AVERTING THE NEXT FINANCIAL CRISIS

Improving International Monetary Fund Surveillance

Erin Waldron
John Kenneth Galbraith Fellow

AMERICANS FOR DEMOCRATIC ACTION EDUCATION FUND
1625 K Street, NW, Suite 210
Washington, DC 20006
Phone (202) 785-5980, Fax (202) 785-5969
www.adaction.org, adaction@ix.netcom.com

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Executive Summary

This paper assesses the shortcomings of the International Monetary Fund's surveillance procedures, as witnessed in the 1994-95 Mexican financial crisis, the 1997-98 Asian financial crisis, and the current crises in Russia and Brazil.

The forward-looking framework expounded in this treatise links a qualitative evaluation of system-wide vulnerability (covering macro, sectoral, institutional, and systemic liquidity issues) with a quantitative assessment of the financial condition of noteworthy financial institutions. Based on vulnerability criteria and judgmental stress tests, indicators of soundness (measuring risk exposure, solvency, liquidity, profitability, and supervisory assessment) can be developed and used in the Fund's Article IV consultations to more meticulously assess the status of member nations' economies. This holistic methodology can then be used as an early warning/crisis-avoidance system to identify potential systemic problems and problem institutions requiring immediate attention. Furthermore, it can also be used to pinpoint needed reforms in the legal, regulatory and institutional infrastructure that can lessen the likelihood of a future crisis.

This paper suggests a program whereby members work together with IMF and World Bank officials to craft an enhanced indicator system of surveillance that meets their individual needs. Standard setting bodies would also have a larger role to play in this system, working directly with country officials to help target specific goals for members in adopting international standards and best practices.

The proposed program was designed with the world's people in mind. The goal is to prevent devastating bouts of poverty brought on by preventable financial crises.

I. Introduction

A. Historical Context for Modern Day Institutions

In 1944, when the International Monetary Fund (IMF) and the World Bank (IBRD) were first conceived as organizations for international finance and development, the current system of market capitalism, if it was imagined at all, was a mere seed of an idea. The founders at the Bretton Woods Conference were determined to erect broad multilateral institutions capable of providing both stability to international relations and a check on the rise of economic nationalism, which was thought to have contributed significantly to the outbreak of World War II. There had been no permanent cooperative organizations to oversee the international economic system prior to Bretton Woods. While the IMF and the World Bank were erected to satisfy the immediate needs of the reconstruction of post-war Europe, the founders also evinced a desire for a system of trade and financial transactions to span the globe, enhancing the lives of peoples everywhere. Out of this once obscure vision, globalization has emerged and prospered.

In the past decade, globalization, meaning the rise of market capitalism around the world, has irrefutably contributed to America's unprecedented economic boom. It has created millions of jobs from Asia to South America and an explosion of affordable goods and services for Western consumers. Globalization has brought technology such as phone services and computers to developing nations and a transfer of nearly $2 trillion from rich countries to poor ones through direct investments, equity and commercial loans. The upsurge of information seeping into previously sheltered nations has revolutionized these societies, allowing them to overthrow dictators and reach unprecedented levels of independence. Some scholars, reeling from the veritable explosion of multinational corporations (MNC's) and transnational nongovernmental bodies, have suggested that this movement is threatening the very conception and power of the nation state. It is widely accepted now, however, that MNC's and even connections forged via the Internet are poised to narrow the commercial and cultural gaps separating the rich nations from the poor in the decade to come. The world community has marveled at the achievements of the globalization effort and the speed at which international relations on various fronts have emerged and changed.

But as many could not have predicted the successes of international trade and finance, the size and scope of the troubles it would cause were equally difficult to anticipate. It is within the realm of the struggles faced by nations in development, perhaps more than their successes, that the roles of the IMF and the World Bank have become known to the world. The IMF was originally designed to support global trade and economic growth by helping maintain stability in the international financial system. It was created to finance short-term balance of payments deficits during the Bretton Woods era of gold/dollar fixed exchange rates (1944-1971). In the current world, however, where flexible exchange rates dominate in the industrial economies, it has focused on developing countries wherever larger financial crises have erupted. The World Bank was initially charged with managing long-term development projects. Over time, the distinction between the two organizations has become increasingly blurred; the World Bank has come to require such things as exchange rate adjustments to facilitate monetary stabilization as part of its loan conditions, while the IMF now demands such policy changes as trade liberalization in order to stimulate long-term development. "Economist" magazine has written that the two institutions operate "virtually interchangeably," and that "the IMF has taken on the unaccustomed role of development lender, while the Bank has moved to meet the Fund from the other direction…making stipulations not just about the particular projects it finances but about the fiscal and monetary policies, trade policy, and exchange-rate policy."[1]

B. A Time of Change for the IMF

The blurred lines of distinction in terms of roles and agendas between the IMF and World Bank are products of the evolution of the global marketplace and its resulting crises; it is the first in a series of problems that these organizations will need to evaluate and adjust. This proposal will provide viable suggestions for realigning the institutions and reapportioning the roles of each to meet the demands of today's international financial system, or as those familiar with the lexicon of global finance would say, its "architecture."

The new financial architecture was conceived as finance ministers and scholars throughout the world have grappled with the lessons from the crises in Mexico in 1994-95, Asia in 1997-98, Russia in 98 and Brazil in 1998-99. While each of these episodes was characterized by domestic failings that made countries vulnerable to crisis, the experiences more importantly accentuate the need for improved management of global/financial risks at the systems level.

The IMF has continually been identified as the central player in the debate that has materialized regarding the roles which the international financial institutions (IFI's)

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[1] "Economist," (1991b, 19)

should assume in reducing instability in an increasingly liberalized and, at times, volatile international financial system. The IMF is the ideal centerpiece for reform because of its distinct responsibilities for surveillance of the international financial system. In addition to facilitating balanced growth of international trade, promoting orderly exchange rates and a sound multilateral system of payments and providing liquidity to members with balance of payments problems, the IMF also serves as a forum for consultation and collaboration on international monetary problems. The Fund conducts surveillance and provides technical assistance through the Article IV Consultations: annual meetings with leaders of member nations to review their policies affecting overall economic performance. Given the Fund's vital responsibilities for providing liquidity and regulatory-type oversight, it is apparent the reform of the IMF is inseparable from reform of the international financial architecture.

In addition, the surveillance responsibilities of the IMF allow the organization proximity to member nations, regardless of their size and stature, that is unrivaled by the other international financial institutions. This propinquity, as well as the regularity of the consultations, is crucial to the effort for enhanced financial crisis prevention. The IMF carries out its surveillance responsibilities through annual bilateral meetings and through multilateral discussions held in the context of the Executive Board's twice-yearly World Economic Outlook reviews and annual *International Capital Markets* reports. Traditionally, the main concentration of IMF surveillance has been to encourage countries to correct macroeconomic imbalances, reduce inflation, and undertake key trade, exchange, and other market reforms. However, as a rejoinder to the financial crises of the 1990's, a much broader array of structural and institutional reforms is now seen as necessary for countries to establish and maintain private sector confidence and lay the groundwork for sustained growth. These evolving areas of concern include strengthening the efficiency of the financial sector, improving data collection and disclosure, making government budgets more transparent, and promoting legal reforms and good governance.

The motivation for the expansion of surveillance activity is first and foremost the fundamental shifts that have taken place in the global economy in recent years: the rapid growth of capital markets, increased regional and monetary integration, and the implementation of current account convertibility and market-oriented reform in many countries. These transformations alone have mirrored increased responsibilities for the IMF. Its membership is now nearly universal, and its policy advice, financing, and technical assistance and training extend to a record number of member countries.

C. Enhanced Surveillance

The epic changes brought on by globalization are reason enough to launch a campaign for enhanced international financial surveillance; the national economies that comprise the larger global economy are themselves becoming more intricate and thus demand more attention. But while these adjustments coincide with the intuitive expectations of economists and scholars, it is the events that were not anticipated that provide the strongest catalysts for change. The financial crises of the past few years have exposed weaknesses in the international financial system as it exists today, many of which relate to the increasing size and importance of large cross-border capital flows. The management sectors of the member countries are not without blame in the breakdowns of the various economies, which will be explored later in this document. Their mistakes will be exposed and accounted for meticulously. However, the heart of reform must begin with their representative body in this global effort to bring market capitalism to previously untouched societies, and to deepen and strengthen the markets that already exist. This treatise concurs with previous evaluations done by scholars that have fixed the IMF at the center of the reforms to strengthen the international financial architecture. The Fund, along with global capitalism itself, has survived its infancy intact. In the past 57 years it has seen its membership increase dramatically until today's figure of 182 member countries. These have all willingly joined because they see the advantage of consulting with one another to maintain a secure system of buying and selling their currencies so that payments in foreign money can take place between them easily and without delay.

"Members of the IMF believe that keeping other countries informed of their intentions regarding policies that influence payments by the government and residents of one country to those of another, rather than making a secret of such policies is to everyone's advantage."[2] It is time to take advantage of this global commitment to cooperation and openness and set a framework for coordination on surveillance issues that is evenhanded and effective for nations of all sizes. Contrary to widespread perception, the IMF has no effective authority over the domestic economic policies of its members. The IMF urges its members to make the best use of scarce resources. In many cases, the Fund can only use rational arguments to persuade members of the domestic and international benefits of adopting policies favored by the membership as a whole. A member is never forced to adopt any policy. What authority the IMF does possess is confined to requiring the member to disclose information on its monetary and fiscal

[2] David D. Driscoll. "What is the International Monetary Fund? External Relations Department, Publication Services, Washington, D.C., Revised September 1998. Available from the IMF web site.

policies and to avoid, as far as possible, putting restrictions on exchanging domestic for foreign currency, and on making payments to other members. Its members have given the IMF this authority over their payments policies because these policies are of paramount importance to the flow of money between the nations. Furthermore, experience has confirmed that without a global monitoring agency the modern system of payments in foreign currency simply does not work.

The IMF can use its existing influence and role as it makes renovations to meet the agenda of the rapidly evolving global financial system. The more cooperation that is allowed between country authorities and Fund officials, combined with effective strategies for carrying out the activities of enhanced financial surveillance, the greater chance for success. As markets continue to globalize and become increasingly interdependent, while the influence of multinational corporations and other international nongovernmental organizations is felt, the IMF will be relied on more heavily to foster coordination between nations. The IMF's main responsibility was, in the past, to coordinate exchange rates between nations with fixed currencies. Fortunately, widespread convertibility now permits easy exchange between most of the world's major currencies. This convertibility has allowed virtually unrestricted travel, trade and investment during the past quarter of a century and has resulted largely from the cooperation of member nations with the IMF in eliminating restrictions on buying and selling national currencies.

D. Crises Indicating Need for Change

It is clear that the IMF is facing a time of transition: its old responsibilities are fading, and new ones are emerging into view. In mid-decade, a financial crisis erupted in Mexico that showed the vulnerability of members to sudden shifts in market sentiment that lead to large and unpredictable capital outflows. Mexico moved quickly to enact a strong program of policy adjustments and the IMF swiftly approved, on February 1, 1995, a record financing package for a member country of $17.8 billion. This exceptional assistance was designed to give confidence to the international financial community and to stop contagion spreading from Mexico to other members. More recently, the outbreak of the Asian financial crisis resulted in a record loan of $20.9 billion to Korea in December 1997, as part of a major international financial support package. Very large loans were also extended to Indonesia ($11.2 billion in November 1997) and Thailand ($4.0 billion in August 1997). In July 1998, serious economic problems in Russia led to an $11.2 billion IMF loan to Russia to augment a previous $9.2 billion loan extended in March 1996. [3]

In the wake of the Mexican and Asian financial crises, the IMF has been focusing on preventing such crises, and many scholars suggest that its new responsibilities should be to strengthen surveillance of members' exchange rate policies and financial markets. The Fund needs to be more candid in its assessments of potential risks attached to members' policies. It should seek more timely and accurate data from members in accordance with agreed upon international standards, and concentrate more heavily on the micro-details of its members' economies, including prudential regulation. Finally, it should combine micro and macro prudential scrutiny of members' economies with balanced, regional discussion and analysis, especially where economic disturbances are likely to spill over to the international community. The Asian financial crisis has underscored the critical importance of members' publication of timely and accurate data: surveillance must extend beyond the usual short-term macroeconomic issues, notably to cover financial sector policies. Also, the IMF must pay more attention to the interdependence of countries' policies and the risks of contagion: furthermore, transparency (or openness) of a country's policies is crucial to regaining the confidence of markets. The most essential point, however, is that effective IMF surveillance ultimately depends on members' willingness to take its advice.

The agenda for the IMF's future is indeed clearer to most scholars than the means for implementation. This treatise aims to incorporate the most innovative work done in the field to date, in order to accomplish the set agenda for enhanced surveillance and also a viable framework for carrying out the aforementioned goals. This appraisal will include a proper assessment of the roles the IFI's should assume in the new financial architecture, the best course for enhanced surveillance and calculation of financial risk, and, most importantly, a means for coordinating between the members and the staff of the Fund to ensure consensus on the future of crisis prevention. The sequencing of these objectives is indeed a more intricate and involved process than anything else, but suggestions will be included for arranging these reforms.

It is a tenuous time for global finance at this juncture in world history. Scholars are perplexed to note the rapid shift in public sentiment towards globalization in the past few years. While market capitalism and globalization had been lauded for years previous, there is widespread rage among groups worldwide that is being vented against

[3] Dick Nanto, "Global Financial Turmoil, the IMF and the New Financial Architecture," CRS Report for Congress, Updated April 14, 2000.

international institutions like the IMF and World Bank. It would be a grave mistake to dismiss the uproar witnessed in the past few years in Seattle, Washington D.C., and Prague. Many of the radicals leading the protests may be on the political fringe, but they have helped launch a profound rethinking about globalization among governments, mainstream economists, and corporations that, until recently, was carried on mostly in obscure think tanks.

This reassessment is desperately overdue. In the late 20th century, global capitalism was pushed by leaps in technology, the failure of socialism, and East Asia's seemingly miraculous success. Now it is time to be realistic. The facts demonstrate that market liberalization alone does not lift all countries. And, in some cases, it has caused severe and costly damage. There is no denying that MNC's have contributed to labor, environmental and human-rights abuses. In order for global capitalism to move into the next stage, a more sophisticated approach to markets and, more specifically, market management is required.

