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Analysis of financial crisis in Asia

On October 8–10, 1998, the Federal Reserve Bank of Chicago and the International Monetary Fund (IMF) cosponsored the conference Asia: An Analysis of Financial Crisis. The conference served as a forum to discuss the economic and financial turmoil in East Asia that started with the devaluation of the Thai baht on July 2, 1997, and soon spread to other countries in the region. More than 230 academics, policymakers, and market participants from the U.S. and 17 foreign countries attended the three-day conference in Chicago. This *Chicago Fed Letter* summarizes the conference discussions, which addressed the origins and effects of the crisis in East Asia, the role of the IMF in relation to this and other crises, concerns about the regulatory framework, research into early warning indicators of financial crisis, the effects of moral hazard, and lessons to be learned from the crisis.

Origins of the crisis

Discussion on the origins of the crisis revolved around two theories of financial crisis, one based on economic fundamentals and the other on financial panic. The theory based on economic fundamentals argues that weak domestic macroeconomic factors (for example, high fiscal deficits and rampant inflation) precipitate a balance-of-payments crisis. A country under a fixed exchange rate regime with weak macroeconomic fundamentals becomes vulnerable to a speculative currency attack. Defense against speculation drains the troubled country's foreign reserves, and an economic crisis ensues.

In contrast, theories based on financial panic attribute the crisis to an exogenous change in investor confidence, leading to liquidity problems. This loss of confidence among investors leads to a sudden withdrawal of short-term capital from the troubled countries. In East Asia, this difficult situation was exacerbated by the highly leveraged state of these economies, which held a large amount of short-term debt denominated in foreign currencies. As capital flight led to severe currency devaluation, it became more difficult for these countries to cover their foreign denominated liabilities, and they plunged into financial crisis.

In deciding which theory best explains the onset of the financial crisis in Asia, one must reconcile a number of inconsistencies between theory and reality. For example, many economic fundamentals in Asia were incompatible with an impending crisis. Many Asian economies were characterized by low inflation, above-average GDP growth (relative to 1990–94 levels), fiscal budgets that appeared to be in balance or surplus, and high rates of investment.

Inconsistencies also exist regarding the applicability of financial panic theories. The dramatic shift in investor confidence required by the theory is unlikely to have been completely exogenous. Economic fundamentals must have played a role in investors' minds. Furthermore, why did investors suddenly experience a loss of confidence? After all, investors knew the economic status of these countries well before the onset of the crisis.

Reuven Glick, Federal Reserve Bank of San Francisco, argued that these theories are not mutually exclusive and that the ultimate cause of the crisis may have been a mixture of both economic fundamentals and financial panic. However, the relevant weight of each theory is important in the assessment of the crisis. He and Professor Michael Dooley, Board of Governors and the University of California at Santa Cruz, concurred that understanding the causes of the crisis is critical in determining an effective response. Should the source of the turmoil be external factors, such as a financial panic, it would be fairly straightforward for the international community to design an appropriate response, such as imposing capital controls and other safeguards. However, if the crisis was caused by faulty economic fundamentals, then finding solutions would be more complicated as it would require political, cultural, and economic reforms.

While the conference participants did not reach a consensus on the exact theory to explain the crisis, the various theories they presented had many elements in common. These included: poor governmental policies, banking and corporate fragility, weak financial infrastructure, presence of moral hazard, lack of transparency with respect to financial institutions, dependence on short-term debt denominated in foreign currencies, and fixed exchange regimes.

The role of the IMF in the crisis

The purpose, activities, and future of the IMF were the subject of candid discussions. Bijan Aghevli, deputy director in the Asia and Pacific department at the IMF, provided an overview of the IMF's response to the crisis. Aghevli reminded the audience of the sudden change in perception of the Asian economic miracle. In the years prior to the crisis, observers marveled at the phenomenal economic growth of the Asian "tigers." The abundant flow of foreign capital seemed to support the political, economic, and cultural systems in these countries. However, as capital flows began to dry up and these countries plunged into crisis, public perception turned against the Asian tigers and the IMF.

