INTERNATIONAL MONETARY FUND

Initial Lessons of the Crisis for the Global Architecture and the IMF

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KEY POINTS

The crisis has revealed important flaws in the current global architecture. This paper focuses on initial lessons and four key areas where reform is needed:

- *Surveillance of systemic risk*. Vulnerabilities can arise from a variety of sources, including unexpected events, bad policies, misaligned exchange rates, credit-fueled asset booms, external imbalances, or data deficiencies that obscure trends. To gain traction, surveillance needs to be reoriented to ensure warnings are clear, to successfully connect the dots, and to provide practical advice to policy makers.

- *International coordination of macro-prudential responses to systemic risk*. This cuts to the arrangements that govern collective policy decisions, involving forums such as the International Monetary and Financial Committee, the Financial Stability Forum, and the various "Gs" (in particular, the G7 and G20). Systemic concerns about the international economy should be reported directly to policy makers with the ability and mandate to take action.

- *Cross-border arrangements for financial regulation*. Best practices have been developed to help avoid regulatory arbitrage and assist in burden sharing across jurisdictions by international financial conglomerates, with understandings on regulation, supervision, and resolution. These ground rules need to be strengthened and made more automatic to avoid a repetition of the "go-it-alone" responses seen in this crisis.

- *Funding for liquidity support or external adjustment*. Public funds are available from the Fund and others to help countries weather short-term liquidity strains, or to smooth necessary adjustments from unsustainable external trajectories. Given the size of international transactions, these resources should be augmented, and processes for providing short-term liquidity better defined.

I. Context

1. *Coverage*. This paper provides an initial assessment of the flaws in the global architecture exposed by the crisis and potential solutions. Views on what architecture comprises can vary. Here, it is taken to encompass the official mechanisms that facilitate global financial stability and the smooth flow of goods, services, and capital across countries. While many bodies contribute to this process, the Fund—by design—serves as something of a fulcrum. The discussion provides an overview of key facets of the architecture, and explores first steps to make the system in general and the Fund in particular more effective.

2. *Focus*. There were four key areas where the existing architecture failed to respond adequately as growing vulnerabilities eventually produced a crisis:

- *Surveillance of global economic developments and policies* did not give sufficiently pointed warnings about the risks building up in the international financial system.
- *Coordination of macroeconomic policies across governments* did not produce the international leadership needed for a concerted response to the global risks identified.
- *Regulation and supervision of internationally active financial institutions* did not provide a sufficiently robust framework to allow problems to be resolved smoothly.
- *Arrangements for international public liquidity and loans to support adjustment* did not fill gaps adequately as the crisis spread, reflecting shortcomings in design and size.

II. Surveillance

3. *Context*. International surveillance aims to identify domestic and, in particular, cross-border vulnerabilities that could spark systemic disruptions. Surveillance over the global economy and countries' policies is primarily the mandate of the Fund. Many other institutions have similar functions—the Bank for International Settlements (BIS), the Organization for Economic Cooperation and Development, the World Bank—but from a more specialized perspective. The Fund's role rests on its universal membership, mandatory bilateral Article IV consultations, and lead role in crisis lending. After the Asia crisis, a greater focus was placed on financial analysis, with the Fund and World Bank creating the Financial Sector Assessment Program (FSAP) to examine macro-financial linkages, and the newly minted Financial Stability Forum (FSF) promoting information exchange and cooperation in financial supervision and surveillance across the major financial centers. None of these arrangements provided sufficiently robust warnings in the run up to the crisis.

4. *Problem*. Warnings provided by official bodies before the crisis were generally too scattered and unspecific to attract domestic—let alone collective—policy reaction. To be sure, there was some prescient bell-ringing about the build up of risks in the US banking model and housing market. However, official warnings both within and outside the Fund were insufficiently specific, detailed, or dire to gain traction with policy makers (Boxes 1–2).

Box 1. Quality of IMF Warnings in the Lead Up to the Crisis[1]

The Fund's multilateral surveillance publications—the World Economic Outlook (WEO) and the Global Financial Stability Report (GFSR)—and bilateral surveillance reports (Article IVs, FSAPs) identified many key developments and vulnerabilities. But they failed to deliver effective, actionable messages.