It is the opinion of this author that crisis prevention should be the main goal of policy initiatives throughout this coming decade. To remain effective, IMF surveillance has to adapt continuously to new global realities including those presented by the rapid evolution and growing integration of financial markets. In light of the Asian crisis in particular, the IMF should recognize that the focus of surveillance must extend further and more deeply beyond short-term macroeconomic issues. This will entail a closer and more detailed examination of the functioning of the financial sector, capital account issues, and external vulnerability, including explicit attention to policy interdependence and the risks of contagion.

Further, the adoption of internationally recognized standards, or codes of good practices, can help improve economic policymaking and strengthen the international financial system. Monitoring countries' observance of international standards would help increase incentives to adopt and improve adherence to such standards. This treatise will describe the experimental efforts in this dimension that the IMF has embarked on, and will offer suggestions for improving on these pilot programs and making them a fixed part of a permanent agenda within the Fund. It is possible to improve systemic management of the international financial system only if the problems of the past are thoroughly investigated and understood, and if our aspirations as a global financial community are precise and attainable. This investigation describes what is necessary and possible for the world to achieve on these fronts.

II. Problems Revealed

Scholars have amassed overwhelming evidence to demonstrate that the international financial system is evolving, and that the changes indicate a need for a shift in the IMF's core mission. According to an article by Michael Bordo, published by the Cato Institute, a study of global economic history for the past two centuries suggests that financial salvages before this decade were rather different from the latest series of bailouts. "Prior to the 1990's, rescue loans were made in an attempt to prevent a devaluation or abandonment of a pegged exchange rate." [4] These loans were provisional and often quite modest, offered on commercial lines on a reciprocal basis, and accompanied by a package of remedial policies.

The international rescues of the 1990's marked a watershed in the purpose, amount and duration of the funds provided to countries having difficulties. In the pre-1990's era, the purpose of international loans was to help monetary authorities preserve a pegged exchange rate. Loans extended in the 1990's were made subsequent to the peg collapse, in order to bail out investors and lenders who would otherwise have undergone a grave devaluation. These recently enlarged bailouts have been rationalized on the grounds that they will thwart contagion—meaning that they will stop the financial crisis from extending to other countries. With respect to size, the substantial bailouts of the 1990's reflect the expansion of international capital flows from banks and non-bank financial institutions of the industrialized world to the countries involved. The severity of the financial suffering endured by these countries was unparalleled in IMF history.

The acute impact of these crises is embedded in actual accounts depicting the hardships of the people who have endured the economic collapse. The Asian financial crisis alone pushed a third of the world economy into recession. Those who have borne the brunt are the working people, the poor and particularly women and children. The crisis has had a devastating effect on the basic needs of millions of urban and rural poor in Asia; the social costs of the crisis are likely to last until 2005. Although initially its social impact was felt in East Asian economies only, by the end of 1998 it became clear that its effect on social conditions stretched beyond this region. Countries of the far East and Southeast Asia experienced the terrifying bouts of poverty most deeply, however, Southeast Asia escaped the worst consequences. Feedback and field observations done by scholars investigating the social ramifications of the economic distress suggest that the general condition of the poor deteriorated. Rising prices have made it a struggle for the

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[4] Michael Bordo. "International Rescues Versus Bailouts: A Historical Perspective." Cato Journal, Vo. 18, No. 3 (Winter 1999).

rural poor to obtain food, including for small children in South Asia. The crisis has had an indirect effect on many regions with the underprivileged continuing to suffer up to this day.[5]

Many economists note the striking similarities between the Mexican crisis in 1994-95-- which Michael Camdessus, the previous Managing Director of the IMF, has called "the first financial crisis of the twenty-first century"-- and the aforementioned Asian financial crisis. The outstanding points of convergence are the problems of economic policy management faced by these developing countries in a world of highly mobile capital. Also, the pre-crisis Mexican economy was like that of the Asians in that both were considered models of fundamentally sound economic systems for emerging nations to imitate. The huge fiscal deficits or high inflation seen in other countries that have experienced financial crisis were not apparent in these nations. In fact, both the Mexican and Asian crises were preceded by very buoyant financial markets for their exports and, therefore, by major inflows of capital. In both cases, investors abruptly shifted their attitudes, leading to bouts of panic and considerable outflows of capital. Similarly, the rapid interruption of capital flows created an emergency situation in domestic financial systems, threatening the stability of the productive sectors.

But while there are, indeed, remarkable similarities between the two major bouts of financial disruption, they also differ in several respects. First, the devaluation of the Thai baht in July 1997 continued to affect world markets for several years after, and appears to be the first genuinely global financial crisis. It has had a measurable effect on Asia, Russia, South Africa, and Latin America. Second, the Asian crisis had a significantly greater impact on commodity prices, financial markets, and economic activity throughout the world-- including industrialized countries-- than was true of the financial tribulations that characterized the 1980's debt crisis and the Mexican 1994-95 crisis. Finally, the current crisis, particularly as it has taken hold in Asia, seems to be more profoundly rooted in financial inequities in the private sector rather than the public sector troubles of the preceding two emerging market crises.[6]

A. The Mexican Crisis 1994/95

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[5] Joseph Gathia. "The Asian Economic Crisis: Revisiting Child Labour From a Human Rights Perspective: Social Policy Implications for South Asia." 1998 Available at http://www.cwa.tnet.co.th/booklet/joseph.htm

[6] Steven B. Kamin. "The Current International Financial Crisis: How Much Is New?" Journal of International Money and Finance 18 (1999) 501-514. Federal Reserve Board, Washington, D.C.

When scholars examine the Mexican crisis and what went awry in the 1990's, a paradox seems to emerge: the problems can be understood only in the context of the country's economic progress of the past decade. It seemed to investors worldwide and IMF staff that Mexico was strengthening its process of macroeconomic stabilization and structural transformation between 1988-1993, after the 1982 debt crisis. Mexico made strict financial policies a priority, along with using the exchange rate as a nominal anchor and undergoing comprehensive structural reforms like privatization and trade and exchange liberalization. It was clear that this strategy was encouraging an economic resurgence in the nation that many promptly deemed a success:

> " From 1989 to 1994, Mexico's average GDP growth rate was 3.9 percent, and, in 1993, inflation fell to single-digit levels for the first time in over 20 years. These developments suggested that Mexico was poised to enjoy sustained economic growth."[7]

From the perspective of the IMF and investors worldwide, Mexico was rapidly gaining strength and earning a place at the table of the new global economy. Its NAFTA membership and open commitment to trade and exchange of information between nations made Mexico's economy a premier target for international investment.

The Mexican crisis of 1994-95 was essentially a bombshell for the IMF and most of the world's financial experts. There is no record of any IMF alert or early warning to Mexico in its staff appraisals prior to the crash. In 1994, however, there is extensive coverage of the financial crisis as it was unfolding, with three plausible reasons for the crisis given and analyzed. The assessments indicate wide ranging causes that the IMF deemed "extremely difficult" for anyone to have pre-determined. It is, indeed, disconcerting to read these intricate explanations in the appraisals for 1994, and then to find no sign of warning whatsoever for these troubles in the appraisals for 1993.

In a series of explanations for the financial turbulence of 1994, the IMF asserts that the proximate causes for the crises were a combination of external economic and domestic political shocks. On the external front, the strong growth momentum in the United States and the general pickup in other industrial countries increased the demand for investment funds worldwide. At the same time, financial conditions began to tighten in those industrial countries that were the most advanced in the expansion, especially the United States. Both of these factors prompted international investors to reassess the share of their portfolios invested in the emerging markets, including Mexico. On the domestic front, myriad disturbances, including the uprising in Chiapas in January, the

[7] Guillermo Ortiz Martinez. "What Lessons Does the Mexican Crisis Hold for Recovery in Asia?" Finance&Development, Volume 35, Number 2. June 1998 (p 2).

assassinations of presidential candidate Colosio in March and of the secretary general of the ruling party in September, and a second Chiapas uprising in December helped lead to crisis.

B. IMF Surveillance Fails

The IMF goes on to present what it sees as three general explanations of the factors contributing to the crisis. Fund analysts assert that scholars assessing the situation and the report should consider the merits and drawbacks of each reason given and, rather than set one explanation against the other, it should be accepted that many if not all of the factors played a role in the crisis.

The Fund admits in its appraisal that there were certain developments in the Mexican economy that suggested at least some of the shocks were not transitory. Specifically the assertion is made that " the persistent rise in foreign interest rates would be expected to provide a higher floor for rates on both peso and dollar-indexed paper." This development, "should have raised questions about the assumed stability of the demand for domestic money and the likely continuation of the process of financial deepening and thus, led to a tightening of monetary conditions."[8] According to this logic, a once-and-for-all devaluation, accompanied by a dismantling of indexation, might have realigned the real exchange rate without complications. However, in the Fund's defense, the attempt that was made at a managed devaluation resulted in a run against short-term, dollar-denominated public debt (Tesobonos), and the real costs of the credit crunch that followed in 1995 were enormous. [9]

The other two suggestions offered for the crisis appear to be concessions that the Fund is making to potential critics of their lack of foresight in these matters. The tone of the IMF is one of compromise with would-be critics as the Fund concedes their explanations are plausible, yet makes clear that it will not fully accept them. For instance, the Fund meekly allows that it was conceivable that Mexico's external position had been unsustainable. The argument is that this is possible, given that typically an exchange rate-based stabilization under capital mobility leads to a fall in the real interest rate and an expansion in aggregate demand. This usually creates long-drawn-out current account deficits and a real exchange rate appreciation. Even though they are driven by

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[8] IMF Central Files. Classification C/Mexico/420.3 Article IV Consultations 1994/95

[9] Guillermo A. Calvo and Enrique G. Mendoza. "Mexico's Balance-of-Payments Crisis: A Chronicle of Death Foretold." International Finance Discussion Papers. Number 545, Board of Governors of the Federal Reserve System.

private sector behavior, rather than an inadequate fiscal position, the current account deficit and the real appreciation can eventually become unsustainable.

Many scholars would accept this explanation with grand enthusiasm, the caveat being that this is something the IMF should have anticipated through Article IV consultations and then given warning to Mexico. The IMF deftly avoids this critique by attacking the explanation instead. The Fund apparently feels that the large current account deficits and real exchange rate appreciation are, at least to some extent, the equilibrium response to the process of stabilization and structural reforms. This is what they had said in 1993, so it is not at all surprising that they do not wish to renege on this in 1994.

The final view suggested is termed the "policy slippages" view. This view argues that the large number of adverse shocks that hit Mexico in 1994, added to the potential vulnerability stemming from weaknesses in the external accounts, should have led to calls for a much tighter monetary policy than the one which followed, and probably also for an early widening of the intervention band, so as to reassure the markets that the authorities were fully committed to sustaining the exchange rate regime.

This suggestion mirrors the previous one in that it implicates IMF laxity or ineptitude in its evaluation of the Mexican economy and policy initiatives prior to the crisis. Once again the IMF concedes and follows with a defensive attack. The Fund presents two arguments against this view:

> "First it was very difficult to gauge the size and nature of the shocks, even as they started to emerge. Second, it is not clear at the outset what a tightened monetary policy stance would have involved in terms of output and employment losses, or whether it would have sufficed to avert the crisis." [10]

But while hindsight is always clearer than foresight, there is reason for the world to be skeptical of the IMF's appraisal of the Mexican economy before the crisis. In only one year, while the crisis continued to unfold, the IMF was able to sight at least three foreseeable causes. The previous year the IMF had noted a decline in the current account deficit of 1993 and believed that this reflected lower private investment and an increase in private saving due to the winding down of the consumption boom of the early 1990's. The only advice that was given in the appraisal was: "In order to reduce the economy's vulnerability to a sudden reversal of capital flows, it would be desirable to strengthen

[10] See IMF Central Files et al. 1994/95

domestic saving further over the medium term."[11] Mexico obviously needed more pointed and insightful analysis of their monetary positions, and they were not getting it from the IMF.

C. Fund Surveillance Falters Again

A similar scenario is revealed through investigation into the Article IV staff appraisals of the Asian economies before the financial crisis of 1997. For instance, it must be noted that the IMF did discuss with Thailand in 1995 their large current account deficit, which averaged about 5 percent of GDP over the decade prior to the evaluation. Fund staff reiterated to Thailand that this kind of deficit is not easily sustained over the medium term and that possible problems could spark a sudden change in international sentiment.

However, after a review of the current account deficit in 1995, the staff team also agreed with the authorities in Thailand that the external position was fundamentally sound. In particular, it was determined that foreign saving was being used to finance investment, not consumption, as was the case in countries that have tended to experience difficulty: "Indeed, in Thailand, the level of the imbalance reflects a remarkable investment performance that was overwhelmed by a substantial rise in the rate of national saving."[12] For example, from 1985 to 1994, gross national saving rose from 20 percent to over 34 percent of GDP, while, over the same period, gross national investment rose from 24 percent of GDP to 40 percent of GDP. In addition, Thailand's use of foreign saving had not involved a run-up in external debt; at the end of 1994, external debt amounted to 43 ½ percent of GDP. The appraisal goes on to say that the evolution of the external position was expected by staff to include the narrowing of the current account deficit over the long term. It was thought that forces would be at play, which would reduce investment to GDP and increase the national savings rate.

It is clear that the focus of the assessment was largely macroeconomic in issue content, but not at all in terms of the practices of the banking sector. IMF staff was concerned in 1995 about the strains and imbalances in the expansion of manufacturing and service centers. The staff supported Thailand's decision to invest substantially in upgrading its infrastructure. They also focused on issues such as shifting production activity toward higher, value-added industries. There is no mention of the banking sector whatsoever in the staff appraisal in 1995.

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[11] IMF Central Files Classification C/Mexico/420.3 Article IV Consultations 1993

[12] IMF Central Files. Classification C/Thailand/420.3 Article IV Consultations 1995.

