded that "we should be prepared for the low probability but highly costly downturn." Rajan's speech was posted on the IMF's external website and he went on to present these views on other occasions and publications.[13] Despite the importance of the Economic Counsellor's position, there was no follow up on Rajan's analysis and concerns—his views did not influence the IMF's work program or even the flagship documents issued after the Jackson Hole speech.[14]

22. Unsustainable global imbalances were a persistent theme, with clear warnings about a disorderly decline in the dollar, but multilateral surveillance did not generally connect this with the financial and housing market risks pointed out by the *GFSR* and the *WEO*. It did not highlight the systemic problems that were building up in large financial institutions, caused in part by strong capital inflows and low interest rates. Analysts view these factors as having helped push up asset prices, prompting a search for yield and an underestimation of risks, leading to the creation of ever-riskier assets.

23. Views expressed in confidential discussions were largely in sync with the IMF's public messages. In the run-up to the crisis, the restricted WEMD sessions at the Board largely focused on macroeconomic risks (Figure 3). As late as July 2007, staff considered that the "global expansion [would] remain strong" and revised upward the outlook for growth, while drawing attention to growing vulnerabilities in some emerging markets. The financial market turbulence in early 2007 was seen as "not warrant[ing] a fundamental reassessment of the global outlook" (March 2007)—a view that the IMF also conveyed to the G-7 and the G-20.

C. Bilateral Surveillance of Systemic Financial Centers[15]

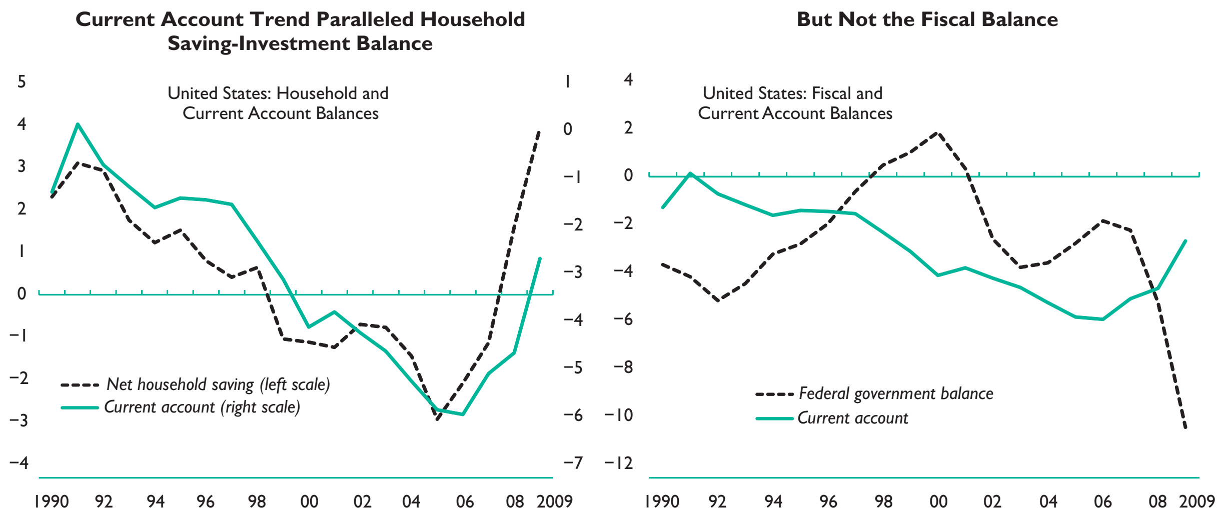
24. The IMF largely endorsed the policies and practices of the largest systemic financial centers at the epicenter of the crisis. On financial sector issues, the IMF largely relied on the assessments by the U.S., U.K., and euro area authorities, who were confident about the capacity of their respective financial sectors to absorb the shocks that could arise. The prevailing view was that their financial systems were robust and

[13] Rajan (2005b, 2005c, and 2005d).