Many issues were identified, often repeatedly, but their combined impact was underestimated, and interconnections missed. A selective summary of themes includes:

- *WEO*: (i) global imbalances (since Spring 2002); (ii) low global interest rates/high risk taking (Spring 2005); (iii) elevated global house prices (continuous, notable early warnings in Spring 2003 and Spring 2004) with emphasis on global synchronization/risks (Fall 2004) and a US-specific warning (e.g., Fall 2005); (iv) excessive reliance on external funding by EU accession countries (from Spring 2004); (v) impact of globalization on inflation (Spring 2006); (vi) financial system feedback to economic cycles (Fall 2006); and (vii) European housing market valuations (Fall 2007).
- *GFSR*: (i) market complacency/"search for yield" (e.g., Fall 2003); (ii) lack of information on holders of risk (e.g., Spring 2004); (iii) increasing leverage and complexity of credit products (Spring 2005); (iv) dependence on continuous liquidity (Spring 2006); and (iv) subprime lending and housing markets (Fall 2005, also Spring 2007).
- *Bilateral surveillance*: (i) institutional weaknesses (especially through FSAPs); (ii) low interest rates; (iii) wholesale funding risk; (iv) expansion of credit risk transfer products; (v) risk of house price corrections; (vi) mounting international exposures, in particular through interbank markets; and (vii) lack of information on ultimate holders of risk.

However, in all cases the surveillance missed or underestimated the: (i) risk of a house price collapse; (ii) danger from dispersed/unseen risk; (iii) housing-financial feedbacks; (iv) spillover from subprime mortgages to finance more broadly and on to the real economy; (v) limits of inflation targeting; and (vi) risk of systemic failure.

Overall, key weaknesses were:

- *Failure to uncover aggregate implications of individual risks*—macro-financial issues were often viewed in isolation, and spillovers and feedbacks inadequately explored.
- *Lack of follow-through*—when risks previously flagged (e.g., in 2002–03) failed to materialize, concerns were not voiced more loudly, but rather downplayed. Also, exploration of "tail risks," consideration of "what if" questions, and emphasis on "known unknowns" were all inadequate, with scant reappraisal of sanguine baselines or formulation of specific remedial advice.
- *Optimistic bottom-line assessments and hedged messages encouraged complacency*—analysis was too often inclined to believe "this time is different."

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[1] This Box draws on and updates findings of the Fund's 2008 Triennial Surveillance Review, which focused on bilateral surveillance of Germany, Switzerland, the United States, and the United Kingdom, supplemented by an internal informal review of multilateral surveillance messages.

Box 2. Warnings by Others in the Lead Up to the Crisis

Warnings in the run up to the crisis were provided by a few commentators and some organizations, with differing degrees of clarity and concern, but in some cases striking prescience. These messages, too, failed to achieve traction with policy makers. Some examples:

The BIS. Its Annual Reports outlined clear, growing risks from 2004. A selective chronological summary would note emphasis on: (i) global imbalances; (ii) liberalized financial systems prone to instability; (iii) low interest rates distorting behavior; (iv) the danger of either "overt inflation ... [or] implications of growing debt levels"; (v) the need for domestic and international macro-financial stabilization frameworks, notably "macro-financial stability issues could fall between the cracks;" and, later, (vi) the danger of a rapid turn in the credit cycle; (vii) the vulnerability of untested structured products; (vi) credit ratings not capturing the full distribution, potentially leading debt holders to underestimate loss exposures; (viii) mortgage-backed security investors exposed to unexpected losses; and, further, (ix) medium-term risks increasing; (x) problems with household balance sheets and US mortgage markets; (xi) spillover effects to credit default swap and other derivative markets (before July 2007); (xii) "market risk and leverage"; (xiii) problems with the "originate to distribute" model; and (xiv) banks "intentionally or inadvertently, retain[ing] significant credit risk on their books."