It was not until after the crisis of 1997 that the Fund discovered the way in which authorities in Thailand and the other Asian nations had failed to properly manage risks in the rapidly growing banking system. It was determined that the quality of loan portfolios in banks and finance companies was weak. In banks, nonperforming loans (more than 6 months overdue) were 7.2 percent of total loans at the end of 1995, and increased to 11.6 percent in May 1997. In finance companies, nonperforming loans also increased sharply over the first few months of 1997 (from 6 percent at the end of 1996 to 12 percent in May 1997). It was also determined that banks and finance companies had not put aside sufficient reserves for their rapidly deteriorating loan portfolios. There was, for example, no provisioning requirement for substandard loans: loan classification and loss provisioning was only tightened in March 1997. [13]

To reiterate, the Fund's analysis from the Article IV consultation in 1995 contains no prior warning of these banking sector problems that are now considered to be responsible for the Asian financial crisis. Once again, the IMF's coverage of financial and banking sector health was not sufficient to constitute effective crisis prevention.

The IMF staff appraisal of Indonesia in 1995 contains the exact same errors as those for Thailand. Once again the report does not belie any fear of a potential financial crisis on the horizon, rather, it is rife with praise for the budding economy:

> "Indonesia's achievements of economic adjustment and growth are impressive. They are based on a sustained commitment to maintaining macroeconomic stability- even when this has required sizable adjustment in fiscal and monetary policy and to significant progress in structural adjustment." [14]

The reason the IMF made this assessment is simply because it was correct. Indonesia had developed rapidly, in part because of a diversification of the economy away from a dependence on oil and gas to a wider export basket consisting of primary products, textiles, and light manufactures. Economic growth was supported by a stable macroeconomic environment, characterized by balanced budgets and low inflation policies geared to maintaining a stable exchange rate.

It would be inaccurate to claim that the IMF completely misjudged the Indonesian economy and allowed the crisis to take place. In fact, in 1995 the IMF did note in

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[13] Carl-Johan Lindgren; J.T. Balino; Charles Enoch; Anne-Marie Gulde; Marc Quintyn; and Leslie Teo. "Financial Sector Crisis and Restructuring Lessons from Asia." IMF Occasional Paper No. 188 January 21, 2000.

[14] IMF Central Files. Classification C/Indonesia/420.3/ Article IV Consultation 1994/95.

Indonesia's Article IV report that while the country's record of external debt servicing had been exemplary in the past, that the external debt and debt-servicing ratios remained high, and the authorities needed to persevere to reduce them: "Continued efforts are needed to improve the monitoring of private sector debt and strengthen vigilance over public and publicly related debt which falls outside normal budgetary channels."[15] It is completely accurate, however, to claim that while the IMF staff was able to warn the Asian nations of several potential macro-oriented structural problems, the IMF was not attentive to the finance and banking sector of the economy. In fact, since its inception, the IMF has never specialized in financial dynamics. After the Mexican crisis of 1995, the Fund prioritized improving its surveillance capacity, and one could make a strong argument that, in macro-terms, it was successful. Now Economists believe the Asian crisis essentially revealed the latest challenge for the IMF: to incorporate financial analysis on both the macro and micro levels in their inspections of members' economies.

D. National Authorities Assessed Partial Blame

The Fund certainly does not bear the full responsibility for the eruption of the Asian financial disaster. On a general level, each of the nations involved in the crisis were deemed guilty of sharing inaccurate financial data with the Fund, in addition to having lax accounting standards and weak monetary policies. While the Fund had remarked in an Article IV appraisal for 1995 that "Korea's economic statistics are of high quality and are reported to the Fund on a daily basis,"[16] it would be discovered later that this data was actually inexact and misrepresentative of Korea's economic position. [17] Scholars may safely assume that the IMF was praising the macro-data Korea was supplying, but the financial data was so flawed it clearly affected the Fund's macro perspective of the economy. Even though IMF staff point out that Korean officials introduced new prudential standards for banks in both 1995 and 1997, they provide several reasons why the Korean supervisory and regulatory framework diminished the effect of these improvements.

According to IMF's Occasional Paper No. 188, the Fund determined that supervision of banks was too fragmented to be effective. Commercial banks were under the direct authority of the monetary board governing the Bank of Korea and the Office of Banking Supervision. However, specialized banks and non-bank financial institutions were under the authority of the ministry of finance and the economy, although the

[15] See IMF Central Files/Indonesia et al. 1994/95.
[16] IMF Central Files. Classification C/Korea/420.3 Article IV Consultations 1994/95.
[17] See IMF Occasional Paper No. 188 et al. January 21, 2000.

ministry delegated on-site examination of some non-bank financial institutions to the Office of Banking Supervision. This obvious lack of a unified system contributed to high-risk practices. In addition, standards for loan classification, loan-loss provisioning, and rules and accounting standards for securities holdings also fell short of international best practice. The classification system for loans was based on the loan's servicing record and the availability of collateral without regard to the borrower's future capacity to repay. Mark to market accounting was not fully applied, therefore all of the banks' books were recording securities at cost. Finally, the lax limitations on risk concentration facilitated the highly leveraged corporate finance structure of Korean conglomerates. The nuances of the financial miscues in Asian nations are particular to each individual case; however, the poor quality of data and financial regulations is a problem found throughout the region.

The lessons deriving from the Mexican and Asian financial crises of the 1990's are still being assessed and compiled. There has been broad international recognition since 1998 of the need for a strengthened international monetary and financial system and for the Fund to play a key role in this strengthening process. The financial crises of the 1990's, complicated as they are, should not disqualify the Fund as the most capable monetary authority to lead the charge toward crisis prevention.

In his article in the Financial Times on the report done by the International Financial Advisory Committee (IFAC), created by Congress in 1998 to evaluate the IFIs, Martin Wolf concluded that "on most measures, the IFIs have been a staggering success." The bottom line is unambiguously positive even though the IFIAC majority report portrays a starkly negative picture that in many respects distorts reality. By contrast the report done by Council on Foreign Relations (CFR) emphasizes that "As costly as the Asian crisis has been, no doubt we would have seen even deeper recessions, more competitive devaluations, more defaults and more resort to trade restrictions if no financial support had been provided by the IMF to the crisis countries."[18] The facts demonstrate that there were miscalculations and misjudgments on the Fund's part, as well as on the side of the national authorities. What these complications should indicate to the global financial community is that the IMF needs to make adjustments in order to monitor countries more effectively. The nations themselves need to put forth more of an effort to improve the quality of their data and the analyses deriving from these

[18] Safeguarding Prosperity in a Global Financial System: The Future International Financial Architecture. Report of an Independent Task Force Sponsored by the Council on Foreign Relations. A Council on Foreign Relations-Sponsored Report published by the Institute for International Economics, Washington, September 1999.

calculations. Since IMF surveillance is the central mechanism through which the results of much of the work on fortifying the global financial architecture will come together, efforts to enhance its effectiveness have exploded and intensified since the year 2000. But while many have taken up the cause and advocated for reform of the International Financial Institutions post-crises, there is little consensus among international economists about how to accomplish the varied tasks.

III. New Goals for Crisis Prevention

A survey of the literature on enhanced surveillance that has emerged since the recent Asian, Russian and Brazilian crises provides us with the best sense for creating goals for the IFI's to meet in the new century. Scholars from governing bodies and nongovernmental organizations (NGO's) alike have taken on the monumental responsibilities of reforming the Bretton Woods Institutions and helping to shape the vision of the new international financial architecture. The body of work they have erected, most of which is relatively recent, by no means represents a consensus of thought on the best reformative approaches. However, in specific cases of reform, the sense of agreement between the principal academics in the field has lent significant credibility to proposed objectives for the future.

A. Separating and Defining Roles

One of the main targets for reform that has received a great deal of attention in recent years is the need to separate the agendas of the IMF and the World Bank and assign the sister organizations a set of complementary, yet specific responsibilities. The IMF was first established to provide short-term balance of payment financing in a fixed exchange rate regime. Over time, the Fund has evolved into an international economic development consultant, using subsidized loans to induce developing countries to adopt policies that are presumably in their best interests. This bureaucratic mission creep has been a source of international concern for some time, and has become a source of strong criticism of the organization since the recent financial crises. In addition to mission creep, scholars are concerned that the overlapping agendas of the Bank and the Fund create unnecessary inefficiencies that are essentially incompatible with the needs of today's global economy. Some, such as Bryan Johnson and Brett Schaefer of the Heritage Foundation, have reported that the IMF has overstepped its bounds, been a cause rather than a solution for financial crises, and should be denied additional funding by the U.S. Congress until it is eventually dissolved: "Congress should immediately examine the necessity and relevance of the International Monetary Fund. Should

Congress determine that the IMF is no longer relevant, it should take steps to eliminate it."[19] An even more blunt attack was launched in Forbes Magazine in April 2000: "The only cure for the IMF's ills is to pull the plug on that international bureaucracy."[20] The Fund has endured countless attacks like these from both individuals and groups who do not feel the organization is capable of generating prosperity and alleviating poverty, and who point to the recent crises as evidence of its failing nature. Rather than correct the shortcomings as they are discovered, these scholars feel that leveling the organization is the most promising solution.

However, more reasonable authorities believe that neither the IMF nor the World Bank should be abolished. The Independent Task Force Report produced by the Council of Foreign Relations (CFR) in 2000 is adamant that the IMF should hold its place as lender of last resort, and begin to focus its attention on its new role as crisis manager or convener (to facilitate orderly debt rescheduling), and as a monitor of compliance with international financial standards. CFR also believes that the World Bank would benefit from a refocusing of its mandate: "The Bank should concentrate on the longer-term structural and social aspects of economic development. It should expand its work on social safety nets."[21] This mandate that the World Bank take up the longer-term projects and leave surveillance and emergency lending to the IMF is a recurring theme in scholarly journals. The two organizations should be free to coordinate on aspects of all of these mandates, but the recommendations draw a clear separation regarding the focal points for each institution.

Another significant report that prioritizes this issue is one that was commissioned by the G-24, (Group of 24 country officials from Africa, Latin America and the Caribbean, and Asia that work to concert the position of the developing countries on monetary and development finance issues), and written by Montek Ahluwalia in 1999. It was published by the United Nations Conference on Trade and Development in a volume of its series of publications on G-24 studies. The Ahluwalis report indicates an important role for the Fund in dealing with crises, both in prevention (via surveillance) and management (via financing). The report also argues that "such financing does not have to be long-term and certainly not concessional." It also states that the "Fund should focus more sharply on sources of instability in the international financial system and on handling balance of payments problems which are either short-term or systemic in

[19] Bryan T. Johnson and Brett D. Schaefer. "Congress Should Give No More Funds to the IMF." The Heritage Foundation Backgrounder, No. 1157, February 12, 1998. p. 5.
[20] Steve H. Hanke. "Abolish the IMF." Forbes Magazine. April, 17, 2000. Available at www.forbes.com.
[21] See CFR Report et al, p 77.

nature." It goes on to argue that financing operations related to chronic balance of payments problems of low-income countries, e.g. the Enhanced Structural Adjustment Facilities (ESAF) and Heavily Indebted Poor Countries (HIPC) initiatives should be shifted to the Bank, with cooperation from the Fund available on technical matters.[22]

The Executive Summary of the International Financial Institution Advisory Commission (IFIAC) report, published by the US Congress and chaired by Allan Meltzer, declares that "the IMF should continue as crisis manager under new rules that give member countries incentives to increase the safety and soundness of their financial systems."[23] The report goes on to identify three proper roles for the IMF to play: 1) serving as quasi-lender of last resort to emerging economies; 2) collecting, publishing and disseminating data on member countries; 3) providing advice (as opposed to imposing conditionality) relating to economic policy. The report urges an end to long-term loans, and specifically calls for closing what it called the "Poverty and Growth Facility"

The level of agreement reflected in these reports is quite extraordinary. All echo a concern with mission creep and advise the Fund to concentrate on its core competence. All see the Fund as having a vital role in aiming to prevent financial crises, and in administering them when they do occur. All desire the Fund to continue to lend in crisis situations. And finally, all acquiesce in urging the IMF to maintain surveillance, and none challenge the proposition that this surveillance should focus on financial standards and vulnerability as well as traditional macroeconomic fundamentals.

CFR proposes that the World Bank should not be involved at all in crisis management, emergency lending, or macroeconomic policy advice. The staff of the Bank and the Fund, however, see these areas as potential grounds for effective coordination between the two establishments. During the hotly contested joint session of the IMF and World Bank that took place in Prague in September 2000, Managing Director Horst Kholer gave concluding remarks that emphasized increased IMF and World Bank cooperation several times. Kohler stated that the Bank and the Fund shared the same vision for the future of the global system and would be working on achieving sustained growth and poverty reduction together. He also suggested that a team approach

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[22] Montek Ahluwalia. "The IMF and the World Bank in the New Financial Architecture," in *International Monetary and Financial Issues for the 1990's,* vol. XI (New York and Geneva: United Nations)
[23] International Financial Institution Advisory Commission (2000), *Report of the International Financial Institution Advisory Commission* Chair: Allan Meltzer (Washington D.C.) p. 6.

would be taken on matters of conditionality and the HIPC Initiative. [24] Members of the IMF staff that were interviewed for this study underscored Kohler's points, saying his cooperative perspective was indeed a reflection of the new approach the IMF would be taking as the organization adapts to the needs of a new century.

The challenges of a global economy with extensive capital mobility have put an emphasis on Fund surveillance, placing it as the organization's single most important objective for the future. In order to improve surveillance and crisis prevention strategies, the Fund should make surveillance the sole long-term program under its direct command. In keeping with this goal, the IMF should transfer primary responsibility for operation of the Poverty Reduction and Growth Facility (PRGF)-- which has replaced the Enhanced Structural Adjustment Facility-- to the World Bank. The PRGF is a concessional lending facility, set up by the IMF, to assist the poorest members in their efforts to achieve rapid economic growth and sustained improvement of balance of payments. This program, and the aforementioned HIPC initiative are both long-range programs that are development oriented and should therefore fall under the World Bank's immediate authority. Re-directing authority is an important first step; however, there is also a need to develop a clear division of labor under these chains of command. In the PRGF, for example, the Bank should take the lead in providing advice on the design of growth-enhancing national poverty reduction strategies and additional socio-structural reforms. The Fund can complement these actions and contribute to the PRGF initiatives while remaining focused on promotion of sound macroeconomic policy and structural reforms in related areas, such as tax policy and fiscal management.

