It is a pleasure to be here at the San Francisco Fed and to join you in looking back at the Asian financial crises. Many people in this room played critical roles in the drama of that time. We did not always completely agree, but we usually found a way to work together on a common strategy.

The crises hit with remarkable speed and force, with substantial effects on the world economy as a whole. The collapse in confidence led to substantial and sustained outflows of capital, forcing large exchange rate devaluations, a sharp fall in asset prices and leaving entire banking systems virtually insolvent. GDP fell by between 10 and 15 percent. The crises forced substantial changes in the IMF’s instruments for crisis resolution and a major international effort to strengthen financial systems.

Even after a decade, the crises are a subject of debate and controversy. For many, they represented a failure of financial globalization, a dramatic demonstration of the perils of openness to capital flows. A popular perception was that economies with strong records of growth and financial management were forced into positions of vulnerability by externally imposed programs of capital-account liberalization and then were pushed into turmoil by an unstable, even predatory international financial system. Adherents of this view tended to view the policy response to the crisis as harsh or inept or both.

Time has taken some of the edge off these criticisms, but they still affect the political debate in the region today. They reflect anxieties about the balance of risks and benefits of economic and financial integration that still play an important role in shaping economic policy, even with the substantial progress achieved since the crises.

I want to outline some of the principal lessons of that period, both in terms of reducing vulnerability to financial crisis and in terms of strategies for crisis resolution. I offer these with the knowledge that it is hard for anyone who was not a finance minister or a central bank governor in the region at the time to understand what it was like. As one of those involved in shaping the international response, I can say that there was a lot we did not fully appreciate about the dynamics of the crises then, and that justifies humility today in thinking about the lessons for the future.

With those qualifications, here are a few thoughts on four important issues:

- the role of balance sheet problems in creating vulnerability to crisis,
- the challenge in designing an appropriate exchange rate regime and monetary policy framework for emerging market economies,
- the conditions for dealing with progressively greater openness to capital flows, and
- the role of policy reforms and financial assistance in crisis resolution.

**Currency mismatches and balance sheet problems**

In general, the crises were the consequence of fundamental economic problems, often manifested in the buildup of substantial balance sheet problems, with excessive short-term borrowing in foreign currency by the sovereign, the banking system, or both.

In Asia, the accumulation of short-term debt was concentrated in the banking system. Banks borrowed dollars and yen on a large scale and then lent those funds to corporations that earned their revenues in domestic currency. This created a mismatch between the currency denomination of the banks’ liabilities and their assets. And this mismatch created an acute vulnerability to exchange rate risk.

The rapid increase in foreign currency exposure was encouraged by fixed exchange rate regimes, since these created the illusion of protection from exchange rate risk. It was encouraged by tax incentives that favored short-term foreign currency borrowing through offshore banking centers. It was fed by the selective liberalization of capital controls on foreign borrowing, while limitations on equity inflows were left in place. It was exacerbated by classic moral hazard—the result of past government interventions to limit corporate and bank failures. And it was made worse by poor disclosure, which masked the scale of the increase in external liabilities and the deterioration in the level of official reserves.
The scale of the buildup of foreign currency debt was fundamental to the dynamics of the crises. Once confidence weakened, and fixed exchange rate commitments became unsustainable, the economies experienced a sharp reversal in capital flows as both residents and nonresidents sought to limit their exposure to domestic institutions and assets.

This broad flight from domestic assets created conditions similar to a classic bank run. The exchange rate decline magnified concern about potential losses in the corporate sector and banking system, which led to a further shift in assets out of the country, which exacerbated the exchange rate decline. These balance sheet vulnerabilities led to a vicious cycle in which the exchange rate and financial weaknesses reinforced each other.

As economies slipped toward the edge of the cliff, policymakers were left with alarmingly few options to try to contain the crisis and mitigate the damage inflicted on the real economy. Given that real interest rates were already negative, relaxing monetary policy further risked accentuating the exchange rate decline, which would, in turn, have exacerbated the problems of the banking system. But with demand already in free fall, policymakers were equally reluctant to tighten policy and risk further damage to growth.

Fiscal positions in Asia were far weaker than they initially appeared to be because of the enormous contingent liabilities that governments faced as a result of the collapse of the banking systems. This limited the room for countercyclical fiscal policy, although each government moved eventually to put in place modest fiscal stimulus.

This diagnosis of financial vulnerabilities led to a very substantial improvement in the quality of national balance sheets in the region. More on this later.