The US Office for the Comptroller of the Currency. Its Annual Credit Underwriting Surveys from 2004 through 2007 provided early warnings, chronologically, that: (i) ambitious growth goals foster imprudent credit decisions; (ii) enhanced credit risk management practices were needed; (iii) relationship managers needed to be held accountable for both the quality and the quantity of their deals; (iv) "the worst of loans are made in the best of times"; (v) everyone needed to keep pace with new products, changing risk selection practices and underwriting standards, and emerging concentrations; (vi) rapid appreciation of housing values was raising concerns about price volatility and overvalued markets; such that by 2006 (vii) credit risk was increasing with continued weakening of underwriting standards.

The Bank of England. Its Financial Stability Reports from 2005 flagged many of the issues raised by the *GFSR*, noting that while the short-run outlook remained good, "search for yield" and mounting vulnerabilities on borrowers' and financial institutions' balance sheets gave cause for concern—but later challenged the *GFSR*'s April 2008 loss estimates as too high.

The FSF. In several reports over 2003-06, the FSF highlighted the need for improvements in risk management practices, disclosures, investor due diligence, supervisory approaches, and in credit rating agency management of conflicts of interest. In September 2006, it highlighted risks associated with household indebtedness, inflated housing prices, rapid growth in leveraged buyouts and debt-financed acquisitions, the growing complexity of financial instruments, and global imbalances. It urged financial market participants to take account of the full implications of a possible reversal of benign conditions, including less liquid markets.

Independent commentators. Several warned of key downside risks: (i) in mid-2005 both Paul Krugman and Robert Shiller noted in op-eds the potential for a drop in US house prices; (ii) in early 2006 Kenneth Rogoff outlined risks to the global economy, including a danger of house price collapse and weakness in the global financial system "impossible to calibrate until the system is stress-tested"—but speculated a dollar collapse would provide such a test; and, finally, (iv) Nouriel Roubini came closest to seeing the form the crisis would take, warning in early 2006 that the global and US house price bubble would collapse and global growth slow—and became louder from October 2006, warning that the US economy would suffer a hard landing and the rest of the world would not decouple.

- *Lack of specificity in warnings*. As the securitization model led risk to be sliced, diced, and sold to third parties, the general view was that this reduced financial vulnerabilities, including those arising from large net capital inflows. Over time, some observers—including the Fund, BIS, FSF, and Bank of England—became concerned that risk might not be as dispersed as was being assumed. This led to warnings about the potential for unexpected financial links, as problems in institutions that bought many instruments could send shockwaves through seemingly unconnected markets. All too often, however, the text was coded and embedded in lengthy discussions or lists of concerns. Even more importantly, while analysis caught that risks might be concentrated, it missed that they remained with the core banking system—in part reflecting insufficient data. Securitized instruments had generally not been sold to outsiders but rather to affiliated entities (the so-called special investment vehicles) whose structure allowed lower capital support for the underlying loans, creating higher leverage and systemic risk. The failure to diagnose the risk to the core system also led to a failure to propose a concrete policy solution—the need to raise capital charges on off-balance sheet exposures and nonbanks.

- *Missed interlinkages*. The connection between macroeconomic risks and developments in domestic and international financial markets was underestimated. Although the Fund was hardly alone in this, its surveillance significantly underrated the combined risk coming from growing financial complexity and rising leverage. In particular, despite the earlier failure of Long Term Capital Management, there was limited focus on the vulnerabilities to a loss of the market liquidity that was sustaining an increasingly complex web of financial relationships. The result was an under-appreciation of systemic risks coming from links between financial markets, of spillovers across countries, and of the strength of the resulting financial sector feedbacks onto the real economy. This partly reflected a "silo" culture of specialized surveillance, characterized by limited engagement across institutions with different skills sets and perspectives—evidenced also by the incomplete integration of macroeconomic and financial analysis at the Fund.