[14] The evaluation team was given several alternative explanations for the lack of traction of Rajan's views. The most common explanation was that his concerns were considered as only having a low probability, mainly because most staff saw financial markets as inherently stable. Some thought that "turf" played an important role, that is, others in the IMF objected to Rajan taking a lead on financial sector issues. In any case, the fact that concerns repeatedly raised by the IMF Economic Counsellor failed to influence the IMF work program and the flagship documents indicated a lack of clarity on whose responsibility it was to follow up on these issues.

[15] This section is drawn from four IEO Background Papers on bilateral surveillance by Bossone (2010), Dhar (2010), Peretz (2010), and Wagner (2010).

Figure 4. Trends in U.S. Current Account, Household Saving/Investment Balance, and Fiscal Balance, 1990–2009
(In percent of GDP)



Sources: Bas Bakker and André Meier, "Asset Price Booms, Monetary Policy, and Global Imbalances" (unpublished presentation; Washington, IMF, 2006); and U.S. Bureau of Economic Analysis.

regulatory and supervisory institutions were strong and sophisticated. Also, it was believed that the authorities' views were based on information on individual institutions that was not available to IMF staff and that, in any case, IMF staff would not have had the resources to analyze these data in depth. At the same time, many of the pertinent and more specific risks and vulnerabilities that were identified in multilateral surveillance or by independent analysts during this same period found little voice in most bilateral surveillance discussions.[16] An exception was the case of Switzerland, where IMF staff were more willing to express concerns and provide advice regarding the financial system during bilateral surveillance—something that was appreciated by the Swiss authorities.

25. Bilateral surveillance of the U.S. economy failed to warn the authorities of the pertinent 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 IMF often seemed to champion the U.S. financial sector and the authorities' policies, as its views typically paralleled those of the U.S. Federal Reserve. The chief concern was about the risks stemming from the large and growing current account deficit, and the main recommendations were for fiscal adjustment and continued financial innovation to attract capital inflows. It did not adequately probe the interplay between financial innovation, foreign capital, and the housing and securitization booms. Nor did it promote the use of prudential regulatory measures as an appropriate response to households' over-borrowing.

26. The U.S. Article IV discussions repeatedly stressed the need for fiscal consolidation to reduce the current account deficit. Meanwhile, analysis by the PDR Department in 2006 showed that the U.S. current account balance closely tracked the saving-investment balance of households, while the fiscal balance showed little correlation (Figure 4). Despite this finding, policies to address the household saving-investment imbalance received little attention, as did the question of what role monetary policy might have played in the credit and housing prices booms.

27. The IMF heralded the benefits of securitization for its (assumed) risk-diversifying properties and downplayed the likelihood of a major housing-price decline. Even after house prices began to drop, staff believed that the repercussions for financial institutions would not be serious. The liquidity risks and opportunities for regulatory arbitrage from the shadow banking system went unnoticed, and the first analysis of the subprime issue only appeared in the July 2007 staff report, more than six months after problems in this sector had already surfaced. The 2007 staff report discussed several risks from financial innovation and the regulatory challenges they posed—as problems in housing and financial markets were becoming evident—but it remained sanguine about the soundness and resiliency of major financial institutions based on their profitability and capital adequacy.

[16] Annex 4 presents a sample of citations from analysts, both inside and outside the IMF, who warned about risks and vulnerabilities in the financial sector ahead of the crisis.

Box 2. Bilateral Surveillance of the United States: Sanguine on Financial Innovation and Behind the Curve on Risks

Housing finance. "Exotic mortgages have only begun to spread as better data and more refined financial tools have become available to lenders, including complex behavioral models and sophisticated financial innovations that allow the tailoring of attendant risks to dedicated investor classes" (2006).

Subprime securitization. "Rising sub-prime delinquencies led to a jump in spreads on higher-risk mortgage-backed securities, but there has yet been little contagion outside of the near prime ('Alt-A') segment of the mortgage market, reflecting the wide dispersion of risk and concentration of difficulties in specialist sub-prime originators, many of which have failed" (2007).

Financial soundness. "Core commercial and investment banks are in a sound financial position, and systemic risks appear low. Profitability and capital adequacy of the banking system are high by international standards … despite a recent uptick following sub-prime difficulties, market measures of default risk have remained benign" (2007).

Innovation and risk. "[The credit rating agents were] uniquely positioned to assess a wide range of structured transactions" (2006).