Also, while this treatise is not directed toward analysis of conditionality in IMF lending it may be said that, on a general level, conditionality is a necessary and proper addendum to IMF lending in situations of last resort. The new division of labor should include a streamlining of conditionality to avoid overlap and promote coherence. It is expected that both institutions will focus on a smaller number of clear performance targets that are aimed at maximum poverty impact, are set realistically, and are then more rigorously adhered to. The World Bank should coordinate with the IMF in developing the terms for structural adjustment contained in conditionality agreements; it will be the Bank's responsibility to oversee the progress made on these initiatives over time, and given its authority on long-term development projects, it is in the best position to direct members in these areas.

[24] Horst Kohler. Chairman of the Executive Board and Managing Director of the IMF. "Concluding Remarks," Prague, September 27, 2000.

The IMF will need to redirect its energies into developing a staff base with extensive financial expertise, to complement the majority of current employees who have greater proficiency with macroeconomic issues. A key lesson from the recent financial crisis is that prevention is better than cure. The IMF must pay closer attention to, and provide more candid advice about, weaknesses in financial sectors and external vulnerabilities of member countries. Liberalization of capital accounts must move in tandem with the strengthening ability of financial institutions to manage risk.

Instead of simply putting into place more IMF-supported programs after crises have erupted, it would be better to have fewer crises and programs through early detection of difficulties. A well-functioning financial system mobilizes resources and savings and ensures efficient allocation and resources. These functions help increase the productivity of the work force, which is vital for growth and poverty alleviation. However, the fundamental role of the financial system is more evident when it breaks down. Many governments weathered the 1997-98 financial crisis through efforts to redress vulnerabilities in their financial systems. Low-income households are further affected when troubled banking systems face loan losses and insolvencies, and the government response to them results in higher taxes, lower social expenditures, or inflation. It cannot be understated that while economists speak of the need to prevent crisis using the economic terminology at hand, what is really at stake is not simply a financial system, but the lives of human beings that depend on it. Perhaps not enough has been heard about the social consequences of economic decline; and not enough efforts have been given to addressing these consequences:

> "Three decades of strong growth and progress towards poverty reduction has obscured the fact that one in ten Indonesians- some 20 million people- live below the $1 a-day poverty line. Probably as many live just above it. Elsewhere in the region, the crisis will have powerful transmission effects for instance: recession in Thailand results in the repatriation of Burmese workers." [25]

In addition to the social costs that touch individual lives in tragic ways, it is costly to the governments who endure crisis in a collective sense. The countries in the 90's that accepted IMF loans sacrificed large portions of their entire nations' GDP then, and now, in order to restructure the system and oust non-performing financial institutions. The Fund has suggested that on average banking crises impose costs of 14-15% of GDP; this rises to 17-19% if they are combined with currency crises. Recovery typically takes 3-5 years. The cost of restructuring banking sectors alone was as much as 10% of GDP in Scandinavia, and more than 30% of GDP after crises in some emerging markets such as

[25] See Joseph Gathia et al. pp. 4-5.

Argentina, Chile, Uruguay and Kuwait.[26] If the IMF took measures to improve its surveillance, many of the problems, especially those that have been experienced by countries in the past, could be headed off before a full-blown collapse of the system. It is far easier and less costly to correct problems as they are emerging and on a one-by-one basis than to attempt a complete reformation of a nation's entire financial infrastructure.

To this end, the IMF must work with other agencies to develop codes and standards for financial sector soundness, transparency in macroeconomic and financial policies, provision of data, and corporate governance. The Financial Sector Assessment Program (FSAP), launched jointly by the IMF and the World Bank on a pilot basis in May of 1999, is the best example of how these institutions can, and must, work together to achieve both greater compliance with these standards and an essentially even-handed international financial system. The FSAP is aimed at assessing financial sector vulnerabilities and identifying developmental priorities, which involves an assessment of financial sector standards:

> "The joint Bank-Fund Financial Sector Assessment Program (FSAP) has proven effective for bringing the expertise of members of the standard-setting bodies into the assessment process. The FSAP is a collaborative effort involving expert support provided by a range of national and standard setting bodies including the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisions (IAIS)" [27]

While the primary focus of the FSAP exercise is to assess financial sector vulnerabilities and identify developmental priorities, one element of this work is an assessment of the observance of various financial sector standards. Assessments of standards will have to be complemented by the provision of technical assistance in some member countries. These assessments will identify where institutional change is needed and will thus provide key input to programs of technical assistance to improve observance of standards and codes. The technical assistance programs of IFI's involved in specific standards and codes can respond to basic needs in these areas, but support from other agencies will also be needed. The dissemination of information on priorities to improve standards in individual countries will contribute to the mobilization of support. The Bank and the Fund should capitalize on this experiment in collaboration and work towards an even closer partnership, in broader areas. It is important for the Bank and Fund to erect

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[26] E. Philip Davis. "Financial Data Needs for Macroprudential Surveillance- What are the Key Indicators of Risks to Domestic Financial Stability?" Handbooks in Central Banking Lecture Series No. 2 Centre for Central Banking Studies Bank of England.

[27] IMF and World Bank. "Reports on the Observance of Standards and Codes (ROSCs): An Update. Experimental Reports on Observance of Standards and Codes, March 30, 2000. p.3. Available on the IMF web site.

sustainable vehicles for sharing information, for instance, a joint website for staff members to access a wide range of financial sector resources, especially those relating to the FSAP process.

One area of traditional IMF surveillance that would benefit a great deal from a joint approach to issues is the World Economic Outlook (WEO). The WEO is an exercise in global surveillance, in which the World Economic Studies Division in the Research Department of the Fund creates projections and analyses of major macroeconomic events that can potentially affect member economies. This exercise is considered a complement to the bilateral Article IV consultations with members and contains the larger focus of world developments. The forecasts and analyses contained in the World Economic Outlook have become integral elements of the IMF's ongoing surveillance of economic development and policies in its member countries and of the global economic system. The survey of prospects and policies is the product of a comprehensive interdepartmental review of world economic developments, which draws primarily on the information IMF Staff gathers through its consultations with member countries. [28]

The WEO would benefit from World Bank input. As the Bank and the Fund continue to integrate analysis while taking a specific range of data within the division of labor, a dual perspective can begin to accompany major global projects, including those pertaining to surveillance. The WEO is a first step toward global surveillance that draws mainly from data collected during Article IV consultations. The IMF, with the help of the World Bank, should continue to develop this program and incorporate regional consultations for discussion of global issues, including ones that may spark contagion between integrated economies. The Fund would also do well to consider occasional global forums to address major fluctuations or changes in the architecture. The possibilities for enhancing global surveillance in this way will be explored in more detail later in the paper.

The final two goals for managing the new global financial architecture are methodological rather than substantive. The point has already been made that IMF surveillance did not operate well enough in the 1990's to alert Mexico or Asia to the impending, if somewhat foggy economic dangers. Furthermore, the Fund is open to criticism in that it did not suggest with urgency any advance planning or more appropriate ways to exit from the pegged exchange rate system that was adopted. One

[28] IMF. "IMF Surveillance: A Factsheet." IMF Pamphlet Series No. 46. July, 2000. p 2. Available on the IMF web site.

noteworthy evaluation of IMF surveillance is that warnings by the staff of emerging tensions are often cast in standard formulations, thus losing some of their exigency. The Fund would benefit from using more direct and pointed language in their Article IV appraisals of members' economies. Language usage is certainly a detail-oriented criticism, but it is nonetheless crucial to the quality of Fund evaluations and analytical work. The standard formulations that Fund economists are familiar with are not the best modalities for open exchange and discussion between the IMF and the country officials. In situations of potential crises, it is best to speak plainly about what is going on rather than use archaic economic phrasing that can divert the authorities' attention from the actual state of affairs.

Finally, the quantified economic program that will be put forth in this paper will require increased consultation with country officials by Fund staff and comprehensive discussion of major macroeconomic and financial objectives as well as the supporting policies. This should signal to the IMF that another goal associated with enhanced surveillance is to develop closer relationships with members to allow for more frequent and continual examinations. A possible framework would be to continue annual consultations for review and assessment of the authorities' quantified program, as well as semi-annual consultations to assess the progress in the implementation of the program and discussions of the related staff reports by the Executive Board. These semi-annual consultations, supplemented by informal discussions as well as regional discussions and occasional global forums will help to keep the surveillance process more fluid and at the forefront of countries' priorities. Additional consultations inevitably translate into an increased workload for the Fund, which is why surveillance should be the IMF's only long-term program that it directly commands. It is necessary for the Fund to maintain working relationships with members in the joint-efforts to enhance crisis prevention; it is the only way for the Fund to familiarize itself with the specificities of member nations, and to become comfortable with capital activity and other global developments. It is imperative for staff to keep current on the developments of research as well, and to be constantly implementing new techniques for evaluating country situations, and measures for averting possible crises:

> "Continued improvements need to be made to the evaluation and analytical work of the staff. As recognized on previous occasions, it is the quality of that work which to a large degree determines the contribution and influence of the fund itself in achieving its objectives for its members and the world economy." [29]

[29] IMF Central Files. Classification S/490/Surveillance over Exchange Rate Policies 1994/95.

In order to understand how IMF surveillance must adapt to remain effective as global realities evolve and world financial markets become more integrated, it is important to understand surveillance as it is today. In recent years the IMF has taken measures to strengthen the effectiveness of its surveillance. Improvements have been made in identifying incipient vulnerabilities, and in advancing the Fund's ability to persuade members to follow policies that are in their best interests and avoid disruptions in the economies of other members.

The aforementioned Article IV consultations constitute the main thrust of the surveillance process. These consultations focus on the member's exchange rate and fiscal/monetary policies, its balance of payments and external debt developments, the influence of its national policy-making on external accounts, the international and regional implications of those policies, and on the identification of potential vulnerabilities.[30] The IMF vigorously claims that it focuses on all of the countries policies that affect its overall economic performance, but as was exposed earlier in this report, the Fund has tended to limit this focus to specific macroeconomic policies.

The WEO program is also included under the entitlement of IMF surveillance. This multilateral and regional surveillance mechanism is prepared twice a year, and culminates in an annual International Capital Markets Report. The report provides an opportunity to assess the global implications of members' policies and to review key developments and prospects in the international monetary system. Regular discussions are also held with regional economic institutions, including the Economic and Monetary Union (EMU) in Europe. A lack of adequate transparency has been a factor limiting the effectiveness of regional surveillance to date. Some nations are more willing than others to share the details of their policy initiatives with the rest of the world. The developing countries especially, being most sensitive to the attitudes of world investors and creditors, have been reserved in their attempts to be monitored on a multilateral level.

B. Crafting an Early Warning System

While these existing components of IMF surveillance continue to be expanded and improved over time, a new focus has captured the attention of the world community: early detection of crisis. Article IV consultations have not been successful in exposing potential crisis conditions of members in the 90's. To remedy this situation, researchers have been taking a fresh look at the forces contributing to financial crises in an attempt to develop early warning systems to signal when trouble may be brewing in currency

[30] See IMF Surveillance Fact Sheet et al.

markets. Early warning systems are programs that contain crucial equations that serve as indicators of the general health of an economy.

The indicators are primarily quantitative data, intended to measure the vulnerability of the macro-economy and/or its financial institutions based on its risk exposure, solvency, liquidity, profitability, supervisory assessment, and other similar characteristics. The most compelling feature of early warning systems is that they can be custom-designed to meet a country's needs and capabilities. The finest systems that have been developed to date are based on a holistic methodology that not only can identify potential systemic problems and problematic institutions requiring immediate attention, but also can pinpoint needed reforms in the legal, regulatory, and institutional infrastructure that can lessen the likelihood of a future crisis.

B. Using Macroprudential Indicators

Early warning systems are essentially analytical and procedural tools needed to reinforce the IMF's ability to assess the strengths and vulnerabilities of economic systems. Of particular importance to early warning systems is the development and possible dissemination of macroprudential indicators (MPIs)-- defined broadly as indicators of the health and stability of financial systems. The early warning systems currently undergoing experimentation reflect the desire of the world's finance ministers, central bank authorities, political leaders, and IFI-employed experts to understand and describe the state of a country's economy from every possible dimension. The indicators, along with the assessments, must, in this century, move from a focus on the macro-realities of the economy to include micro-details such as the quality and health of individual banks. MPIs are of critical importance to the future of financial surveillance because they provide an important look into the inner workings of a country's economic system; this introspective approach allows analysts more detailed information to draw from in assessing potential problems.

This report will examine the ways that MPIs may be manipulated to suit a country's specific needs. It will also demonstrate how MPIs may provide a bottom-up approach to analysis, and be able to serve as aggregate indicators that indicate stability and health of the macro economy. This is because MPIs essentially comprise both aggregated microprudential indicators of the health of individual financial institutions, and macroeconomic variables associated with financial system soundness. However, "because the relevance of individual indicators may vary from country to country, MPIs cannot be used mechanically."[31] For example, whereas in one country an indicator may be constructed using a narrow monetary aggregate, in another country a broad aggregate may be more meaningful. The determination of this "usefulness" will be a matter of judgment. Even more important, all assessments must be based on a comprehensive set of indicators, taking into account the overall structure and economic situation of a country and its particular financial system. So that analysts do not become overwhelmed with the concept of MPIs and their potential use in IMF surveillance, it must be remembered that similar aggregate indices of country risk have been widespread in the private and public sectors for some time now:

> "Some bank supervisors calculate country risk weights for domestic banks to apply to their lending abroad. The banks themselves evaluate country risk as part of their credit assessment and monitoring, although they usually do not make such ratings public. The World Bank uses risk-rating models to assess its country credit risk."[32]

The IMF's research into MPIs in recent years is in-line conceptually with these varied quantified risk assessments. The difference is that the high level of international coordination on the production and dissemination of the indicators, in addition to the international standards that will necessarily precede them, especially in the initial stages, is unprecedented in IMF history.

Early warning systems and macroprudential indicators are the products of a line of thinking that implicates an array of different causes of financial crises. Each source should be monitored accordingly. There is no precise statistical measure of a crisis; however, it is conceptually useful to think of a crisis as excessive pressure in financial markets, which has been triggered by various developments in a vulnerable economy. "The most obvious sign that an economy is under pressure; that is suffering a loss of confidence, or a speculative attack that may be the first stage of a financial crisis, is a large depreciation of its exchange rate."[33] Financial market pressures may be triggered by political events, natural disasters or contagion. Each of these has traditionally been more difficult to predict than causes that are quantifiable, even in the most developed markets.