- *Rosy bottom line*. The result was a generally optimistic view on advanced countries and financial innovation. This was especially noticeable at their intersection, the seemingly successful US and UK economies at the center of the global financial system. Fund surveillance echoed the conventional view that advanced countries with relatively low and stable inflation together with highly profitable and well capitalized banking sectors could withstand the unwinding of any froth in housing and capital markets. While this is understandable, more time should have been spent on "tail risks" from these domestic vulnerabilities. To be fair, the Fund did repeatedly warn about the risks from external sources through global imbalances even if, as imbalances continued to rise with little apparent instability, the message tended to become more muted rather than louder. However, this analysis missed the key connection to the looming dangers in the shadow banking system. By the time in early 2008 that the Fund defied conventional wisdom by offering a prescient warning on bank losses—and a correspondingly pessimistic outlook supported by macro-financial analysis—it was too late.

5. *Solutions*. A less fragmented and more pointed surveillance system will allow warnings to gain more traction with policy makers. The new system should bring together the expertise and perspectives of a diverse range of players and institutions, have a process to drill down on poorly understood issues to improve the risk assessment and related policy advice, and should encompass a wide range of systemic risks. Components include:

- *A joint Fund–FSF early warning system*. The proposed early warning exercise can help integrate surveillance by combining the Fund's macro financial expertise with the FSF's regulatory perspective to produce a more holistic view of evolving global concerns. To further widen the perspective, a range of outside opinions should be canvassed at the start of the process—including macro-financial analysts, policy makers, market players, and academics. The exercise itself should then focus on organizing the common themes coming from this process into a limited number of key underlying vulnerabilities, risks, and evolving trends. The final presentation to policy makers should focus on policy advice to mitigate risks or, where the issue remains only partially understood, on the need for further analysis (and, where needed, better data) so more concrete discussion and policy options can be provided in a later presentation.

- *Emphasizing systemic risks from all quarters*. A tacit presumption of much analysis in the run-up to the crisis was that tail risks lay mainly in less mature economies. Tellingly, although significant resources were spent on forecasts and risks around the baseline for advanced countries and on multilateral issues, the Fund's formal vulnerability exercise involved only emerging markets. A clear lesson from the crisis is that tail risks can come from a wider range of sources, and global surveillance will have to adapt accordingly. In the case of the Fund, the vulnerability exercise is being expanded to advanced economies and integrated with the early warning exercise. The renewed emphasis on advanced country risks also implies new perspectives on existing concerns, such as those coming from large current account deficits and corresponding capital inflows. This underscores the need for a resolution of the vulnerabilities coming from continuing imbalances, currency misalignments, and capital flows between the Fund's largest members.

- *Better integrating Fund financial analysis with its macroeconomic work*. Greater emphasis on integrating the Fund's financial sector work into the WEO and Article IVs is needed. A range of efforts are underway to this end. New analytic tools can enhance the current limited understanding of macro-financial links, including through the work of the new macro-financial unit in the Research department. FSAPs should also be sharpened. The current approach involving comprehensive assessments of domestic issues and formalized assessments of standards should be transformed to more risk-based and thematic assessments, with greater emphasis on external links and spillovers (including, possibly, through regional reports where appropriate). FSAP participation should also be made mandatory for all systemically important countries.

III. POLICY COORDINATION AND FUND GOVERNANCE

6. *Context*. For surveillance and crisis resolution to be effective, policy responses have to be discussed by those with the authority and legitimacy to respond. While the Fund's broad membership provides legitimacy, the mandate was given to the Board while the ministers and governors with the power to act are on the purely advisory International Monetary and Financial Committee (IMFC). With mandate and power separated, and compounded by rigid structures, policy coordination gradually drifted to smaller, nimbler, and more uniform groups, most notably the G7. However, the G7's authority extends over an increasingly limited share of the world economy, constraining its ability to initiate policy actions and resolve underlying global tensions. In short, nobody is clearly in charge.

7. *Problems*. A lack of global policy coordination stoked the crisis, reflecting in part the limitations of available structures. While the fragmentation of surveillance resulted in a failure to communicate some risks clearly to policy makers, collective action proved elusive even when serious concerns were raised, most notably about a disorderly unwinding of global imbalances. After the onset of the crisis, the lack of mechanisms to coordinate initial policy responses made problems worse. Both weaknesses partly reflected the absence of an effective forum where relevant policy makers could actively engage.

