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The Asian Financial Crisis Ten Years Later: Assessing the Past and Looking to the Future

Good afternoon. On behalf of the Federal Reserve Bank of San Francisco, the Asia Society of Southern California and the Pacific Council on International Policy, I'm delighted to welcome you all here. This is the first in a series of presentations, seminars, and conferences the San Francisco Fed will be involved with over this year as we explore various facets of the Asian financial crisis, focusing on the stability and resiliency of financial sectors today and remaining challenges in the future.

At the time of the crisis, I was the Chair of President Clinton's Council of Economic Advisers, and, as you may imagine, it was definitely a "front-burner" issue for us. As the crisis spread from country to country, there was deep concern about how big the impact would be on the U.S. economy, and the markets certainly were jittery: that October, the Dow Jones Industrial Average plunged over 500 points. For the five Asian nations most associated with the crisis—Thailand, Korea, Indonesia, the Philippines, and Malaysia—the toll in both human and economic terms was enormous: in 1998, these countries saw their economies shrink by an average of 7.7 percent and many millions of their people lost their jobs. More broadly, there was concern that the crisis had revealed new sources of risk in the international financial architecture. Now that I am a Reserve Bank President with responsibilities for overseeing financial institutions, I have an even

greater awareness of how these issues remain vital for maintaining financial stability today.

In my remarks this afternoon, I would like to provide some background for the discussions that will take place in the follow-up events marking the tenth anniversary of the crisis. Let me note that, as usual, these comments are my own and do not necessarily represent the views of my colleagues in the Federal Reserve System. I will first review the major strands of thought in the literature on the causes of the crisis, highlighting some of the vulnerabilities that were contributing factors. Then I will turn to conditions in the affected countries today and examine how their policy responses to the crisis have shaped the current Asian financial environment. I will round out my remarks with some thoughts on lessons learned, particularly for international financial institutions, and observations on China in the current environment.

Before I begin, I should note that the subject is not really a *single* Asian crisis, but rather several crises. The afflicted countries obviously differ very much from one another, both in terms of their levels of economic development and their institutional features. Therefore, the causes of the crises and, likewise, the policy reforms that have been adopted in the last 10 years are not uniform for the region as a whole. Nonetheless, there are some important overarching themes in these developments, and I will try to draw them out.

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Let me begin by looking back. The financial crisis in Asia was in many ways very different from others. For example, earlier in the 1990s, both Mexico and Argentina suffered financial crises, largely stemming from their unsustainably high budget deficits

and soaring inflation. By contrast, in most of the affected Asian countries, during the years leading up to the crisis, growth in economic activity was strong, inflation was relatively tame, investment was robust, and, with their budgets in surplus, their fiscal houses appeared to be in order.

Indeed, these countries had enjoyed extraordinarily fast growth for decades. As their success grew, the international community encouraged them to open their economies to foreign capital and to liberalize their financial sectors, and there was movement in that direction beginning in the late 1980s. With freer capital markets and fewer distortions in the financial sector, foreign capital flooded in, typically as short-term loans to banks; by 1996, capital inflows had grown to $93 billion.[1]

How, then, did 1997 become the year of the "sudden stop" in East Asia—that is, the year that foreign investors not only stopped flooding these countries with capital, but, in fact, reversed course and pulled capital out, in a dramatic way, as $93 billion of inflows became over $12 billion of outflows?