Another reason crises occur is because of a gradual deterioration of various aspects of the real economy and/or the financial sector, which makes the economy more

[31] Owen Evans; Alfredo M. Leone; Mahinder Gill; and Paul Hilbers. "Macroprudential Indicators of Financial System Soundness." IMF Occasional Paper No. 192. April 15, 2000.
[32] John Hawkins and Marc Klau. "Measuring Potential Vulnerabilities in Emerging Market Economies." Bank for International Settlements Working Papers No. 91 (Basle, Switzerland). October, 2000. p 1.
[33] See John Hawkins and Marc Klau et al. 2000. p 7.

susceptible to shocks. These aspects are usually fundamental in nature, and are perpetuated by continual financial laxity (as was seen in some of the Asian countries). A vast amount of theoretical literature has materialized in the past decade contending that the deterioration of the real economy and financial sector demonstrates an increase in vulnerability that is observable and can be monitored by a set of indices.

Experts from the IMF and external groups-- including other IFIs and standard-setting bodies such as the Bank for International Settlements (BIS)-- have contributed to the design of various models containing these indices as part of the premier edition of early warning systems. The trial exercise of constructing indices of financial market pressure, external vulnerability and banking system vulnerability has now been under way for well over a year. Econometric testing of selected indicators has been undertaken by the various financial authorities, and has in countless cases suggested that "the indicator approach used has some useful predictive power."[34] While some models are better than others, and the framework for using them needs to be adjusted, it is clear that early warning systems are both useful and possible for the financial community to achieve. The process of developing indicators using econometrics is difficult for those outside the discipline to understand. The driving force behind this development is, however, very simple: prevention of devastating financial crises.

Indicators are essentially derived through studies that examine the features of crisis-prone systems, with a view to anticipating future crisis events. More recently, the focus of many studies has centered upon indicators of financial health. Similar to other disciplines, research in the field of financial system health relies on the existence of certain trends that emerge to describe new considerations of economic phenomena. As the economy constantly expands and evolves at the domestic and international levels, different issue areas begin to take precedence in contemporary thought and carry the day in the construction of theories and models. For instance, numerous theories about the importance of financial markets and their significant prudential intermediaries have been created in the wake of the Asian crises:

> "Over the years, researchers have developed a variety of economic theories to explain soundness in financial markets. While earlier researchers relied on movements in economic fundamentals as the origin of financial distress and crisis, recent studies have highlighted the role of the information available to, and the expectations of, investors in explaining the behavior of financial markets." [35]

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[34] See John Hawkins and Marc Klau et al. 2000. p 20.
[35] See IMF Occasional Paper No. 192 et al. p 13.

Still, while fads in economic thought emerge and dissipate, there are constancies that allow for at least a semblance of a core-set of macroprudential indicators. However, as will be demonstrated in this section, a universal core-set need not exist in order to begin utilizing early warning systems. Given the nuances of the varied domestic economies that early warning systems are essentially trying to describe, one would naturally expect variance among the "core" or "focal" set of indicators selected to express these different vulnerability levels.

Studies of financial problems began to appear en masse following the Mexican crisis of 1994. Researchers have been successful at pulling together a solid amount of potential sources of financial fragility, which lend themselves to the creation of indicators. Table 1.1 illustrates some variety in the approach to these vulnerabilities, but also remarkable similarity in characteristics that are considered important to assess in making determinations of financial system health.[36] Sources of fragility explored in the studies include: a falling growth rate, deterioration in the balance of payments, high inflation, volatile exchange rates, surges in stock market activity and prices, credit booms, weakening performance of export sectors, and deterioration in the terms of trade. In addition, these studies highlight nonquantifiable indicators of financial fragility, such as deficient banking supervision, inadequate instruments of monetary control, overly generous deposit insurance, inadequacies in the operation of the legal system, overexposure in international financial markets, lack of adequate accounting standards and practices, insufficient financial disclosure, and perverse incentive structures.[37] It is clear that extensive research has successfully unearthed the important macroeconomic factors that must be evaluated in cases of economic instability.

Macro-approaches tend to emphasize the growth of monetary aggregates as a factor preceding financial instability:

> "A classic pattern is accommodation of excessive monetary growth, accompanying rising inflation, followed by a sharp and unexpected rise in official interest rates to combat such inflation, and flat or declining monetary aggregates accompanying a banking panic." [38]

The Fund's experience in analyzing scenarios like this one is crucial to creating significant indicators, and reformulating monetary policy once the analysis is complete. The IMF has tremendous expertise with macro-analysis, and is well aware of the importance of monitoring capital movements on this level. Recently the trends have been

[36] Diagram taken from IMF Occasional Paper No. 192 et al. p 15.
[37] See IMF Occasional Paper 192 et al. 2000.
[38] See E. Phillip Davis et al. May 1999. p 10.

to highlight particular patterns of loan spreads over time (with a marked deviation from long-term averages, first in excessive compression and then on the upside reflecting adverse selection and credit rationing), and the incidence of competition and herding, by financial institutions.

Macro indicators have also been introduced through attention to international elements, which include resistance to exchange rate pressure by the authorities (by intervention, or interest rate rises), the scope of foreign-currency borrowing (also relative to foreign exchange reserves), and the nature of capital inflows generally. The current preferences of the institutional investor community, and whether all are adopting similar investment strategies, may help one to predict unsustainable levels of capital inflows. It is also relevant to know how far the economy in question is vulnerable to shocks such as rising commodity prices. Theory has indeed provided a rich menu of suggested data for macroprudential indicators. It will be a matter of judgment, coupled with analysis of actual experience within countries, to determine what existing data best captures the health status of an economy in question.

On the micro-institutional level, attention is usually directed to a set of potential fragility indicators that could develop into significant liquidity and solvency problems. Examples include: foreign exchange exposure of financial institutions, trends in the aggregate ratio of non-performing loans (NPL) to total loans, aggregate risk-based capital adequacy, aggregate loan-deposit ratio, maturity and currency structure of bank assets and liabilities, and aggregate average returns of financial institutions.[39] Certainly, these are but a few of the factors found to be important in assessing prudential health at the micro level. The means of assessing the risks of bank runs may include the range of indicators of banks' conditions that micro data on balance sheets and profit and loss can provide. Meanwhile, interbank claims may give evidence on the counterparty risk arising from direct exposures. Also, the structure and similarity of banks' balance sheets may offer information as to whether contagion could operate via this route. These suggestions imply the use of micro data on the banks' balance sheets and profit and loss, and a focus on the mean and distribution of balance sheet structures in the banking sector. Detection of major individual banks that may be "outliers" is also important, although this raises the issue of identifying "core" banks by criteria such as size, payments system activity or international scope.

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[39] Patrick T. Downes; David Marston; and Inci Otker. "Mapping Financial Sector Vulnerability in a Non-Crisis Country." IMF Policy Discussion Paper, May 1999.

There may also be qualitative information about how likely it is that insolvency will become contagious. These would include the details, timeliness and frequency of disclosure to regulators or shareholders, whether the interbank market is collateralized, whether the payments system is net or gross, regulation of over-the-counter positions, and perceptions of the credibility of the central banks and regulatory authority.

The indicators seem to be products of economists' intuition; however, while this may be true, extensive research has confirmed the importance of timely and correct data on these fronts. The difficulty with early warning system production does not appear to be in finding important aspects of financial health to investigate at the general level; rather, the challenge is in tailoring indicators to specific countries and conducting analysis given equally specific country circumstances. In other words, it is not necessarily the "what" questions, or data determinations, that stump researchers in this field; it is the "how" questions, referring to implementation, that have eluded many, including the staff of the IMF.

IV. Framework for Program Implementation

Early warning systems should not be used mechanically. There will not be one set of indicators that can predict a crisis every time and/or in every country. The systems will be proficient, and can improve with time, but they will never be perfect. This is because each economy in the global system is unique, and therefore either sensitive or indifferent to diverse influences. To complicate matters further, since economies do not exist in a vacuum, they are constantly evolving, and their sensitivities are subject to change as well. Scholars may be able to identify certain trends that will typically cause stress in a market, or commonly cause financial instability, but these are inevitably theoretical tools for analyzing, not the canon law of economics.

National authorities are, in many ways, more qualified than the IMF staff to analyze the results of the early warning stress tests. The central bankers and monetary authorities in a country understand their own economy better than the IMF does, and will be able to determine if any alarms that the warning systems may signal warrant a policy maneuver. What the Fund brings to bear in this process is international expertise, and a wealth of experience in many different nations. The IMF staff may be able to point out aspects of a problem that national authorities have not considered, based upon their experience with similar problems in other nations. Given that both the national authorities and the Fund have different areas of expertise to draw from in these matters, it would be most efficient to make the analysis of the early warning information a team effort in every sense. But while it is logical to include and even promote country involvement in the end-line analysis, it is also necessary to structure the development of early warning programs as a joint endeavor.

A. First Stage of Program

The program should be instated as a part of the Article IV consultation process. It would be more efficient to include early warning agenda in the yearly visits that are already taking place, rather than attempting to place an entirely new cycle of visits for a separate program. The visits may need to be extended in the first few years of program launch, altering the existing cycle, but not drastically. The first stage of the program will be a process of **Goal Targeting** that will take place in meetings between country officials and Fund staff. During these sessions, countries, with Fund input, will select the indicators they would like to use in their custom-designed program. Given that standard indicators have been derived only in the past few years, many countries will no doubt be using the same sets. However, if a developing country does not feel that it can successfully monitor macro indicators, macroprudential indicators, and microprudential indicators all at once, it can sequence its own objectives and start by monitoring one set.

Goal Targeting will be an annual process, to ensure that countries include more indicators and progress in their usage from year to year. A permanent research and development team should be established within the Fund, with World Bank support, to continually assess causes of crisis and develop indicators on the macro/macroprudential/microprudential levels. A research and development team will be beneficial to the anticipation of problems that have not been seen in the history of financial crises. With new indicators coming out on a continual basis, each member country should be constantly reevaluating its early warning program every year, as well as looking to include new indicators in the process, and/or a more sophisticated combination of these indicators.

B. Custom-Designing Early Warning Systems

The next stage will include **Program Design**, in which countries and the IMF organize the indicators in order to do the necessary calculations. Necessary documentation will include the sample and the frequency of the data set, and the groupings may be done in sets: Macro set, macroprudential set, and microprudential set taking into account individual institutions. Patrick Downes, David Marston and Inci Otker have created an effectively designed model that is presented in an IMF discussion paper called “Mapping Financial Sector Vulnerability in a Non-Crisis Country.” Diagram 1.2 presents a hypothetical illustration of diagnosis of vulnerable financial institutions that is taken from this model.[40] This group of researchers grouped the “bottom-up” data, or the estimates from each individual bank, with the aggregate prudential data and the macro-economic data in one diagram. Depending on how large a nation’s data set will be, and how many indicators it will employ, this should be an effective alternative to grouping each set separately. However, this particular model was designed for use of twelve indicators that the team felt were key to assessing a particular nation in question during a standard field test. The field test took place in one of the Asian nations after the crises.

Splitting the data sets would allow for continual growth with this model, but individual decisions about program design models may be discussed at length within the scope of the Article IV consultation. It is important to note that this model operates using the “signals” approach, which is the one proposed by this paper. This approach involves monitoring the evolution of a number of economic variables. When one of these variables deviates from its “normal” level beyond a certain “threshold” value, this is taken as a warning signal about a possible currency crisis within a specified period of time. Countries should be involved as much as possible in determining the indicator thresholds. Standard thresholds are usually set by international standard setting bodies. For instance, the Basle committee has set the threshold for the minimum total capital requirement at 8 percent. If the capital adequacy ratio were to fall below that level, it would set off an alarm based upon internationally accepted standards. [41]

It should be implicitly understood, however, that the critical threshold levels for any indicators are ultimately judgmental. They depend in part on the risk aversion of the supervisor or policymaker undertaking the evaluation and in part on other factors, including the severity of economic conditions and risk that are characteristic of a country. In certain cases country officials may decide to make the threshold more or less stringent than the international standard would suggest, to make the results more meaningful given their particular set of circumstances. If the indicators are widespread and differentiated and the thresholds are set appropriately for the country, the results should be able to describe the status of a financial system’s health. The result, in terms of the number of “red lights” or warning signals, would provide a broad-based assessment of financial condition.

[40] See Patrick T. Downes; David Marston; and Inci Otker et al. p 19.
[41] See Patrick T. Downes; David Marston; and Inci Otker et al. p 18.

The logic behind the three-pronged program (macro/ macro/microprudential) is to source out potential problems from as many angles as possible. Currency crises may derive from problems that begin from the bottom, in specific financial institutions, from the top, through macroeconomic policies, and anywhere in between. The "bottom-up" approach that is recommended by this paper estimates the probability of insolvency developing for each individual bank, based on a balance sheet model. Systemic stability concerns arise when the probability of insolvency becomes significant for a large proportion of total banking assets or when the probability increases substantially in any period of time. This approach may logically be the final piece implemented in the program, especially by developing countries, because of the rigor involved in acquiring and processing bank-specific data. Attention to detail is essential with this approach because, while the data from the balance sheet is important in its own right, analysts must not ignore the key roles and interactions that take place between banks. The activities of the interbank market or the payment systems are critical to understanding the movements of capital at this level, and may, at times, alter the holdings data of specific prudential institutions. The level of complexity in surveying the microprudential data is such that industrial countries with more sophisticated data collection devices will most likely implement them before developing nations do. The nature of the early warning program should be flexible enough to account for discrepancies in members' programs. Over the years, if nations are aggressive in their efforts to utilize indicators and improve their existing early warning systems, the gaps between systems should dissipate.