- *For example, the IMF and others warned repeatedly over 2002–06 that global imbalances posed serious risk to global stability*. Such warnings were taken seriously by policy makers, and echoed in communiqués from the IMFC and the G7, an awareness that eventually led the IMFC in 2006 to endorse a broad strategy for dealing with global imbalances—comprising fiscal consolidation in the US, structural reforms in Europe and Japan, measures to boost domestic demand and currency flexibility in emerging Asia, and increased spending by oil producers. However, the Fund's efforts under its new Multilateral Consultation to obtain more specific policy commitments and prod action from the main countries concerned met only limited success. G7 communiqués at times contained somewhat more direct exhortations—primarily toward nonmembers. However, these declarations also yielded little concrete action.

- *After the crisis intensified in 2008, the initial policy response was far from collaborative, let alone coordinated.* This helped problems propagate across the global financial system. As countries rushed to protect their banks' assets and liabilities with government guarantees, they put pressure on less protected systems in neighboring countries, exposing them to risks of deposit runs unless they too adopted guarantees. The resulting network of government support in advanced countries also put pressure on emerging market banks. Liquidity support provides another example of a lack of coordination. Actions in the US initially focused on providing domestic support, even though market prices suggested significant dollar funding pressures for European banks and emerging markets. Finally, countries were quick to ring-fence assets in their jurisdictions when cross-border entities showed signs of failing, reflecting the absence of clear burden sharing mechanisms for banks with international operations.

- *When the need for cooperation was finally recognized, an improvised locus of debate emerged.* Rather than relying on existing mechanisms—the Fund, the institution mandated to coordinate efforts to preserve global financial stability, or more flexible groups like the FSF—policy makers saw a need for a new forum which combined appropriate representation of the key global players with a small enough grouping to be effective. They convened the first ever G20 Leaders meeting, followed up by an apparatus of thematic working groups whose membership extends beyond the G20. This choice is symptomatic of the perceived flaws of the alternatives: for the IMF, formalistic ways that discourage engagement by senior policy makers; for the FSF and the G7, insufficient legitimacy to discuss issues affecting a much broader range of countries than their own membership, and lack of dedicated capacity for analysis and follow up.

8. *Solutions*. Stronger global policy coordination is both needed and possible. The current crisis offers an opportunity to strengthen multilateral collaboration significantly. The Fund could credibly claim this role, if it addresses its deficits in ownership and effectiveness.

- *The scale of this crisis should help overcome barriers to coordination*. The shortcomings mentioned above are not the only reasons why the Fund and other forums did not prove very effective in spurring global coordinated action. Coordination inherently constrains the freedom of action of governments; thus it is understandable that they only engage in it sparingly, as a matter of necessity. But crises are opportunities to overcome this resistance and progress to building more coordination into the international architecture. The emerging market crises of the late 1990s gave rise to the FSF and the Standards and Codes initiative. This crisis—whose scale is much broader—should lead to similarly ambitious changes, including securing engagement by top policy-makers. An efficient and representative body of top policy makers is needed for effective collaboration on policies to address systemic risks.

- *Unlike alternative groupings, the Fund has the mandate, analytical wherewithal and institutional capacity to play this role, but reforms are clearly needed.* The Fund has a near universal membership, the mandate to promote global financial stability, and a strong independent staff. In recent years, however, it has faced disaffection from a growing part of its membership, eroding both its credibility and its relevance. Action is needed on several fronts to reverse this trend.

  - *Rebalancing quota shares*—which determine a member's voting power in the Fund and cap the amount of financing it can receive in normal circumstances—sooner than envisaged at the last quota review, so that they reflect better the evolving world economy. This will give emerging and developing countries a greater sense of ownership of the Fund and will alleviate their doubts about its ability to serve their interests.

  - *Moving to a more representative Board and IMFC*, less tilted toward advanced countries to the detriment of emerging and developing countries. Improving the voice and representation of the latter will complement the impact of the quota reform.