**Exchange rate regimes and the perils of the middle**

A second, and closely related lesson, relates to the exchange rate regime. In the crisis countries, the exchange rate regime of choice had been a fixed but adjustable peg. This was softer than a currency board—the possibility of adjustment was built into the arrangement, but it was presented as a commitment to a fixed nominal exchange rate for an indefinite period of time.

Although these regimes of limited exchange rate flexibility had been regarded as a means of achieving economic stability, in fact they turned out to be a source of instability. Nominal exchange rates against the dollar had been held fixed for some time, while real effective exchange rates had appreciated significantly. Because of weaknesses in the financial system, the investment booms of the previous decade had not translated into increased productivity.

As investors grew concerned about potential weakness, pressure on the exchange rate further intensified until it became unsustainable. Exchange rate intervention proved ineffective. Once confidence had been shattered, the markets responded with brutal speed and force. Monetary authorities without a record of institutional independence and without a sufficiently clear mandate for price stability did not have the experience or credibility needed to restore confidence quickly.

The crises helped bring about a fundamental reassessment of the merits of fixed but adjustable exchange rate regimes, regimes that try to exist somewhere in the middle between the opposite extremes of irrevocably fixed and purely floating. The new consensus, which you can now see in policy choices across emerging markets, is that the soft middle is fundamentally untenable for an economy that is open to cross-border capital flows. With the limited exceptions of those cases where full monetary union or a currency board is optimal, or where a fixed exchange rate can provide a nominal anchor for a disinflation strategy, the general view now is that flexible exchange rate regimes make more sense for emerging market economies.

Exchange rate flexibility offers the advantage of allowing monetary policy to be directed at sustaining price stability, which in turn offers a better prospect of sustained growth. Changes in fundamental factors such as productivity growth and inevitable shocks to demand and supply require changes in relative prices, both domestically and internationally. A flexible exchange rate makes it easier for relative prices to move rapidly and effectively in the appropriate direction and so generally eases the cost of adjustment.

Regional economic integration has increased rapidly in Asia in recent years, but these economies still seem a long way from the point where economic or political conditions would make a compelling case for some kind of regional monetary integration. (In Europe, of course, the political case for monetary integration largely preceded the economic argument.) For Asian economies, as for most emerging economies today, the principal challenge is to establish conditions that will enable them to prosper in a world where their exchange rates adjust more freely to changing fundamentals.

**Capital-account liberalization**

A third important conclusion from the crises relates to strategies for capital-account liberalization. Although this was not the conventional wisdom at the time, I think the evidence supports the view that the policy mistakes that contributed to the crises lay not in the decision to become more open to capital flows, but in the how those governments chose to become more open.

The supervisory and regulatory regimes over the financial system did not provide a strong enough framework of incentives for risk management and controls over financial intermediaries. But the more consequential mistake was that the crisis economies each in different ways chose to liberalize capital controls selectively. Each had in place other incentives or distortions that led to an excessive reliance on short-term borrowing through the banking system.
These weaknesses left the financial system and the economies as a whole with less capacity to manage the greater pressures and risks that came with openness to capital flows.

The policy consensus that has emerged from this experience has a more cautious view of the benefits of financial integration, a greater awareness of the damage caused by creating incentives that distort the composition of flows and a greater appreciation of the importance of having in place a strong set of institutions, in the financial system in particular. It has also fostered a greater skepticism within governments of their ability to sustain and adjust a set of limited controls on capital flows, once an economy has passed a certain point of relative openness. Money tends to move around these controls with progressive ease, and it becomes more difficult over time to counteract this force with acceptable costs to other objectives. For this basic reason, many emerging market governments that were early proponents of selective controls have moved to eliminate them.

Faced with the challenges of managing policy in an increasingly integrated world economy, the dominant instinct of officials is often to try to shield the economy from volatility. But the crises of the 1990s helped demonstrate why this approach can be both futile and counterproductive. As economies become more open to capital flows, policies designed to insulate an economy from external shocks, whether they be fixed exchange rate regimes or selective capital controls and restrictions on international transactions, rarely offer durable stability, and they bring additional risks. These risks come in the form of additional distortions that might undermine future growth or magnify vulnerability to future financial volatility.

The more promising approach is to invest in the complement of institutions and policies that enable an economy to live more comfortably with openness. Focusing on those measures that will enable an economy to be more flexible and to adapt more quickly to change ultimately will be a more effective policy strategy. It is politically more difficult, but economically more effective than those solutions that seem to offer protection from competition and volatility.