The "aggregative approach" is the utilization of the next level of data, the macroprudential indicators. This approach estimates the probability of systemic insolvency using aggregate banking sector data, and applies tests typically used in the case of an individual bank to a synthetic aggregate bank. Grouping all of the individual bank data in this way provides the analyst information about how the banking system is operating in a collective sense. Whereas the microprudential data section highlights certain "outliers" or banks that are so inconsistent with the rest of the sector that they either drag down or improve the total average, the aggregate section presents an estimate of what the average actually is. Aggregates are conceptually helpful to use, but it is important to combine their use with the individual data. It is easier to compile aggregates than data for each individual bank; however, using only aggregates can potentially mask problems in important segments of the banking system. For instance, the data series may produce an average that essentially veils the problems of a few important banking institutions, which would keep them from being restructured.

The third method is the "macro-economic" approach. This method relies on the fact that banks are derivative institutions, in that their health reflects the health of their customers, which in turn reflects that of the economy as a whole. While banks are clearly an economy's most essential intermediaries, they are only one of several actors in the entire financial system. By including the macroeconomic data, analysts seek to establish systematic relationships between economy-wide variables and indicators of soundness. Also, where bank-specific data are available, vulnerability criteria derived from macroeconomic risk factors could be applied to individual banks to indicate their sensitivity to particular risks.

While conducting stress tests to measure the sensitivity of a bank's solvency or its capital base to various risks, it would be effective to include a wide range of possible risks as well as hypothetical scenarios regarding its exposure to things like changes in the exchange and interest rates or in stock market prices. It must be noted that decline of macroeconomic and banking sector conditions might take some time to be fully exposed in the balance sheets of the institutions. Therefore, "the stress tests to assess the current condition should be complemented with a forward-looking analysis of the outlook for the system in the light of vulnerability and risk factors."[42]

The IMF team that co-wrote "Mapping Financial Sector Vulnerability in a Non-crisis Country" produced diagram 1.3. It provides a visual representation of combining the three different data sets. The diagram neatly depicts data convergence on financial system soundness. It would be insufficient to analyze a country's data from only the top or the bottom sectors. An early warning system of any merit should incorporate each of the different possible angles. As countries become increasingly proficient at analyzing data in this manner, the intersecting points between data sets will become more obvious. It is conceptually useful to think of a national economy as a system with parts that spiral within it. The spirals include intermediaries: people, markets, banks, etc. None of these pieces alone constitutes the entire economy. At the global level, the national economy then becomes one of the spirals in the larger system. At no point does it lose its own significant pieces. Therefore, when monitoring a member's economy (part of the larger global economy) for potential sources of vulnerability, analysts must consider each piece, or spiral, involved. An analyst must never forget that each of the spirals is a living part of the entire system, and that the entirety will become another perspective for analysis.

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[42] See Patrick T. Downes; David Marston; and Inci Otker et al. p 13.

In terms of the data needed to conduct proficient analyses, countries should avoid approaching the goal targeting sessions as opportunities to simply add on more and more indicators each year. While this may inevitably be the method for countries in program-infancy, most countries should consider the quality of the set of indicators, as a working group, in addition to their quantity. The research and development team should be helpful in determining new and innovative combinations of indicators to use. It may be that a country will decide to drop certain indicators from its program and implement different ones. If virtually all of the financial and economic data were being used in macroeconomic surveillance, however, it will be a failure, because it would then be difficult to distinguish the key warning patterns. Determining data needs should be an extremely personal matter between country officials and IMF staff. The universality of the program may one day be found in the form of a core set of indicators worldwide, but is really constituted by use alone. The motivation will be to derive specific country data needs, using a combination of theory and experience: "A central issue is to assess what combinations of variables can offer consistent warning signs for potential turbulence, and its potential severity."[43] Also, data needs will have to be sufficiently qualitative and general to cater to the fact that crises in the future are likely to be different from those in the past, whether in terms of markets affected, incidence or nature of resulting contagion. Indeed, there is a clear danger of "fighting the last war" in seeking excessively precise and detailed data, rather than seeking out broad patterns in the data. Crises like the 1997 Asian collapse will not materialize in the same manner every time. It is important to understand what happened during each historical crisis to avoid a repeat situation; however, analysts should not always be anticipating problems that have already been seen.

Theory of financial instability and the experience of financial crises in the past provide sufficient material to enable meaningful use to be made of financial and macroeconomic data in macroprudential surveillance. Such data may include econometric forecasts, as well as current information. The purpose of the data is for use by Fund staff and country officials alike, to analyze it and provide grounds for vigilance on the part of central bankers and supervisors. It will also be described later in this report how select data may be of use for analysis by market participants.

This program does not intend for indicators to be absolutely precise and uniform for each country. There is the need for development of broad information pertaining to what constitutes normal conditions in an economy, as well as the patterns that have often

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[43] See E. Philip Davis et al. p 19.

preceded financial crises in the past. It is expected that each member nation will work with the IMF to establish a customized early warning system to suit their individual needs, and that it will be improved on and broadly developed over time. Country officials should be working hand in hand with research and developing teams, funded by the IMF and the World Bank, to make these program determinations. Account should be taken of individual countries' special features, such as sustainable corporate indebtedness, analysis of experience both at home and abroad, etc.

There will be inevitable shortcomings in the data available for many countries, especially in the emerging markets. Recognizing this, considerable efforts should be made to improve coverage and timeliness of data, through IMF assistance and training programs. Once it becomes natural for emerging nations to garner and use macroeconomic data with early warning systems, they should move to place particular emphasis on individual banking data. This is important because many developing countries have bank-dominated financial markets, and the performance of these prudential intermediaries can drastically affect their overall external positions. The quality of the data, on each of the three levels, is the most critical element to early warning systems. A nation can have the most sophisticated program design available, but if the data is inaccurate or not on par with international standards and best practices, crises will still go undetected. With that in mind, recommendations for improving data quality and dissemination will be investigated.

C. International Standards and Best Practices

Most observers have agreed that misguided macroeconomic policies, especially those that led to large budget deficits, inflationary monetary policies, and overvalued exchange rates stemming from failure to devalue enough to offset inflation, caused the debt crisis of the 1980's. Immediately following this crisis, fiscal and monetary policies became highly touted potential targets for reform in discussions among economists. Recent events have illustrated the potential risks to the world economy that arise from financial market problems, and the threat of chain reactions in the financial sector. This has demonstrated the paramount importance of mitigating systemic risk by better understanding and alleviating the factors that bear on it.

The development of a framework for international codes and standards is, in many respects, a new frontier for researchers of surveillance issues. This framework is intended to facilitate financial stability by setting minimum performance benchmarks in the key areas of financial regulation and supervision, data transparency, macroeconomic policy, and institutional and market infrastructure. Early warning systems, including ones supported by this treatise, rely on sets of quantitative data to describe the state of an economy and reveal any weaknesses within the system. Since each member nation is expected to use the same framework for analyzing the data, and will also most likely be using many of the same indicators, it is necessary for the data to be judged by the same standard of quality. By setting international standards and best practices for producing and disseminating data, it is assured that the data will be comparable across country lines, and therefore, meaningful at the global level.

According to the 1999 Progress Report on Developing International Standards, published by the IMF, there are many standards in existence today, yet their acceptance by member nations varies widely:

> "The IMF has been at the forefront of developing standards or good practices in those areas considered closest to its mandate and expertise: data dissemination, fiscal transparency, and, most recently, in the area of transparency of monetary and financial policies." [44]

The G10 governors created the Basle Committee of Banking Supervision as a forum for discussion on the handling of bank supervision problems, and to ensure effective supervision worldwide. The Committee also seeks to enhance standards of supervision, notably in relation to solvency, so as to help strengthen solvency as well as soundness and stability of international banking. The Basle Committee, with cooperation from the IMF and the World Bank, has produced the Core Principles for Effective Banking Supervision.

The International Association of Insurance Supervisors (IAIS) is similarly charged with developing internationally accepted principles and standards on insurance supervision and with training insurance supervisors from emerging market economies. In 1997, the IAIS issued two sets of standards: Insurance Supervisory Principles, which addresses general issues such as the roles of licensing, ownership, change in shareholders' control, prudential regulations, off-site analysis and on-site examinations, information and disclosure and supervisory powers. The other set is known as the Principles Applicable to the Supervision of International Insurers and Insurance Groups and their Cross Border Establishments, which focuses on licensing of cross-border establishments, on-site and off-site supervision of cross-border entities, and information and audit. [45]

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[44] IMF Policy Development and Review Department. "Progress Report: Developing International Standards." (Washington) 1999 p 2.

[45] See IMF Progress Report 1999. p 20.

Another standard setting body that has been successful in identifying principles for international use is the International Organization of Securities Commissions (IOSCO). The Organization is a forum for cooperation between national securities regulators. IOSCO works to establish universal principles for securities regulation. Their main achievement was a September 1998 report on Objectives and Principles of Securities Regulation, which includes a set of core principles for securities supervision. Thirty principles of securities regulation are set out based upon three objectives of securities regulation: to protect investors, to ensure that markets are fair, efficient and transparent, and to reduce systemic risk. IOSCO is also working on disclosure issues and has approved a set of international standards for non-financial statement disclosure, entitled: Disclosure Standards to Facilitate Cross-Border Offerings and Listings by Multinational Issuers.

With regard to international standards and best practices, a situation has emerged that is similar to what transpired with the development of indicators for use with early warning systems. The fact is, several groups have been cultivating these principles for years, and a vast amount of standards are ready for use. Some of these standards were created with the intent to persuade members to subscribe to them, and some were crafted in a consultative sense as guidelines that certain countries could adopt if they were deemed useful. The main problems that exist in this realm today are in achieving momentum toward universal member acceptance of international criteria, and in creating a framework for facilitating and monitoring the use of standards.

An effective way to make implementation of standards and codes part of the IMF's overall surveillance system is to fashion a framework parallel to the one for selecting indicators that was laid out in this report. Program design for standards and codes can be added as an additional section to complement the early warning system construction during the Article IV consultations. The IMF can oversee a nation's commitment to implementing international standards and codes of best practice in exactly the same manner as suggested for the indicators. The international community should expect that each nation will be implementing standards at its own pace. The developing nations will not be able to meet each of the required standards as easily and quickly as some of the more industrialized nations.

D. Designing Programs to Implement Standards

The first step for implementing standards should be a **Goal targeting** session that mirrors the targeting for indicators. In this stage, nations should work with the IMF to determine the standards they are capable of meeting in terms of program design. It is recommended that nations begin with the twelve standards that have been designated by the Financial Stability Forum (FSF) as key to the establishment of sound financial systems and deserving of priority implementation. The FSF was commissioned by the G-7 Finance Ministers and Central Bank Governors on October 30, 1988 with this mandate:

> "We agree that better processes are needed for monitoring and promoting stability in the international financial system and for the International Financial Institutions, working closely with the international supervisory and regulatory bodies, to conduct surveillance of national financial sectors and their regulatory and supervisory regimes with all relevant information accessible to them." [46]

The Forum is comprised of representatives from the ministries of finance, central banks and senior supervisory authorities of the G-7 countries. The IFI's and key international regulatory groupings also participate frequently. The U.S. Department of Treasury has offered its support for focusing on country compliance with the FSF's compendium of the twelve key standards, calling them a "valuable tool for promoting the implementation of standards."[47] Treasury staff interviewed for this treatise indicated that ensuring compliance with the FSF compendium, as well as pushing for effective monitoring by the IMF and regulatory bodies, are currently main goals for the Department.

The FSF's standards are widely accepted as representing minimum requirements for good practice, though the degree of international endorsement varies between the different ones. The IMF itself created three of the standards included in the compendium, two of which should be mandatory for all members. The first is the General Data Dissemination System (GDDS), established in 1997. The GDDS provides a framework within which countries, the Fund and other actors in the international community can organize their efforts to support improvements in statistical capacity. "The central goal of the GDDS is to support improvements over time rather than to make assessments/judgments relative to a demanding standard."[48] Membership to the GDDS should be made a requirement for all of the IMF's members. The other standard is the

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[46] Hans Tietmeyer, President of the Deutsche Bundesbank. "International Cooperation and Coordination in the Area of Financial Market Supervision and Surveillance." The Tietmeyer Report. February 11, 1999. p 1. Available at www.fsforum.org

[47] Joint Report on Progress on Strengthening the International Financial Architecture and on Implementation of the Cologne Debt Initiative as Proposed by the G7 Finance Ministers to the Economic Summit in Cologne. December 22, 1999. p 3. Available at www.ustreas.gov

[48] IMF Experimental Reports on Observance of Standards and Codes. "International Standards and Fund Surveillance- Progress and Issues. (Washington) August 16, 1999. p 13.

Special Data Dissemination Standard (SDDS) established in 1996. When the SDDS was first established, its requirements were recognized as very demanding and not necessarily applicable or relevant for the entire membership of the Fund. It is aimed at countries accessing international capital markets. The SDDS is essentially a “best practice” standard against which a country’s dissemination practices can be readily measured. It covers four sectors of the economy (real, fiscal, financial and external). It also explores the dimensions of the coverage, periodicity, and timeliness of the data; access by the public to those data; the integrity of the data; and the quality of the data. Subscription to the SDDS is voluntary at present; however, it should be mandatory for any nation qualified to subscribe to it. The existence of two parallel vehicles for work on data dissemination standards recognizes that different countries may be at different stages of development of their statistical systems and that consequently one frame of reference cannot be applied to all countries. Consideration will be given to their different circumstances; however, the IMF should set the precedent that nations should begin with the GDDS and strive to meet qualifications for the SDDS.

While subscription to these two standards should be rigid, the rest of the standards should be approached in the same manner as the indicators. It may be a logical determination that standards such as the Code of Good Practices on Transparency in Monetary and Financial Policies created by the IMF, or the Basle Core Principles for Effective Banking Supervision would be implemented before more specialized standards such as the Objectives and Principles of Securities Regulation put forth by IOSCO; however, this does not have to be a cardinal rule. In order to increase member ownership of the program, country officials should work side-by-side with the IMF to determine what an individual nation is capable of achieving in this realm. As in the case of the indicators, countries should be striving to implement more thorough sets of standards.

Monitoring the implementation of these standards should not be the sole responsibility of the Fund. While the IMF should help nations determine their individual programs for standards, Fund staff should not single-handedly monitor members’ commitment to enforcing them. The Fund should confine its assessments of the observance of standards to “core” areas --data dissemination, transparency of fiscal, monetary and financial policies, and banking supervision-- where it has the mandate and all the relevant expertise. Country practices in a given “non-core” area such as accounting, auditing, bankruptcy, corporate governance, or insurance and securities market regulation should be taken up by its respective regulatory body. Standard setting bodies or organizations with the relevant expertise must be encouraged to develop the capacity to undertake assessments of members' observance of standards developed by those bodies.