- *Giving IMFC ministers and governors a high profile forum* for focused interactive deliberations and policy follow-up. This would enhance policy engagement and political legitimacy on key issues such as early warnings and response.
- *Other governance reforms*, such as advancing accountability and the effectiveness of decision making and creating a truly open, transparent and merit-based system for selecting Fund management. This would further contribute to making the Fund a trusted actor at the center of the system, thereby enhancing its ability to play a coordinating role.

IV. Cross-Border Financial Regulation

9. *Context*. As the size and number of internationally active banks rose, regulation and supervision increasing required cross-border cooperation. Such cooperation is complicated by legislation embodying different underlying rules and philosophies as well as a tendency to put the interests of home depositors and governments first. In response, colleges of supervisors were set up to provide lines of communication and information sharing between the various groups tasked with ensuring the safety and soundness of banks operating in many jurisdictions. But these arrangements proved fragile in the face of financial turmoil.

10. *Problems*. The crisis has underscored the inefficiency of fragmented arrangements for the oversight and resolution of internationally active financial institutions. In normal times, existing mechanisms for information sharing on such institutions (and associated joint risk assessments) work well enough across national regulators without formal arrangements. The crisis has demonstrated, however, that jurisdictional conflicts can come swiftly to the fore, with cross-border problems arising from national differences in at least three spheres.

- *Thresholds for intervention*. Despite concerted (and to a large extent successful) international efforts to harmonize bank prudential requirements and, albeit to a lesser degree, supervisory practices across countries, the manner in which regulatory capital and other metrics are used to trigger corrective action by regulators and supervisors varies widely across jurisdictions. At one end, US-style prompt corrective action frameworks transparently prescribe specific and increasingly severe actions as a bank passes down through successive prudential triggers. At the other end, the (admittedly diverse) European-style systems generally place greater emphasis on supervisory discretion, with remedial action presumed but not defined. As a consequence, subsidiaries (or branches) of internationally active banking groups will generally be subject to different intensity of oversight. The determination of appropriate action to be taken in times of stress is potentially a source of ambiguity between home and host supervisors. Moreover, the resulting opportunities for regulatory arbitrage act to the detriment of the group as a whole, and hence of the international financial system.

- *Materiality of risks*. While group-wide reputational and operational concerns imply that risks to the constituents of large internationally active banking groups are strongly linked, the costs of such failure vary decidedly across stakeholders. While in normal times franchise considerations may create incentives for holding companies to support foreign subsidiaries in difficulty, in times of crisis—i.e., when the parent itself is under duress—liquidity and capital may be called in from abroad with little regard for any deleterious impact on the foreign

operations. Yet foreign operations that may be peripheral to the parent bank may be critical to the host financial system (e.g., Italian-owned banks comprise one-fifth of the Polish market but their assets account for only 4 percent of Italian banking assets). This provides an incentive for host regulators to defensively trap liquidity through prudential measures (e.g., liquid asset requirements or limits on lending to parents) and to ring-fence assets in times of stress. This further complicates business decisions already muddied by uncertainties about whether competitors will provide support or cut and run.

Resolution tools and safety nets. The most serious issue is that there are no harmonized ex-ante rules governing cross-border bank resolution or burden sharing. Without such rules, supervisors' obligations to their own taxpayers lead them to minimize liabilities to nonresidents and maximize control of assets—this may even be tabulated in law, as with US "domestic depositor preference" and its "single-entity approach" to resolution under which the Federal Deposit Insurance Corporation as receiver is required to seek control over all foreign assets of a failed US bank. In this crisis, examples of such defensive moves include the decision by UK supervisors, in the face of an imminent collapse of Icelandic bank branches under the authority of Icelandic supervisors, and in the absence of assurances that UK bank liabilities would be fulfilled, to ring-fence Icelandic bank assets, and the German initiative to freeze Lehman's assets to assure the availability of cash to satisfy depositors before they could be attached to the parent under US bankruptcy proceedings.