"Although complacency would be misplaced, it would appear that innovation has supported financial system soundness. New risk transfer markets have facilitated the dispersion of credit risk from a core where moral hazard is concentrated to a periphery where market discipline is the chief restraint on risk-taking. The conduit mechanism, in turn, has facilitated broader credit extension—with the important qualitative nuance that much of the recent credit growth has reflected lending to new, previously excluded borrowers, as opposed to 'more money thrown at the same people.' Although cycles of excess and panic have not disappeared—the subprime boom-bust being but the latest example—markets have shown that they can and do self-correct" (2007).

Regulation. "The U.S. financial sector remains resilient and well regulated" (2005).

"The key to innovation has been that market forces have been allowed to operate. The regulatory philosophy … has emphasized selectivity in the application of safety-and-soundness oversight … with the Fed serving a singular role as guardian against more dirigiste temptations. A growing array of financial institutions has been made to function without the props and constraints of prudential norms and the counsel and intrusion of examiners, and many have become laboratories of innovation" (2007).

Financial innovation and capital flows. "… while deep, liquid, and innovative U.S. fixed income markets should continue to attract foreign capital, they will have to carry on innovating more rapidly than other financial centers to retain a relative advantage" (2007).

Thus, the banner message was that "[t]he most likely scenario is a soft landing of the U.S. economy." Box 2 provides some other key quotations, organized by theme, from U.S. Article IV consultations.

28. The IMF did not conduct an FSAP for the United States because the U.S. authorities did not agree, despite repeated requests during 2004–07. This omission is regrettable because an FSAP could have helped the authorities and more experienced financial experts look into financial sector issues in a comprehensive way. An FSAP might have followed up on the risks highlighted in the *GFSR* and possibly detected some of the evolving vulnerabilities.[17]

29. Surveillance of the United Kingdom presented a similarly overly optimistic picture, even though an FSAP follow-up was undertaken in February 2006. The FSAP follow-up 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. But the bottom line was that financial innovation and regulation were praised, the banking sector was regarded as robust, and the overall message was reassuring. The FSAP follow-up noted: "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." Staff did raise concerns about the risk of a fall in U.K. property prices, but focused on the potential impact such a fall might have on consumption, and not on the impact on financial institutions. Again, in line with the focus on global imbalances, the main external risks identified were those of a dis-

[17] Yet, the mixed experience with FSAPs in other advanced economies raises questions about what the results of a U.S. FSAP would have been. Annex 5 lists factors that led to overly sanguine assessments in FSAPs for several advanced economies. In this regard, IMF (2009b) diplomatically states that "it is not clear that the analytical approach typically employed in the FSAP would have identified the sub-prime problems or valuation issues and risks associated with structured credit products in the United States…."

orderly exchange rate adjustment and/or a sharp rise in interest rates.

30. Surveillance of the euro area also conveyed a positive message. For example, according to the 2007 Article IV staff report (issued in July 2007), "[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." On the financial sector, the IMF seemed to take comfort from the fact that "financial market volatility and risk premia remain historically low." It suggested, however, 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 it still believed that on the regulatory front, "the key challenge was to ensure the uniform implementation of the [EU] directives by national prudential authorities …" rather than stressing the need to address the above-mentioned risks.

31. Bilateral surveillance of Switzerland was more effective, but the IMF's main message was still relatively upbeat. Given the importance of the financial sector to Switzerland, IMF surveillance there 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. The Update focused on a number of issues highly germane to the crisis, ranging from the difficulty of pricing complex financial instruments to possible channels of systemic risk transmission. IMF staff rightly raised concerns about the high leverage and international exposure of the two largest banks—concerns that proved quite prescient. The Update also recognized the importance of spillovers from abroad, including those that could arise from a hard landing of housing markets in the United States. However, the 2007 Article IV staff report took a more upbeat tone than the Update, downplaying concerns about system-wide financial sector risks.

D. Bilateral Surveillance of Other IMF Member Countries[18]

32. The quality of bilateral surveillance varied greatly among other member countries in terms of warning about the risks that ultimately unfolded. In contrast to the upbeat messages to the largest systemic financial centers, some smaller advanced and emerging market countries with similar vulnerabilities received repeated warnings about the buildup of risks in their domestic economies. The analysis of macro-financial linkages was also typically better in emerging markets than in advanced economies,[19] yet the IMF tended to believe it did a better job in the advanced economies (Box 3).