Recent assessment of the IMF's actions in Asia has had many calling for reform of the organization. The Asian crisis has been a crucial test of the IMF's functions and, in the opinion of many, the organization has been found wanting. Critics like Anna Schwartz, National Bureau of Economic Research, and Professor Allan Meltzer, Carnegie Mellon University, argued that IMF policies are inconsistent with the current global economy. The IMF was created as part of the 1944 Bretton Woods agreements, when major economies were converting to a fixed exchange rate regime. The IMF was given the charge of maintaining fixed exchange rates and providing loans to member countries undergoing temporary current account balance-of-payments difficulties. After the collapse of the Bretton Woods System in 1971, most countries abandoned fixed exchange rates and adopted a floating exchange rate. Therefore, the role of the IMF to maintain fixed exchange regimes has arguably become obsolete.

Other critics questioned the appropriateness of the IMF's actions during the Asian crisis. Several observers suggested that the IMF prematurely rushed to extend funds to troubled countries, rather than waiting to see if funds could be acquired from private financial markets. Such actions, some argued, worsened the situation by providing a signal that the IMF would always come to these countries' rescue. The IMF was naive in its agreements with Asian countries, some observers said, as it released funds with few guarantees that countries would comply with its suggested reforms, and its enforcement of such agreements was especially weak. Rather than maintaining a traditional role of lending, the IMF has become involved in mandating structural reforms for borrowing countries.

In addition to accusing the IMF of prescribing ineffective and perhaps inappropriate reforms, some in the international community have questioned the IMF's monetary policy recommendations to Asian economies. Several observers argued that the IMF's policy recommendations and reforms worsened the crisis. As a result, there appears to be a growing belief that the IMF must redefine its purpose and policies to remain effective under contemporary economic conditions.

IMF response

In keynote addresses, Stanley Fischer, managing director of the IMF, and Karin Lissakers, executive director of the United States at the IMF, acknowledged the validity of many of the criticisms aimed at the IMF and admitted some signs of the pending crisis were overlooked. While economic fundamentals in Asia showed promise (for example, low inflation, fiscal balance or surplus, and high levels of foreign reserves), the speakers conceded that many warning signs were ignored. For example, the IMF should have noticed that bank and corporate balance sheets were weakening in Korea, where companies were maintaining excessively high debt to equity ratios, and that current account deficits were increasing rapidly.

However, both speakers argued that the IMF was not always to blame in not anticipating the crisis; the governments of some of the countries involved also withheld information from the IMF. The IMF was unaware of these governments' costly attempts to defend their exchange rates, which soon depleted the bulk of their foreign reserves. By the time they turned to the IMF for assistance, these economies had reached a critical stage of vulnerability. The nature of these countries' hedging of currency risk was also hidden from the IMF. Such strategies to offset risk, including volatile derivatives and other instruments, are very difficult to monitor because they are off-balance-sheet transactions. Prior to the crisis, there was hedging of currency risk with Asian and Russian financial institutions unprotected from currency risk. The collapse of these unhedged counterparties during the crisis worsened the financial contagion. Lissakers attributed a large portion of the crisis to derivatives, calling them the "black hole of this crisis."

Fischer and Lissakers defended the early IMF recommendation to tighten fiscal policy in Asian economies. Tight fiscal policy was a consistent response to an "overheated" economy. As such fears became unwarranted, the IMF abandoned those recommendations in favor of a looser fiscal stance. Urging Asian countries to adopt a restrictive monetary policy was also controversial. Many believed abandoning the defense of national currencies was the better policy, as high interest rates can often impose serious damage on the real economy. The IMF had a difficult choice in making its monetary policy recommendations. Easy monetary policy would encourage consumer spending and borrowing but would lead to a further devaluation of the currency. On the other hand, restrictive monetary policy would have the effect of driving up interest rates, thereby protecting the value of the currency. Such high interest rates would, however, discourage borrowing and spending and exacerbate the economic situation. The IMF believed that restrictive monetary policy was the better option during a currency crisis. An increase in domestic interest rates made the currency more desirable and penalized speculation. High interest rates would not seriously damage the economy, if the period were brief enough. The true downfall of the policy, however, was its inconsistency. Asian governments confused the international community by pursuing erratic monetary policy, which undermined its effectiveness. In any event, the debate was largely academic, because, regardless of which policy decision was made, either shock would have damaged the Asian economies in their fragile state.