11. *Solutions*. While a harmonized bank resolution regime may prove ambitious, progress is clearly needed on improving prior agreements on coordination. Ongoing efforts at coordination through international colleges of supervisors and codes of conduct (in which the Fund can play a role) will certainly help, even if more fundamental improvements in the institutional and legal setting—culminating in a binding code of conduct across nations—would largely be a political task beyond the capacities of regulators and supervisors.

- *Coordinated risk monitoring and intervention*. Although the purist may point to a harmonized resolution framework as a precondition for coordinated remedial action arrangements—and with the crisis having exposed weaknesses in both the mandatory US approach and its more discretionary European counterpart—barriers to greater supervisory coordination are not insurmountable. Even in the absence of more fundamental agreement on the principles of cross-border wind-up, concrete steps to codify closer home-host collaboration and, most importantly, explicit agreement on thresholds and associated actions to address vulnerabilities early is a matter of urgency, even if initially applied only to major internationally active banking groups. This is a matter of mutual benefit and should be a key issue on the supervisory college agenda. Colleges also should be made more inclusive to further help avoid protectionism.

- *A harmonized resolution framework*. This is exceedingly complicated, not least because even within national boundaries there remains the potential for jurisdictional conflict between competing laws—the US system, for instance, has separate federal statutes for banks and broker-dealers, state-level laws for insurers, and leaves holding companies and other intermediaries under the corporate bankruptcy code. In the cross-border context, the division of fiscal costs in wind-up becomes a key issue—all the more so because, as noted above, the

materiality of risk viewed from different perspectives defies simple rules. Ways forward could include an international banking charter spelling out the procedures for joint risk assessment, remedial action, and burden sharing across jurisdictions or, short of a charter, agreement on these issues among home and host supervisors, with the supervisory colleges as an arbiter.

V. Financing: Facilities and Resources

12. *Context*. Appropriate lending facilities and resources help ensure that countries have rapid access to adequate funds in response to international strains. However, resources available to the public sector in general and the Fund in particular have failed to keep up with the growth of international flows of trade and (more strikingly) financial assets. In addition, Fund facilities have continued to focus on supporting adjustment through loans rigidly tied to conditionality, even though increasingly open capital markets and the changing nature of shocks have also created demand for contingent credit instruments and liquidity lines. Many countries responded by trying to self-insure by building up international reserves.

13. *Problems*. The crisis has exposed gaps in current arrangements to meet the financing and insurance needs of countries. In particular, recent financial turmoil has underscored the need for a fresh look at the Fund's lending toolkit that was put in place several decades ago.

- *The absence of standing dollar liquidity facilities*. This was keenly felt in interbank markets around the world. For mature markets, it took several weeks to act on stresses. And, even after ad-hoc bilateral swap lines between central banks were set up and their scope gradually increased, market prices continue to suggest that problems remain. The response was even slower, and the amounts provided more limited, in the case of emerging markets. With the temporary central bank swap lines provided only to a handful of countries, and the criterion for admission opaque, it would be desirable to find a broader-reaching and lasting liquidity insurance mechanism.

- *Absence of large insurance mechanism for emerging market countries*. Although many emerging market countries have drawn on Fund resources recently, access to adequate liquidity and financing in hard times remains an issue, as does the absence of an insurance facility adequate in size and flexible in repayment terms. Without such insurance, emerging market countries will continue to try to self-insure through excessive reserve buildup, likely distorting the global pattern of current account balances.

- *Stigma of Fund lending*. It is no secret that members resist approaching the Fund for financing due to the political stigma of such borrowing, and in the process may allow their problems to fester. Additional evidence of such stigma is provided by the existence of a clear demand for "Fund-type" financial support by other international financial institutions and central banks. Recent examples include the World Bank providing balance of payments assistance via development policy loans to several East European members, and the establishment of the Fed swap lines for some emerging markets.

14. *Solutions.* In addition to supporting improved private sector instruments for insurance, the Fund's financing toolkit clearly needs to be reformed to include an effective crisis prevention instrument and alleviate the stigma of approaching the Fund. This points to the need to tailor the Fund's lending from general resources to the varying strength of members' policies and fundamentals by reforming conditionality and to allow flexibility on access levels and repayment terms in lending instruments that are designed to meet any type of external problem. Consideration should be given to establishing an effective crisis prevention instrument catering to high-performing members. For other members, the scope for access to high-access precautionary arrangements should be clarified.