The literature exploring this question is massive, and has generally offered two kinds of explanations, which are not necessarily mutually exclusive. According to one view, this situation is best characterized as a "liquidity" crisis—much like a banking panic, where depositors' fears about insolvency, well-grounded or not, become a self-fulfilling prophecy as their withdrawals en masse bring the bank to ruin. In the case of the East Asian economies, foreign investors may have lost confidence in their fundamental soundness, perhaps because of news about the failures of the Korean chaebols Hanbo and Sammi Steel, as well as of Thai nonbank financial institutions. This loss of confidence

[1] Source: Radelet and Sachs (1998). These inflows correspond to 8.32% of GDP for the five Asian nations in 1996 (based on World Development Indicators).

could have led investors to unload their holdings of those countries' securities in a kind of panic-selling. Thus, in this view, whether or not the loss of confidence was warranted, it became a self-fulfilling prophecy, as the downward pressure on Asian asset prices ultimately led to the deterioration in fundamentals that investors feared.[2]

The second view focuses more on the vulnerabilities that existed in these nations' economic fundamentals, which threatened to lead to solvency difficulties. One such vulnerability was the pursuit of risky lending practices by financial intermediaries. In part this was due to problems with the quality of supervision and regulation of the financial sector. For example, in Thailand in the early 1990s, although regulatory requirements for banks were rigorous, actual enforcement of those requirements was less so—sometimes far less so, according to some studies; moreover, regulation of nonbank financial institutions was almost nonexistent. But the problem also lay with the long tradition of so-called "relationship lending." Rather than basing lending decisions on sound information about the fundamental economic value of specific investment projects, banks and other financial intermediaries based them on personal, business, or governmental connections. As a result, bank loan portfolios became particularly risky. And these risks became grim realities when economic conditions slowed in these countries in early 1997, as many firms, such as the Korean chaebols I mentioned, faced serious financial difficulties.[3]

In spite of the risky lending practices that prevailed before the crisis, foreign investors poured money into these countries at record rates. Their willingness to do so appears to have stemmed in part from a second area of vulnerability—a perception that

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[2] See Chang and Velasco (2000), which analyzes the Asian financial crisis by building directly on old models of bank runs.
[3] Radelet and Sachs (1998).

the governments of these nations stood ready to intervene to forestall bank failures. Here Korea provides a particularly clear example. Foreign branches of Korean banks were able to build up huge liabilities before the crisis, partly because foreign creditors correctly perceived that if their parent banks found themselves in financial difficulty—as they did after the onset of the crisis—they would receive assistance from the Korean government. Indeed, one study documents that foreign creditors began refusing to refinance their outstanding obligations when the level of these liabilities began to approach the Korean government's holdings of foreign reserves.[4] When foreign creditors refused to roll over their short-term loans, capital inflows were quickly replaced by capital outflows.

This brings me to a third vulnerability—explicitly or implicitly pegged exchange rate regimes, which are subject to speculative attacks if the markets perceive that the true value of the currency is misaligned with its pegged value. One explanation for the attacks that drove currency values down in Asia is tied to concerns about possible big government bailouts of the strained banking sector.[5] If foreign investors expected that the bailouts would lead to high fiscal deficits, that expectation, in turn, would raise concerns that the governments might force their central banks to monetize their deficits, resulting in higher inflation and depressed currency values.

As we all know, the speculative attacks on exchange rate pegs appeared to spread from one country to another, a phenomenon now commonly referred to as "contagion." Take the case of the attack on the Korean won that occurred shortly after the Thai baht fell and the Taiwanese dollar was devalued. One explanation for it hinges on trade competitiveness; that is, speculators might have expected the Korean government to be

[4] Dooley and Shin (2001).
[5] See, for example, Corsetti, Pesenti, and Roubini (1999) and Burnside, Eichenbaum, and Rebelo, (2001).

more willing to let the won depreciate once the other currencies had fallen in order to stay competitive with its Asian neighbors. Alternatively, speculators might have expected that the crises in those countries would worsen Korea's export prospects, leading to an economic downturn in Korea which would put downward pressure on the won.

Whatever the source of the contagion, the currency depreciations had devastating consequences due to the prevalence of "currency mismatches." These existed because both domestic banks and their client firms had been issuing dollar-denominated liabilities to finance their investments, whose returns were denominated in local currencies. Presumably, they held these unhedged positions either because they had few other options, or, because at the time, they assumed that the pegs would hold.[6] In any event, once the pegs collapsed, their balance sheets deteriorated severely, leaving them unable to service their debt obligations when their creditors refused to roll over their dollar liabilities.