Future of the IMF

Conference participants offered many proposals for changing the role of the IMF. Some argued that the IMF should encourage flexible exchange rates for member countries, because such rates protect against contagious currency depreciation and other external shocks, and that it should adopt stricter policies in its lending to member countries. Others proposed that membership of the IMF should be more exclusive and that countries should satisfy certain economic requirements before they become eligible for IMF lending. Furthermore, the IMF should lend only on a collateralized basis at a penalty rate to discourage dependency. Exclusivity and

the imposition of a penalty rate would reduce moral hazard and encourage structural reforms. Countries would emphasize prevention, rather than dependence with respect to IMF assistance. In lieu of direct lending, the IMF could facilitate lending arrangements between illiquid economies and private financial markets. Such an approach will be necessary as the IMF lacks both the funds and the characteristics to be a lender of last resort for the international community.

Strengthening the regulatory framework

Tom de Swaan, past chairman of the Basle Committee on Banking Supervision, described the weaknesses in the regulatory framework in Asia that contributed to the crisis. De Swaan called for effective banking supervision and identified the following five preconditions: sound and sustainable macroeconomic policies, a well-developed public infrastructure, effective market discipline, procedures for efficient resolution of problems at banks, and mechanisms for providing an appropriate level of systemic protection. Stable macroeconomic policy is a prerequisite for stability in the financial system. An efficient infrastructure, such as a well-defined legal system and consistent accounting standards, facilitates supervision. Effective market discipline is necessary to provide internal and external incentives to properly manage risk. Established procedures to resolve failing financial institutions insure an efficient financial system. Finally, systemic protection or a safety net in the form of deposit insurance restricts bank runs, which could introduce instability in the financial system.

While many conference participants agreed with the weaknesses of the regulatory environment in East Asia, some observers proposed alternative reforms to strengthen the framework. Professor George Benston, Emory University, and Meltzer argued that, while supervision and regulation may reduce the risks of future crisis, market-based reforms would be more effective. They also argued that the entry of foreign banks is essential to providing stability to the financial system. These banks would provide diversification and competition, which would encourage efficiency in the financial sector. Benston also recommended a switch from heavy-handed regulation to a market-driven approach. He stressed that such monitoring could be achieved by requiring banks to issue subordinated debt, which is junior in its claim on assets. When a bank becomes insolvent, subordinated debt holders of that bank could lose their entire investment. This creates a strong incentive for debt holders to monitor their banks, thus discouraging risky behavior. These initiatives would encourage effective market discipline and would be easier to implement than comprehensive structural reforms, which may have to overcome political and cultural barriers. While such market reforms drew support from many conference participants, some raised concerns about the ability of markets to alleviate the financial turmoil in Asia. As Carl Lindgren of the IMF lamented, “When we need markets the most, they work the least.”

Robert Johnson, former investment manager at Moore Capital Management, addressed similar market concerns. Economic theory establishes that free markets are the best solution, but given the damage caused by the volatility of capital markets, Johnson argued that a retreat by certain Asian countries from financial liberalization toward restrictive capital controls may be the best choice in the current situation. Although such policies may stabilize these economies in the short term, they could inhibit economic growth if allowed to persist, longer term. Conference participants agreed on the need for alternative strategies to protect against the volatility of free capital markets while fostering economic growth.