- *Liquidity for strong performers*. The main objective of a new crisis prevention instrument should be to provide assurances to members with a strong policy track record and sound fundamentals of rapid, large and upfront access to Fund resources with no ex post conditionality. It would be available to address all types of balance of payment problems. Key design issues would include the length of the arrangement and whether to cap access in the absence of an actual external need. Under the most flexible design, the framework would not rule out lending against an actual (rather than contingent) need, and, thus, could help high performing members deal with the ongoing global deleveraging.

- *Adequate precautionary borrowing*. Formalization and clarification of criteria for high access precautionary arrangements could help ensure that all members, particularly those that do not qualify for the new instrument, also have access to an effective crisis prevention window. This would require establishing unambiguous modalities for frontloading access and for customizing program design based on the member's policy track record and the required policy adjustment. A key design issue concerns whether to establish a ceiling on access to avoid undue tying up of Fund resources.

- *Improving conditionality*. Tailoring Fund conditionality to the varying strength of members' policies and fundamentals would help alleviate the political stigma associated Fund-supported programs. This could be achieved, for example, by relying more on ex-ante than ex-post conditionality, where justified by the member's fundamentals.

15. *Problems*. The IMF's lending capacity must catch up with potential needs. The jump in IMF lending this early in the crisis has raised questions about the adequacy of the Fund's lending capacity, particularly given global deleveraging and sharply reduced capital flows to emerging markets. These questions will need to be quickly addressed if IMF-supported programs are to remain a credible stabilizing factor across the system.

- *Financing needs in a crisis*. The Fund's available resources (some $200 billion prior to the crisis) appeared high in periods of calm, but now look increasingly constrained as the situation has turned. While the Fund can draw on up to $50 billion more through standing borrowing arrangements with members, there are serious questions as to whether the cumulative pool of resources will be sufficient.

- *Need to maintain a cushion*. The Fund has a unique mandate to provide confidence to members by making its resources temporarily available. While other sources of balance of payments support can and are playing a vital role in addressing the crisis, the Fund's global membership, as well as its capacity to catalyze broader sources of financing, further reinforces the importance of it maintaining a central role in the provision of balance of payments support. To play this role credibly, however, the Fund must have resources commensurate to the magnitude of the problems at issue. New commitments totaling $48 billion has been provided since end-September 2008, with substantial additional assistance in the pipeline. Stress in other emerging markets, particularly in Eastern Europe, and the unprecedented complexity, breadth and scale of this crisis, suggest significant further potential demand.

16. *Solution*. Prompt temporary action is needed given the circumstances, although a more permanent increase in available resources should be considered. While there are a range of options for increasing resources, borrowing under bilateral loan agreements—as recently done with Japan for $100 billion—is the most effective near-term option, although other variants (such as placing paper with central banks) could also be explored. Expansion or enlargement of existing multilateral borrowing arrangements—the General/New Arrangements to Borrow—may be considered by participants as a longer-term solution. A general quota increase—based on an updated quota formula—would permanently increase the Fund's own resources. More innovative options—such as an SDR allocation, together with some post-allocation mechanisms to temporarily transfer liquidity to members with the greatest need—could also provide additional reserves to meet growing liquidity needs.

VI. CONCLUSIONS

17. *Bottom line*. The crisis has revealed flaws in key dimensions of the current global architecture, but also provides a unique opportunity to fix them. On the flaws, surveillance needs to be reoriented to ensure warnings are clear, successfully connect the dots, and provide practical advice to policy makers. An effective forum for policy makers with the ability and mandate to take leadership in responding to systemic concerns about the international economy is key. Ground rules for cross-border finance need to be strengthened. And, given the growing size of international transactions, resources available for liquidity support and easing external adjustment should be augmented and processes for using them better defined so they are more readily available when needed. These are all ambitious undertakings. But the damage wrought by the crisis provides an opportunity to make progress on seemingly intractable issues. The moment should not be missed.