Crisis resolution
A fourth lesson, or series of lessons, comes from our experience in crisis resolution. The strategies adopted to stabilize markets and then to foster recovery varied significantly across the crisis economies. Each involved a somewhat different mix of policy reforms and temporary financial assistance, tailored to the different conditions that prevailed.

Where there was success, the common feature was what Larry Summers called the Powell Doctrine applied to international finance—the overwhelming use of force, with a clear strategy for resolution. The “force” in this sense applied both to the scale of financing made available relative to the need and to the quality of the policy measures.

Very substantial resources were deployed in support of the recovery efforts, and a large share of the resources was made available upfront, in order to try to mitigate the liquidity problem and to stem the loss of confidence. In contrast to the typical IMF program, governments were permitted to use a portion of the IMF-supplied resources to take some pressure off the exchange rate, as foreign investors sought to reduce their exposures to the crisis countries in the initial stages of the crises.

But the provision of large external financial resources was not, by itself, sufficient to achieve stability. The critical feature of every program was a set of policy measures designed to address the causes of the crisis, to stabilize confidence and to put in place conditions for recovery.

In some cases, the initial policy response looked tentative or inadequate. In others, the reform program did not appear to have broad support within the government. Broader political uncertainty associated with a pending election or change in leadership also undermined confidence in the commitment to a credible recovery plan. Where confidence in the recovery plan was weak, the financial resources had little impact on market sentiment and confidence faltered. Even though the resources looked large relative to past financial interventions, they were easily overwhelmed when markets were unimpressed by the policy response.

Ernesto Zedillo explained the policy challenge exceptionally well when he wrote that since markets tend to overreact at the onset of crisis, so policy needs to overreact too.

A classic problem in financial crises is to distinguish between problems of illiquidity and insolvency. This diagnosis is critical to the design of an effective response, but it is very hard to do. We—in this case I mean the IMF, its major creditors and the governments in the region—treated these cases as closer to the illiquidity extreme on the continuum, rather than to the insolvency extreme.

In the Asian crisis countries, unlike in Russia or Argentina, there was no plausible case for arguing that the sovereign governments had accumulated debts they were unable to repay. A forced restructuring of the external debt of a country or a forced suspension of payments on those obligations would have made the crisis in Asia, and more broadly, substantially worse.

These were not conditions of insolvency, but nor were they purely temporary liquidity problems that could have been addressed through the quick infusion of unconditional finance without any change in policies. The crisis economies all tried that strategy in the weeks and in some cases months before going to the IMF for assistance. Those strategies failed not simply because the governments ran out of reserves, but because they had failed to embrace a broader set of policy changes powerful enough to restore confidence in future stability and growth.

It is worth emphasizing that the strategies ultimately adopted in each case were quite unorthodox and were certainly not uniform.
Besides the novel approach adopted in terms of the scale and structure of financing and the degree of international cooperation in support of the programs, the policy packages were also notable in the degree of emphasis placed on, for example, financial-sector reform and improvements to disclosure.

In each case, the reforms proposed were the result of careful analysis of the causes of the individual crises and a pragmatic assessment of what was needed to correct the conditions that had led to problems and to restore confidence. And in all cases, the strategy was continually modified and adjusted as conditions changed and as the principals responsible developed a better feel for what was working and what was not.

**Conclusion**

Recovery in the Asian crisis countries took time, but it was stronger and more rapid than had been typical in other emerging market financial crises. Barely 18 months after the crisis, for example, Korean GDP had returned to pre-crisis levels, and this was true for all the Asian crisis countries by 2003. Growth has been relatively strong and stable since, though at a pace somewhat below the unsustainable rates of the decade prior to the crises.

The countries directly affected by the crises a decade ago are fundamentally stronger. The balance sheet weaknesses have been transformed into strength. Financial-sector reforms have been undertaken on a generally impressive scale. Stronger legal and institutional frameworks have helped create an environment in which enterprise is thriving. Macroeconomic policy has been reasonably prudent, and debt-to-GDP ratios are declining. Exchange rate regimes have become more flexible.

These changes have made these economies far more resilient than they were a decade ago. They are much less likely to face the type of crisis, the acute, self-reinforcing panic produced by the balance sheet problems of that era.

Is there more to be done? Of course, but the challenge now is not so much the challenge of building stronger defenses against crisis, but rather the longer-term challenge of building a greater capacity to adapt to change in this increasingly integrated and rapidly evolving global economy.

Thank you.