Early warning indicators

Graciela Kaminsky, George Washington University; Morris Goldstein, Institute of International Economics; Jerome Fons, Moody’s Investor’s Service; and John Wing, Illinois Institute of Technology and ABN AMRO, discussed ongoing research on identifying new early warning indicators. This research is important because most current indicators, such as interest rate spreads and credit ratings, have been relatively ineffective in predicting crises. The greatest impediment to developing effective indicators is the current lack of transparency within financial systems in Asia. Poor accounting practices and delayed or incomplete financial reporting represent obstacles to accurate and timely analysis of these countries’ economic health. The low quality of financial information creates the problem of “garbage in, garbage out” in sophisticated models that attempt to determine financial risk.

However, transparency within the financial system would not solve all of the problems. Eric Rosengren, Federal Reserve Bank of Boston, pointed out that perfect knowledge of the workings of a financial system does not eliminate its faults. Several political and cultural barriers exist within Asian financial markets, and these barriers are largely responsible for the economic turmoil. Comprehensive reforms will have to take place before the benefits of transparency will bear fruit. Proponents of early warning indicators conceded that their work is at an early stage, but they believe it is useful in providing some warning of financial crisis. Critics acknowledged the importance of continuing research in this area, but were skeptical of the usefulness of such indicators in the near term.

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Presence of moral hazard

Another topic of discussion at the conference was the role of moral hazard in precipitating the crisis. Moral hazard added to the crisis in two distinct ways. One focuses on the role of moral hazard within Asian financial markets and the other on the role of the IMF. Many conference participants expressed concern about the implicit government guarantees given to or perceived by investors in Asian financial markets. Such conditions encouraged risky behavior by financial institutions. Bank managers perceived no downside risk, because they received high rates of interest in good times and expected the government to bail them out in bad times. Market discipline suffered due to a lack of proper incentives. Charles Calomiris, Columbia University, agreed with Benston that subordinated debt requirements could reduce the moral hazard problem by inducing intensified monitoring by market participants.

With regard to the IMF's role, some observers argued that the mere existence of the IMF encouraged risky national policies. Individual countries may tend to conduct such policies because they believe they can rely on assistance from the IMF in the event of a crisis. Michael Mussa, director of research at the IMF, acknowledged that the IMF's rescue programs introduce disincentives but presented two convincing alternative views. First, he pointed out that the damage experienced by a nation in financial crisis is so comprehensive that the IMF's programs could not offer enough protection to encourage a nation to willingly court a crisis. Second, the damage caused by the presence of moral hazard is outweighed by the benefits of international stability gained through international rescue programs.

Lessons from the crisis

Despite the lively debate at the conference, by the end most participants agreed on a number of issues. The financial turmoil in Asia is ongoing and its impact is more severe than originally thought. Countervailing factors served to obscure the origins of the crisis. Although signs of weakness were apparent, such as high current account deficits, high debt leveraging, and fragility within the banking and corporate sectors, other signals, such as low inflation and high savings rates, pointed to economic good health. Although it is difficult to determine the exact causes of the debacle and the order of their significance, conference participants drew up a list of likely candidates. Among them were weak economic fundamentals, financial panic, poor governmental policies, banking and corporate fragility, weak financial infrastructure, moral hazard, lack of transparency, dependence on short-term debt, and fixed exchange regimes.

Lessons from the Asian financial crisis may permit the development of effective responses to future crises. Countries will be less likely or less able to become dependent on foreign capital inflows to finance their debt. Reliance on fixed exchange rate regimes will be discouraged, given their vulnerability to speculation and contagion. Structural reforms will require a great deal of effort, sacrifice, and time. Such reforms must address the problems of fragility. Reforms will not be restricted to Asian countries; as a result of the crisis, the IMF is likely to adopt several structural and procedural changes to increase its effectiveness in the future.

Overall, the conference was successful in bringing together different views on the financial turmoil in Asia, clarifying the issues, and advancing the search for means of prevention or minimizing the impact of such crises in the future.

—Surya Sen
Associate economist

Proceedings of the conference will be published early in 1999. For more information, contact Ella Dukes in the Economic Research Department of the Federal Reserve Bank of Chicago, telephone (312) 322-5757 or email Ella.Dukes@chi.frb.org.

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