33. A number of advanced countries—such as Iceland, Ireland, and Spain—shared many vulnerabilities, but IMF surveillance messages differed in content and forcefulness. The crisis experienced by each of these countries may have been triggered by external events, but domestic factors played a large role in its severity. These countries experienced large current account deficits, real estate booms, and rapidly rising debt levels, and faced many of the financial risks akin to those in the United States and United Kingdom (e.g., high liquidity, cross-border funding, weak risk management, and low risk premia). In Ireland, surveillance raised concerns about risks and vulnerabilities that were not discussed in the United Kingdom (even though the two countries were covered by the same unit in the European Department); for example, the IMF pointed to risks to the Irish financial system arising from exposure to an overheated property market. Still, as late as mid-2006, an FSAP Update for Ireland concluded 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. An FSAP for Spain at the same time appeared to give a boost to the integration of financial sector analysis into macroeconomic surveillance; the IMF praised Spain's dynamic loan-loss provisioning system against a background of rapid credit growth and a potential housing bubble. This provisioning approach was not suggested for either Ireland or the United Kingdom that faced similar developments. Iceland's surveillance was notable for failing to stress the dangers of an oversized banking system and focusing instead on the possibility of overheating (Box 4).

34. For some advanced countries with relatively more stringent regulation, IMF policy prescriptions seemed to champion the approaches taken by the United States or the United Kingdom. The focus of this advice was to foster innovation, which was seen as a main factor behind the soaring profitability in the United States and the United Kingdom, with little or no discussion of the risks involved. Germany and Canada were among those advanced countries for which the IMF believed "… profitability is not yet on par with international levels and innovation needs to advance further" (2006 Germany Article IV staff report) or "conservative Canadian banking strategies yield significantly lower returns on assets than in the U.S." (2007 Canada Article IV staff report). In these countries, the IMF's advice concentrated on market-oriented reforms to overcome structural "impediments," some of which helped protect them from becoming exposed to the crisis triggers.

[18] This section draws on Wagner (2010).

[19] See also Watson (2008).

Box 3. What Did the IMF Regard as Best Practice for Financial Sector Surveillance?

A task force 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 task force laid the basis for a more systematic approach to ensuring adequate coverage of financial sector issues in bilateral surveillance.[1] 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 task force 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 …."

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

35. IMF performance was better in some emerging markets that were subject to more "traditional" macroeconomic vulnerabilities. A series of crises in the 1990s and early 2000s had led the IMF to concentrate on identifying risks and vulnerabilities in these countries. In 2001 the IMF launched the Vulnerability Exercise, an interdepartmental surveillance tool aimed at identifying underlying vulnerabilities and crisis risks in emerging markets. This exercise succeeded in identifying the countries most at risk and in strengthening the surveillance messages in those countries.[20] Figure 5 shows the results of an exercise conducted using data as of September 2007 which identified all the countries that eventually requested an IMF-supported program as having medium or high vulnerability. These results helped focus interdepartmental collaboration that served to strengthen bilateral surveillance for the emerging markets.

36. The success of the Vulnerability Exercise in identifying crisis-prone countries raises the question of why this exercise, along with the IMF's work on early warning systems, focused solely on emerging markets. The IMF seemed to ignore the fact that a number of advanced economies had also suffered serious financial crises in the not-too-distant past. As early as 2003–04, some senior staff and Executive Directors had suggested that advanced countries be included in the Vulnerability Exercise. It is not entirely clear why these countries were ultimately excluded; some senior staff indicated that it would have been uncomfortable to inform the corresponding authorities that their country would be included.[21]

37. IMF surveillance in some emerging markets had elements that were better than in advanced econo-

[20] IMF (2009d).

[21] In 2009, the IMF launched the Vulnerability Exercise for Advanced Economies. At that time, staff prepared a paper that showed that using data that had been available in 2006, the new vulnerability framework would have pointed at the United States, the 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.

Box 4. Iceland: What Was the IMF Saying in 2007–08?