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With their economies at such a low ebb, the expectations that the Asia crisis nations would stage a full and fast recovery were, frankly, not very high. Yet, remarkably, a full and fast recovery is exactly what happened. Between 1999 and 2005, these nations enjoyed average per capita income growth of 8.2 percent and investment growth averaging nearly 9 percent, with foreign direct investment booming at an average annual rate of 17.5 percent.[7] Moreover, all of the loans associated with the International

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[6] Some Asian banks did denominate their loans in dollars. However, their claims were still primarily on firms that earned revenues in local currency. As such, in the wake of a local currency depreciation, the quality of these loans deteriorated as default risk increased. In this way, even banks that issued local loans denominated in dollars faced a currency mismatch.

[7] Investment measured as gross fixed capital formation. Figures are from 1999-2005. FDI figures are from 1999-2004.

Monetary Fund's assistance programs during the crisis have been paid back and the terms of those programs have been fulfilled.

At least part of this success is likely due to policy changes that have gone some way toward addressing the vulnerabilities I discussed. One such policy change has been an increasing shift away from targeting exchange rates and toward targeting an explicit desired inflation rate. Korea moved in this direction in 1998, followed by Thailand in 2000 and Indonesia in 2005. Changing the anchor for these countries' monetary and foreign exchange policies has helped to mitigate the possibility of currency mismatches by encouraging private agents to hedge their currency positions, while also allowing for greater domestic flexibility in response to external shocks.

Now, it should be admitted that these countries still manage their exchange rates to some extent. In fact, recent moves by the Thai government indicate an increased emphasis on this issue. After a series of foreign exchange interventions failed to stem the upward pressure on the baht last year, the Thai government imposed controls on capital inflows last month, first limiting sales of short-term securities to foreign investors and then imposing a de facto tax on portfolio capital inflows by requiring 30 percent of inflows to be placed in a non-interest bearing "reserve account," refundable in full only after a year. While an investor sell-off of Thai equities forced the government to repeal some of the controls the next day, its determination to limit exchange rate movements appears to have increased.

The more typical way for these countries to limit exchange rate movements has been through intervention and the accumulation of dollar reserves. As a result, between

1997 and 2005, foreign exchange holdings in the five crisis countries quadrupled to over $378 billion.[8]

While efforts to limit exchange rate appreciation may be motivated in part by competitiveness considerations, this build-up in reserves may also be motivated by memories of the crisis, as these funds could be used to smooth the effects if another "sudden stop" occurred.[9] In any event, it is fair to say that the East Asian nations as a group have come a long way towards achieving exchange rate flexibility and price stability compared to where they were in the 1990s, and the improved macroeconomic conditions likely have played a role in their superior performance and in their renewed attractiveness as destinations for foreign direct investment.

Korea, Malaysia, Thailand, and Indonesia have also moved to improve banking supervision and regulation and to introduce more market discipline since the crisis. Korea's progress in strengthening its supervision of financial institutions is especially significant.[10] Korean commercial banks have also adopted Western-style board governance systems, where the majority of board members are outside directors, and they have reformed their executive compensation processes, with banks introducing or strengthening executive stock option programs geared towards tying compensation more closely to bank performance.[11] Korean banks also quickly cleansed their balance sheets of nonperforming loans.

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[8] ECB Occasional Paper #43, Annex 1, p. 26, February 2006.

[9] For example, Aizenman and Lee (2005) demonstrate that holdings of foreign exchange reserves are more closely related to country characteristics, such as the degree of capital account liberalization, that would indicate the need for a precautionary war chest.

[10] Hosono (2005).

[11] Choe and Lee (2003).