Each regulatory body that will make a country assessment of a nation's compliance with standards should work hand in hand with top national officials to do so. The merits of a two-track approach, in terms of maximizing countries' ownership of the report and ensuring its credibility, are clear. An effective means of achieving a dual-track assessment is to allow each country to submit both a detailed explanation of its practices and a document stating how it feels it measures up to international standards and codes, based upon the relevant literature and dialogue with the authorities. The regulatory body can then make its assessments based on these submissions, but should also have the authority to request any other materials or information it may need to make a proper judgment. Directors of the IMF indicated in March of 1999 that:

> "monitoring needed to go beyond the disclosure elements for the information to be most useful: an understanding of the basis or definition on which the information was compiled was needed and, where feasible, this should also be complemented by an understanding of what mechanisms are in place to ensure the quality of the information being released." [49]

The dual report should be submitted to the IMF for compilation purposes. The Fund, as the centerpiece of this surveillance effort, should organize these reports for each nation and create a final breakdown in a modular form similar to diagram 1.4, taken from an experimental report produced by the IMF entitled: "International Standards and Fund Surveillance- Progress and Issues."[50] The diagram suggests a quantitative breakdown of each standard that was assessed, whether or not the country met the necessary requirements, and which organizations were responsible for providing input into the final assessment. This visual breakdown will make it easier for the IMF to create "progress reports," which will be a crucial element of the incentive structure for the entire program, and the next topic of this report.

First though, it is important to thoroughly understand the reasons why the international community must advance to this refined level of surveillance in order to prevent crises. Adequate standards and definitions of standards in the financial sector are minute details compared to the complexities of the global system they are confined in; and yet, if these standards are inadequate, problems can multiply at an extremely rapid pace. For example, in countries where a high proportion of insolvent banks remain in operation, often owing to central bank credit, most, if not all, of these banks have an

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[49] Summing Up by Acting Chairman, *International Standards and Fund Surveillance-Further Issues*
[50] See IMF Progress and Issues et al. August 1999. p 9.

incentive not to adequately classify nonperforming loans and make loan-loss provisions as required. Of course, this assumes that the requirements are set at the appropriate level. In many cases, the requirements themselves may be inaccurate. The bulk of increases in loans typically represents concealed loan losses and capitalized or accrued (unpaid) interest. Banks in such a situation often continue to book accrued interest on nonperforming loans as income, thereby artificially inflating their profits and capital in addition to their loan portfolios. These technical losses continue to accumulate silently for extended periods of time until the underlying disequilibrium between money supply and demand becomes so severe that the net cash flow from deposits is no longer sufficient to cover interest payments and operating costs. By then, typically, the interbank market has dried up, liquidity problems accumulate, and the central bank is pressured to provide credit. If such credit slows or stops, banks may become paralyzed by illiquidity and may be unable to meet the demand for withdrawals of deposits.[51] And this is only one of several hypothetical situations that may actually develop and perpetuate balance of payments crises due to inadequate standards at the basic levels of accounting, systematizing payment systems, formulating fiscal and monetary policies, or at the supervisory level of the banks.

In addition, best practice regulations recognize that cross-border capital movements may involve specific elements of risk that can differ from those risks in purely domestic transactions and thus require additional rules and regulations to handle those risks:

> "Best practice prudential regulations generally seek to manage specific risks by limiting an institution's risk exposure to the extent of its ability to handle such risks and by enhanced monitoring through appropriate disclosure and reporting requirements, rather than by restricting capital movements." [52]

The regulations involved in this process are establishing appropriate prudential limits, in the form of certain balance sheet ratios, against excessive risk-taking while engaging in cross-border movements. Managing the risks involved in classifying loans, provisioning, capital adequacy, and disclosure and reporting requirements for banking institutions are additional regulations. Finally, one of the main points of such detailed regulation is for an institution such as the IMF to oversee members' abilities to assess and manage their own risk exposures.

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[51] Olivier Frecaut and Eric Sidgwick. IMF Paper on Policy Analysis and Assessment. "Systemic Banking Distress: The Need for an Enhanced Monetary Survey." August 1998.

[52] R. Barry Johnston and Inci Otker-Robe. IMF Policy Discussion Paper. "A Modernized Approach to Managing the Risks in Cross-Border Capital Movements." July 1999. p 7.

Economists are well aware of the increase in risks involved when a nation becomes an active part of the global economy and takes part in the global movement of capital. From the transfer risks involved when the currency of obligation become unavailable to the borrower regardless of its financial condition, to the country risk associated with the economic, social, and political environment of the borrower's country, economics at the international level demands that more details be considered. If one may conceive of a national economy as a type of building, prudential institutions are surely its foundation. The international standards and codes that regulate these institutions are being put in place to make the foundations secure enough to weather the conditions created by capital mobility. The international financial community needs to monitor these standards because it will improve the health and stability of members' economies at the most fundamental level.

V. Incentives for Country Participation

Under the aforementioned joint IMF-World Bank Financial Sector Assessment Program, both institutions are jointly carrying out in-depth assessments of selected countries' financial systems with a view to identifying systemic strengths and vulnerabilities. The IMF uses its findings to produce Financial Sector Stability Assessments (FSSA) in the context of its surveillance. A by-product of the FSSAs is an assessment of countries' implementation of financial sector standards. The IMF, with the cooperation of the World Bank, is developing a systematic process for assessing countries' adherence to internationally accepted standards in data dissemination, fiscal transparency, monetary and financial policy transparency, banking supervision, and other financial and economic policy areas.

The results of such assessments are reflected in Reports on the Observance of Standards and Codes (ROSCs). These experimental reports are a vehicle for assembling summary assessments of standards across a range of areas. It is a collaborative effort involving a range of national agencies and standard-setting bodies that is much like the program suggested for use by this report. Now is the time to move the FSAP program and its production of ROSCs from pilot status to actual program implementation.

There is an emerging problem related to the program, however, in that the United States Treasury is strongly encouraging the publication of these reports. Currently, a third phase of ROSCs is underway, spanning from October 1999 to September 2000, in which 24 countries are participating and have agreed to publication.[53] The first part of the rationale behind making this data and information on compliance with standards public is to allow market participants and creditors more materials to work with when making investment decisions. The U.S. Treasury, in the spirit of venture capitalism, believes that the absolute top priority is market competitiveness, and that making this sensitive information public would only enhance international competition. Another reason that is commonly offered is that by making this information public, it becomes an incentive for members to comply with standards, aggressively seek improved early warning systems, and generally to keep their financial houses in better order.

The essential idea at work here is that if countries begin publishing data on compliance with early warning systems and international codes, that it will create peer pressure for all other members to do the same. Nations understand that it would arouse suspicion among creditors if they were to decline publication as others accept the prospect. Confronted with the real pressure of presenting this information to creditors, nations will, in effect, try harder to align themselves with international best practices, so as not to create concern among potential investors.

Notions such as these are built upon considerable assumptions. The most important of them being that for developing nations to keep up with industrialized ones in terms of compliance with standards and early warning system production, it is only a matter of desire. Scholars fixated on complete transparency neglect to realize that it is simply not feasible for developing nations to comply with these changes on a rigid time schedule. Also, publishing the data to creditors is antithetical to a system that allows members to design their own programs with their special needs and abilities in mind. The marketplace, uncompromising in its nature, would pressure members into designing programs similar to the other members, mainly the industrialized countries, instead of ones that are fundamentally right for themselves. Pressuring countries of unequal circumstances to disseminate information at the same time creates an element of competition between nations that corrupts the spirit of community needed to facilitate the establishment of international warning systems and compliance with international standards. While nations may never be “equal” in quantitative economic terms, competition may safely resume its rigorous pace after these programs have been launched.

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[53] U.S. Department of the Treasury. “Report on IMF Reforms.” Report to Congress in accordance with Sections 610 (a) and 613 (a) of the Foreign Operations, Export Financing and Related Programs Appropriations Act. Updated March 2000. p 14.

This is not to say that program incentives are completely unnecessary, only that they should be designed with an appropriate amount of pressure to suit the times. Armed with the knowledge that too much pressure in this realm may be detrimental to early warning program design, the international community should encourage emerging market economies to keep their financial houses in order by enlarging rewards for their efforts. The Council on Foreign Relations sponsored an Independent Task Force in 1999 to investigate the future international financial architecture, and created a report entitled: "Safeguarding Prosperity in a Global Financial System." Contained in this report is a policy initiative called "Greater Rewards for Joining the Good Housekeeping Club," which suggests a more positive approach to incentives rather than forcing nations into competition.[54]

A. Progress Reports

The report recognizes that "good housekeeping" would cover a range of economic policies and institutional reforms. The term encompasses features that the early warning systems are designed to detect, such as: pursuing sound macroeconomic policies, including avoidance of large budget deficits, maintaining strong and well-regulated banking an financial systems, shunning heavy reliance on short-term borrowing, and other related details to protect against shocks and payments imbalances. The Council has put forth the resolution that:

> "Henceforth, the IMF should lend on more favorable terms to countries that take effective steps to reduce their vulnerability to crises. To increase the private market payoff for good crisis prevention, the IMF should make public a "standards report" in which it assesses periodically each member country's compliance with international financial standards."[55]

This treatise concurs, and advances this resolution. The IMF should mobilize to produce qualitative "progress" reports based upon the efforts put forth by national authorities to continually target realistic goals for implementing indicators and designing effective early warning systems. Certainly, a developing nation would not be judged by the same criterion as a member of the G-7 organization of industrialized nations.

The report should cover the implementations that have been made, with an emphasis on progress over time. It should be fashioned to include the members' progress in designing early warning systems, as well as the implementation of international standards and codes of best practice. The IMF should be able to gauge a nation's overall

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[54] See CFR Report et al.
[55] See CFR Report et al. p 10.

success with standards by using the aforementioned compilation diagram 1.4, which presents a detailed picture of the array of standards being implemented. Progress reports should be published and distributed to the public, including potential investors. This should provide a proper incentive for members to comply with early warning program design without compromising sensitive data. Publishing only raw data may actually harm developing nations' opportunities for international investment, as more advanced nations' portfolios outshine them by direct comparison.

Further, the progress reports should not cause surprise for any member involved in this process. The IMF should submit progress reports to national authorities before publications are made, and allow nations to respond if they deem necessary. It is possible that, at certain times, the IMF's expectations for effort within a nation may diverge sharply from those held by the nation itself, and an explanation may be warranted in certain cases. In any event, this process should constitute an informal exchange between the IMF and the nation, preceded by comprehensive discussions. Nations should be warned from the outset of the goal targeting process if their decisions will warrant public reproach down the line. The central point of publishing a report of this kind is not to punish members, but rather to foster inspired cooperation for shared international goals in an evenhanded way.

The progress reports are a sufficient means of satisfying the need for incentives to support the early warning program and system of international standards. In terms of longer-range goals, however, the U.S. Treasury's desire to publish all of the results of Article IV Consultations and specific data from ROSCs is not an inherently flawed concept. Perhaps by staggering the time frames that industrialized and emerging countries will have to complete this process, a fair compromise can be made. For instance, nations may be ranked from the wealthiest to poorest according to GDP. Each year, approximately 20 nations could submit their information for publication on the World Wide Web and other databases for public access. That would mean the poorest nations would have nearly ten years from the present day to join their counterparts in this venture. The caveat for such a program, however, is that the methodology would have to be explained in advance to any potential users of the material. Full-transparency is a goal of many scholars, especially ones from the most industrialized nations. If capitalism is the choice of systems for our world's people, then full transparency does make complete logical sense. Competition inspired by capitalism becomes increasingly pure as information becomes vaster and more equally distributed. The problem, though, is that the global economic atmosphere of 2001 is not sufficiently prepared for such a goal to be met. The disparities between nations indicate that such transparency would most likely perpetuate a system in which the poor nations remain poor while the wealthy nations prosper from international investments.

When economists assess the situation in realistic terms, it becomes clear that additional time is needed for the emerging nations to align themselves with the goals for the new international financial architecture. With solid effort and continual progress in implementing the early warning system structure and the supporting international standards, the gaps could lessen in this coming decade. In order to be evenhanded in our progress toward free enterprise on the global level, one must not ignore these realities.

VI. Conclusion

The reforms suggested in this treatise, when viewed as separate proposals, could potentially overwhelm most analysts. The key to understanding this program for reform is to determine the way that each proposal naturally fits with the others to suit the needs of the IFI's and the individual nations. The reforms call for programs that bind national authorities and IFI staff members in a common goal: the prevention of global financial crises.

International standards for accounting practices, data dissemination, bank supervision, etc. must naturally exist to set the level of expectations for the global financial system to survive. The international standards and best practices that have been advanced to date are the products of the international institutions that were erected for that exact purpose: to oversee and protect the global marketplace. Each country, regardless of its stature, has a responsibility to strive to meet these international standards. Effort, rather than performance alone, should be the standard by which the world judges its international actors. The IMF, as centerpiece of the endeavor to coordinate programs of enhanced surveillance, should commit itself to fostering these efforts, and helping countries to make progress in monitoring their own financial and economic health.

Standards are an important feature of the movement for crisis prevention because they set up a common language among nations for interpreting the data of the larger surveillance system. International standards ensure that data in one nation has the same worth or "meaning" in every other nation. The larger program that these standards will enhance and support is the aforementioned Early Warning System. National authorities, working hand in hand with Fund officials, can utilize indicators of financial and economic system health that have been discovered and produced over the years. Nations will become accustomed, with sufficient time, to calculating data that essentially quantifies and describes the state of their economy, from the minute level of individual banks, to the larger systems level. The time frames for accomplishing this goal will be different among countries of different circumstances, but each will be enrolled in the same fundamental program, with the same fundamental purpose. This purpose is for nations to understand their economies, the movements of capital and how these movements simultaneously affect and are affected by the other actors in the system.