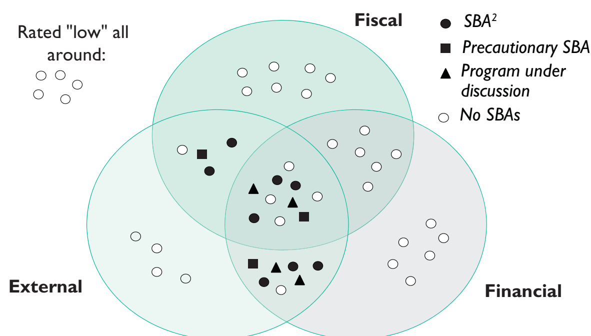
In spite of a banking sector that had grown from about 100 percent of GDP in 2003 to almost 1,000 percent of GDP, *financial sector issues were not the focal point of the 2007 Article IV discussions.* The massive size of the banking sector was noted, but this was not highlighted as a key vulnerability 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 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 by investment banks and a Board member, who at the Article IV discussion 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 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*, a few months before the eruption of the crisis, the IMF issued a Financial Sector Stability Assessment 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.

Figure 5. Vulnerability Exercise

(Sectoral vulnerabilities in emerging markets as of September 2007)[1]



Source: Reproduced from IMF (2009d).

[1]Countries within circles were identified as having "medium" or "high" vulnerabilities in the respective areas.

[2]Stand-By Arrangement.

mies, but with some important deficiencies. In these cases, the IMF gave consistent warnings on vulnerabilities related to: overheating, large current account deficits, credit booms, and unsustainable debt build-ups. While acknowledging that foreign banks brought resources and expertise, in some countries the IMF noted that over-reliance on funding from parent banks could be a risk. Still, in most countries, the overall messages were overly positive, even for some of the most crisis-prone countries. For Hungary, for example, the headline message in the 2007 Article IV staff report was "[w]ith fiscal consolidation on track for 2007 and 2008, short-term risks have receded, especially due to the favorable international financial environment." Furthermore, surveillance typically focused on domestic vulnerabilities, not those associated with spillovers or contagion, yet some of the domestic vulnerabilities played little part in the country's own variant of the crisis.

38. In some other emerging markets, the quality of surveillance was mixed. In India, for example, in 2006–07, the IMF was recommending that India continue to move forward with liberalization of financial markets and the capital account. Yet, some senior officials consider that India's success in weathering the crisis could be attributed in part to its more conservative banking sector and gradual approach to liberalizing its capital account. Other emerging markets, particularly commodity export-

ers and those in regions that had been hardest hit by past crises, had been running current account surpluses in the period before the crisis. For these countries the IMF had expected a "decoupling," and did not fully recognize the adverse impact of the crisis on them. Indeed, there was a perception among country officials that the IMF was pushing these countries to reduce the pace of accumulation of their "excessive" reserves (which ultimately helped these countries to weather the worst of the crisis). Some observers presumed that these messages reflected political pressures from advanced economy members to address the global imbalances in a manner that better suited their domestic interests.

39. In a number of cases, the 2007 Decision on Bilateral Surveillance led to a much greater emphasis on exchange rate misalignments, in a manner and to a degree that triggered tensions between the IMF and country authorities. In Latvia, for example, an otherwise good surveillance effort[22] was ultimately derailed by the new emphasis on the exchange rate level, creating a rift in communications and a weakening of traction with the country authorities just before the crisis erupted. As of December 2008, the Article IV consultations for several countries were significantly delayed, owing to "ongoing internal discussion on the implementation for the 2007 Surveillance Decision."[23] These delays occurred during the most critical period in the run-up to the crisis.

[22] Latvia's Article IV consultations sent clear messages of concern about overheating, massive imbalances, and banking system vulnerabilities. A March 2007 FSAP Update supported an already strong focus on macro-financial linkages and systemic risks in the banking sector. IMF staff were so concerned about Latvia's vulnerabilities that an interdepartmental working group was formed in early 2007 to do high-frequency monitoring of the economy and develop contingency plans. This represented a good example of interdepartmental collaboration in this period.

[23] IMF, EBD/08/114, 12/23/08.