Among the other crisis nations, supervision and accounting transparency also have improved, and banks in Thailand, Malaysia, and the Philippines have succeeded in ridding their balance sheets of nonperforming loans. However, recent studies suggest that there are still weaknesses in enforcement, as there were before the crisis, which limits the regulatory gains achieved through tightening accounting standards.[12] Nevertheless, compared to 1997, significant progress has been made. Indonesia has rebuilt and recapitalized its devastated banking sector. Malaysian banks' new emphasis on lending to consumers and small and medium-sized enterprises has moved them away from relationship-based lending that was the norm prior to the crisis. Thailand has brought its previously unregulated finance companies under central bank supervision.

Another step towards decreasing the extent of bank-centered finance and the scope of implicit government guarantees on investment has been the development of local currency bond markets. Prices in these markets adjust to changes in perceived risk automatically and in ways that can pose substantially less systemic risk than foreign-currency-denominated short-term loans. This solution complements the other reforms, because, in order to function well, bond markets require timely, honest, and credible reporting of firms' financial circumstances—in other words, a transparent, well-regulated, and well-functioning set of capital markets. Thus, borrowing in bonds from a large number of creditors could reduce the relationship lending problems believed to have played a role in poor lending decisions made by Asian banks before the crisis. Indeed,

[12]For example, see Ball, et al. (2003).

some have even argued that developed local bond markets could make it less costly to securitize bank loans and help banks better manage risk in their lending portfolios.[13]

To promote the development of local currency bond markets, a group of regional central banks launched the first stage of an "Asian Bond Fund" in 2003.[14] To date, however, this Fund has not led to much growth in bond trading and issuance, in part because the fiscal prudence in a number of Asian countries has meant that too few government bonds are available to form a vibrant market in public debt securities. This in turn limits the corporate bond market, since government bonds add to the overall volume of bonds issued in that currency and thereby increase overall market liquidity. Bond market growth also requires a solid financial infrastructure, including a sound legal structure, effective credit ratings agencies, and a strong institutional investor base. Countries that develop this infrastructure will likely have a better chance at seeing meaningful growth in local bond markets.

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So far I have discussed several policy changes that the Asia-crisis nations have made to strengthen their financial systems and thereby avoid another crisis. But even with these measures in place—indeed, even with eventual improvements in these measures—there will *always* be some residual risk of systemic crises. Therefore, an assessment of the state of Asian financial markets today must include an examination of the capability of the international financial architecture and its major institution, the International Monetary Fund, to handle future financial crises.

[13] Eichengreen and Luengnaruemitchai (2004).

[14] This group is known formally as the Executives' Meeting of East Asia-Pacific Central Banks and Monetary Authorities, and it includes Australia, China, Hong Kong, SAR, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, and Thailand.

Some lessons have clearly been learned. One relates to the conditions for opening a country's capital markets. With a strong financial system, the arguments in favor of unfettered capital flows are strong. But during a transition from a financial system with evident vulnerabilities, the path to the liberalization of capital accounts should be gradual and carefully managed. Failure to do so can expose the regulatory and moral hazard difficulties experienced in Asia.

Another lesson is one that the Fund has learned, namely, that its adjustment programs should be tailored to individual nations' characteristics.[15] For example, some critics have charged that while the austerity measures it advocated may have worked well in other financial crises, in the case of Asia they may have actually exacerbated the downturn.[16] Although that claim remains controversial, the Fund has adopted new guidelines to ensure that its adjustment programs are shaped by individual country characteristics and that local authorities have a voice in steering adjustment policies during Fund-supported lending programs going forward.

A third lesson is that transparency concerning both overall macroeconomic conditions and individual firm accounting is needed to guide successful domestic investment decisions. Here, too, the Fund has adapted by strengthening its international surveillance activities to provide early warnings of impending crises. In 1999, the Fund, together with the World Bank, launched the Financial Sector Assessment Program, with the aim of assisting emerging market economies in identifying weaknesses in their domestic financial sectors.

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[15] For example, see Independent Evaluation Office of the IMF report on "The IMF and Recent Capital Account Crises: Indonesia, Korea, Brazil," (2003).

[16] Stiglitz (2002).