The most important objective of all is to find a vehicle for strengthening political commitment to these reforms, and for promoting ownership of the reforms-- especially among emerging countries. As argued earlier in this report, many of the problems in the international architecture reflect weaknesses at the national level, and these in turn can be fixed only if national governments muster the political will to do so. This report advances the recommendation put forth by the Council on Foreign Relations Independent Task Force of 1999, that a global conference to discuss the needed reforms would be the best way to reach a consensus on priorities and timetables for domestic actions that countries will need to take to strengthen national financial systems. Task force members argued that reform programs were most successful when the countries most affected participated directly in their design and when they "took ownership" of them. A global conference would allow many emerging economies to have a greater input into desired changes in the architecture away from the confines of an IMF program.[56]

The global conference could also include participation of officials from the regional development banks, in order to bring regional perspectives to bear on these reforms. This could also help to guard against a "one size fits all" approach to standards, and could increase support for reform. Also, increased regional discussion is one of the goals for enhanced surveillance of the IMF; including regional banks in the forum could move the group in this direction.

It is true that prospects for recovery from the Asian/global crisis have brightened over the past year; however, this improvement is not grounds for the international financial community to become complacent with the status quo. Momentum for enhanced surveillance should build from disturbing reports, which remind us that the horrors of the financial crisis are still a reality for many people. Oxfam International partners working with vulnerable communities in East Asia have reported serious increases in poverty. Studies into individual cases have found families living on $15 a

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[56] See CFR Report et al. p 80.

month or less. As more and more Asian workers are laid off or lose their jobs because industries are forced to shut down, families must choose between eating and keeping their children enrolled in school.[57]

The Fund says that the Asian financial crisis of 1997-9 was unusual. A 1998 report stated that the crisis was "structural" in origin. Unlike the majority of countries that approach the IMF afflicted with balance of payments and currency crises, the Asian countries had relatively solid fundamentals beforehand and, with the exception of Thailand, no genuine balance of payments problems. The crisis was preceded by a swell of capital inflows, which the Asian countries handled inadequately. Their banking and finance systems were fragile, weakened by irresponsible practices and insufficient regulatory systems, and, the IMF reported, foreign lenders habitually provided money "without due regard" for the structural weaknesses of the countries' financial systems. The amalgamation of a vulnerable banking system and an open capital account in these countries was, the IMF concluded, "an accident waiting to happen."[58]

What this should suggest to the international community is that the current surveillance system of the IMF is not sufficient. It is designed to capture the standard problems that most countries have typically had in the past, with macroeconomic fundamentals and balance of payments troubles. The IMF requires access to more precise and intricate data to diagnose system health correctly in this century. Research that has followed in the wake of the Asian crisis has produced indicators to be used in early warning systems that can reach the micro level of individual banks within nations. International standards and codes have been developed and reformed by various standard-setting bodies. The Financial Stability forum has compiled a set of 12 of these standards that it considers the most important for international endorsement. These are no small feats. It is time for the international financial community to seize the products of this extensive research and put it to use in Early Warning Systems.

The program will inevitably create additional work for the IMF, and additional costs. The increases in consultations, and data to be gathered, compiled and assessed will no doubt translate into additional expenditures for the Fund and the other IFI's coordinating on the program to bear. The question that needs to be answered then, is whether the international community would choose to spend this additional money on launching programs for enhanced surveillance, with the clear objective of preventing

[57] See Joseph Gathia et al. p 5.
[58] Jonathan E. Sanford; John P. Hardt; Dick K. Nanto; Robert Howe. CRS Report for Congress. "IMF and World Bank Activities in Russia and Asia: Some Conflicting Perspectives. March 15, 2000. p 7.

additional financial crises, or whether it is complacent enough to save money in the short-term, yet likely to allow similar crises to erupt in the future. The cost of financial crises will indeed be paid, mainly by the poorest, most unfit members of the affected economies. However, in truth, it is the entire community that will inevitably pay a price, in sacrificing the opportunity to bring the global economy to the next level of competition and coordination. Early Warning Systems represent the greatest prospect for the future of the global marketplace. This report urges officials to do everything possible to ensure that these programs are launched, in an efficient and evenhanded way. Officials should adopt a method that considers the discrepancies between wealth and capability of individual nations, but does not limit the vision that one day the global economic playing field may truly be a meeting place for equals.

Diagram 1.1 Macroprudential Indicators in a Selection of Recent Studies

Ssss Studies by authors Year of publication Focus of study B= Banking crisis C= Currency crisis	C-K 1996 B	F-R 1996 C	S-T-V 1996 C	H 1997 B	GH-P-B 1997 B	B-G 1999 C	B-P 1999 C	E-L 1998 B	E-R 1998 B	F 1998 C	H-P 1998 B	K 1999 B&C	K-L-R 1998 C	R-S 1998 C	DK-D 1998 B
Aggregated microprudential indicators															
Foreign exchange exposure		*	*	*					*	*	*	*			
Sectoral credit concentration					*					*					
Nonperforming loans					*										
Aggregate risk-based capital ratio					*										
Central bank credits to financial				*											
institutions				*			*								
Segmentation				*	*						*		*		
Ratio of deposits to M2 (or GDP)						*	*					*	*		
Stock exchange prices											*	*	*		
Aggregate average returns												*			
					*										
Macroeconomic indicators															
Lending booms (e.g. credit/GDP)	*	*	*				*	*					*	*	*
Asset price booms			*	*			*	*	*		*	*	*		*
Contagion effects		*						*		*	*	*			
External deficits		*	*				*	*					*	*	
Aggregated growth rate							*	*	*	*	*	*	*		*
Volatility of interest and						*	*		*		*	*	*		
exchange rates															
Terms of trade					*		*	*				*	*		*
Level of domestic interest rates	*				*		*				*	*	*		*
Exchange rate misalignments		*	*				*	*		*	*	*	*	*	*
Government recourse to banking					*				*	*	*	*			
system				*	*										
Volatility in inflation															*
					*										

Caprio and Klingebiel (C-K); Frankel and Rose (F-R); Sachs, Tornell, and Velasco (S-T-V); Honohan (H); Gonzalez-Hermosillo, Pazarbasioglu, and Billings (GH-P-B); Baig and Goldfajn (B-G); Berg and Patillo (B-P); Esquivel and Larrain (E-L); Eichengreen and Rose (E-R); Fratzscher (F); Hardy and Pazarbasioglu (H-P); Kaminsky, Lizondo and Reinhardt (K-L-R); Radelet and Sachs (R-S); and Dirguc-Kunt and Detragiache(DK-D)

Diagram 1.2 A Hypothetical Illustration of Diagnosis of Vulnerable Financial Institutions

Vulnerability Criteria	Exposure to Risk				Solvency Condition		Liquidity Condition			Profitability (ROA)	Supervisory Assessment		Totals	
Financial Institution	L/D Ratio (%)	NPL Ratio (%)	Property/ Share loans to total loans	Net FX exposure to capital	Current C?A ratio	Projected C?A ratio	LOLR support to bank capital	Compliance with SRR or LAR	Liquidity indicator	Net Profits to assets	Camel rating	Watch List	# of red lights	Share in total system assets
FI-1	59	17.0	35.0	20	7.5	5.0	60	N	-30.0	1.1	3	Y	8	10.2
FI-2	115	10.0	40.0	26	9.0	6.5	65	N	-12.0	1.2	4	Y	10	5.7
FI-3	130	14.2	30.5	15	6.5	2.5	120	N	-20.5	0.4	3	Y	10	2.5
FI-4	80	6.5	25.0	20	8.3	7.0	-	Y	10.0	1.2	2	N	2	13.0
FI-5	88	15.9	55.0	45	8.2	6.0	100	Y	-5.0	0.7	3	Y	8	8.7
FI-6	120	6.1	25.0	30	7.8	6.9	49	N	11.3	1.4	4	Y	8	5.0
FI-7	95	17.2	50.6	35	5.7	2.0	130	Y	12.0	-0.3	4	Y	10	4.0
FI-8	110	10.4	45.0	30	9.6	6.0	40	Y	15.6	1.3	3	N	5	3.7
FI-9	80	4.9	20.3	20	8.3	8.0	55	Y	10.4	0.5	2	N	2	8.3
FI-10	103	5.3	20.0	18	8.7	6.5	130	N	5.1	1.0	3	Y	7	5.5
FI-11	85	4.0	25.5	20	10.5	8.2	-	Y	20.5	2.0	2	N	-	4.1
FI-12	124	9.3	45.0	27	13.5	7.0	-	Y	15.0	1.8	3	N	5	6.4
FI-13	95	45.0	50.9	40	2.3	-3.2	-	N	7.5	-2.1	4	Y	11	6.6
FI-14	60	5.3	25.3	30	8.9	7.5	55	Y	12.0	1.1	2	N	4	4.0
FI-15	85	4.5	29.5	20	9.0	7.5	-	Y	15.0	0.9	3	N	3	6.5
FI-16	98	25.0	47.0	24	4.0	-2.0	45	N	-17.5	-0.5	4	Y	10	5.8
# Banks with red lights	9	13	9	8	6	14	8	7	7	7	5	9	5	-
As % of total # banks (16)	56%	81%	56%	50%	37%	87%	50%	44%	44%	44%	31%	56%	31%	24.6%

Diagram 1.3 Alternative Approaches to Diagnosing Financial System Vulnerability

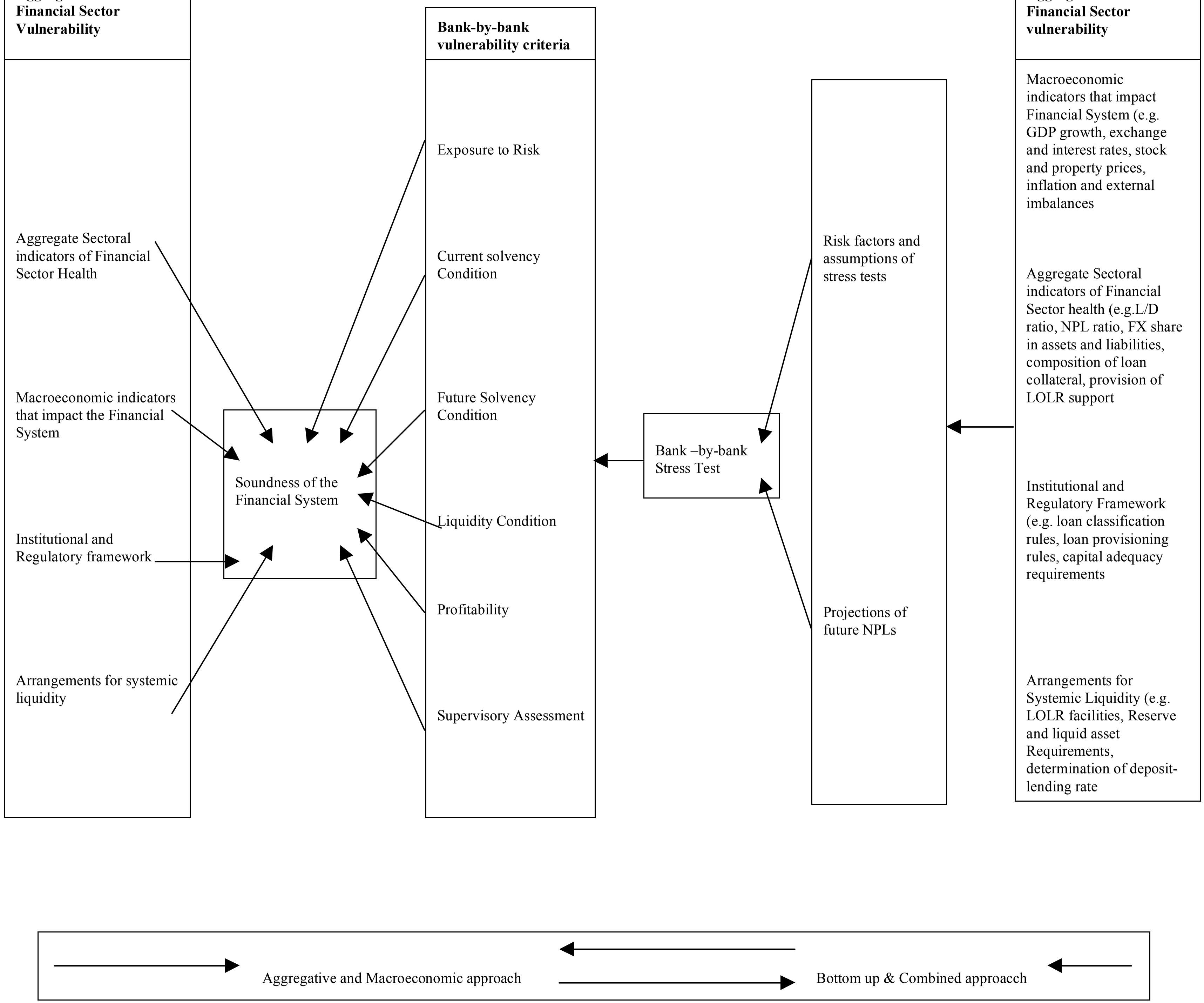

Diagram 1.4 Reports on Standards

	Coverage						Style Of Report	Input from	World Bank Involvement
	Core Standards								
	Data Dissemin-ation	Fiscal Policy	Monetary and Financial Policy	Banking Supervision Basle Core Principles	Non-core Standards				
				Disclosure Aspects Only	Descriptive Substantive Assessment	Provided By			
Collections *Of Modules*									
Hong Kong SAR	*	*	*	*	*	ADP, PDR	Staff Assessment	APD, MAE, FAD, STA, PDR	
Bulgaria	*	*	*	*	*	PDR, MAE	Staff Assessment	EUI, MAE, STA, FAD PDR	
Czech Republic	*	*	*	*	*	EUI/MAE/ WB	Staff Assessment	EUI, MAE/WB, STA	Securities industry governance
Uganda	*	*	*	*	*	AFR, MAE	Staff Assessment	AFR, MAE STA	
Tunisia	*	*	*	*	*	MED/ MAE/ WB	Staff Assessment	MED, WB, STA, FAD, MAE	In monetary and financial policy transparency, Basle Core Principles, securities regulation
Bangladesh	*						Staff Assessment	STA, APD	
Cameroon		*					Staff Assessment	FAD, AFR	
Colombia			*	*			Staff Assessment	WHD, MAE, WB	In FSAP mission
Ukraine		*					Staff Assessment	FAD, EU2	

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