Of course, in the decade since the Asian financial crisis, there have been other crises, and these, too, have led to some reforms in the international architecture. A notable episode was the Argentine crisis of 2002. This was the first large modern default where creditors were not primarily banks, as they were in Asia, but rather a multitude of bond claimants from many countries. On the positive side, the contagion issues that were prevalent in Asia did not arise, as the Argentine risk was well diversified across a large group. On the negative side, renegotiation efforts were hindered by the need to address the economic and legal differences of a large and disparate set of claimants.

Anticipating the challenges raised by the movement toward predominantly bond-based finance from bank-based finance, the Fund has explored the question of lending workouts; it has even considered the possibility of formalizing sovereign debt renegotiations with mechanisms analogous to the bankruptcy procedures that prevail in domestic bond markets. For now, however, it appears that the problems of renegotiating with a broad set of claimants are being addressed in a less centralized manner, as governments such as Mexico have successfully issued bonds containing "collective action clauses" that establish at issue the procedures for orderly renegotiation in the event of default.

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In assessing financial conditions in Asia ten years after the financial crisis, one must consider the ascendance of China as a key economic power in the region. I did not mention China earlier in my discussion because China was not drawn as deeply into the financial crisis that spread through the region, even though it, too, had problems with its financial sector. The reason it stood apart is that it differed from the crisis countries in

two important respects. First, its capital account was more closed, and second, much of the foreign investment was not short-term loans but direct investment, which in many cases involved actual plants and factories—"steel in the ground." Today, despite China's recent successes, it still shares some of the vulnerabilities faced by the Asia crisis countries in the 1990s. For example, although it has made significant progress in reforming its banking sector through reducing nonperforming loans, the government still has a degree of influence in Chinese bank lending decisions, and some have expressed continuing concern over the health of the banking sector. Commenting on the challenges China faces in its corporate governance and accounting standards, Chairman Bernanke noted recently[17] that progress has been made in these areas, but large benefits could be achieved from further concentration on these issues.

While China has increased the flexibility of the renminbi, permitting it to appreciate by 6.5 percent against the dollar since it was officially unpegged in July 2005, it is still much less flexible than the currencies of the Asia crisis countries. The central bank has resisted pressures for more rapid appreciation of the renminbi by intervening in the foreign exchange market and building up its holdings of foreign reserves. Limiting appreciation of the currency in this manner complicates the use of monetary policy to produce an orderly slowdown in China's currently booming economy.

As an emerging leader within the region, China could also play a major role in promoting regional exchange rate flexibility. For example, Thailand's Finance Minister recently argued that his nation's economic conditions would be helped by a faster pace of renminbi revaluation. If China were to move more quickly, it could well encourage even greater exchange rate flexibility among the East Asian fledgling inflation-targeters, as

[17] Bernanke (2006).

they would be able to pursue their goal of reaching price stability without losing export competitiveness.

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In conclusion, the crisis illuminated the importance of sound financial policies, including strong accounting principles and adequate regulatory oversight, as well as the importance of sound macroeconomic policies, including exchange rate flexibility. The good news is that, since the crisis, the Asian countries as a group have made great progress in these areas. Still, there are reasons to believe that continued vigilance will be required to prevent or ameliorate crises in the future. First, there is some risk that the policy reforms that were achieved in the wake of the disastrous crisis could be scaled back in the current era of relative regional prosperity. Second, private agents may respond to the relatively tranquil current economic environment by dropping some of the prudent investment practices that were adopted following the crisis.

The Asian financial crisis had a profound effect on the people and economies of the region. For that reason, it is worthwhile exploring the fundamental causes of the crisis, the recovery paths countries have adopted, and any current vulnerabilities that could undermine the stability of the financial system. The two conferences in June and September at the San Francisco Fed will delve more deeply into these issues. By looking ahead with that tumultuous event in mind, we hope to provide important insights for countries within the region, for the U.S. and Europe, their trading partners, and for emerging market economies around the world.

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