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POINT OF VIEW

Asia: A Perspective on the Subprime Crisis

The catchphrases may be different, but there are many similarities between the 1997 Asian financial crisis and today's

Khor Hoe Ee and Kee Rui Xiong

CRISIS anniversaries are usually occasions to draw lessons from the past—and the 10th anniversary of the Asian financial crisis last year was no different. Numerous conferences analyzed events of a decade earlier and studied ways to prevent a similar crisis.

But the conferences had barely ended when a new crisis erupted. The epicenter of the crisis had changed—from Asia to the United States and Europe. And the buzzwords had, too. Securitization, subprime mortgages, and collateralized debt obligations (CDOs) seem radically different from the currency pegs, excessive corporate borrowing, and foreign debt that dominated the Asian financial crisis. But the underlying causes of both episodes are similar. Each was triggered by investor panic in the face of uncertainty over the security and valuation of assets, and each featured a liquidity run and rising insolvency in the banking system.

How can policymakers better identify precrisis warning signals? And how can they pinpoint the recurring problems that, if tackled during tranquil times, could mitigate the risk and cushion the impact of future crises? This article explores the subprime and Asian crises to see what lessons can be learned and discusses the factors behind Asia's resilience, thus far, to the current crisis.

Early warning signals

A common backdrop to both crises was ***abundant liquidity and excessive, imprudent credit expansion.*** Prior to the Asian crisis, capital flows into the region surged (see Chart 1), leading to a sharp rise in bank lending and corporate borrowings. Foreign investors bought high-yielding Asian securities or U.S. dollar–denominated debt instruments assuming that Asian economies would continue to grow rapidly and currency pegs would hold indefinitely. Similarly, the current crisis was preceded by massive flows of capital into the United States to finance its current account deficits. That abundant liquidity was intermediated by financial institutions into consumer credit and mortgages, which were converted into mortgage-backed securities

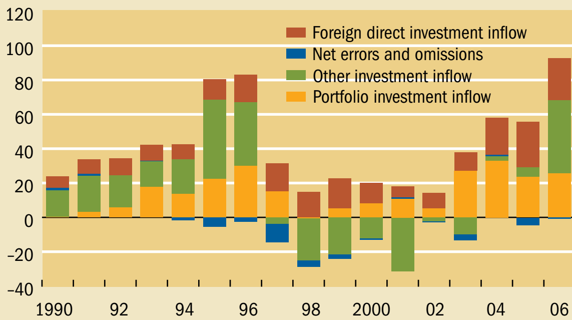
A $2 bill is taped to the New York headquarters building of Bear Stearns after JPMorgan Chase offered to buy the stricken firm for $2 a share.

Chart 1

Surging capital

In the two years before the 1997 Asian financial crisis, capital flows into the area increased dramatically.

(billion dollars)



Sources: CEIC; and IMF, *International Financial Statistics*.

(MBSs) and CDOs. The search for yield fueled demand for these structured products by investors, many of whom based their decisions solely on the strength of the AAA ratings afforded by credit rating agencies.

There was also a search for yield by lenders, and the abundance of liquidity tended to lead to ***lax credit standards***. In the Asian financial crisis, credit imprudence came in the form of connected lending to large corporate entities or to megaprojects and property developments that were of dubious commercial viability. In the subprime crisis, that search led to the proliferation of mortgage loans in the subprime category, the so-called ninja (no income, no job, and no assets) loans.

Another sign of trouble prior to both crises was the ***rapid increases in property asset prices***. U.S. property prices, for instance, rose 50 percent between 2001 and 2006. Indeed, such asset bubbles have been linked in past crises to the availability of easy credit. According to Minsky's well-known financial instability hypothesis (1992), a period of strong growth encourages increased leveraging. Minsky classified borrowers into three types, in declining order of their ability to make interest and principal payments: hedge borrowers, which can pay their obligations from cash flow; speculative borrowers, which can pay only the interest but need to roll over the principal; and Ponzi borrowers, which can pay neither interest nor principal and must borrow, or sell assets, just to meet their interest bill. The growth of speculative and Ponzi borrowers leads first to an asset bubble and then to the widespread realization that the increased lending is unsustainable. The result is a sudden pullback in financing and a crash.

Such financial instability is apparent in both crises. Subprime mortgage growth, representing speculative and Ponzi borrowing, could have trapped the United States in a superficially virtuous but insidiously vicious housing price cycle. While house prices were rising, creditors felt safe lending on appreciating collateral, which in turn fed housing demand and prices. Similarly, lending to corporate entities in Asia was spurred by booming economies and easy credit, with many loans ending up in unprofitable projects, sustained only by further debt infusions. Both of these unsustainable cycles were destined to unravel (see Chart 2).

Asset market bubbles are notoriously hard to pin down while they are happening. It is also difficult to judge the point at which credit growth changes from being good to being excessive. Nevertheless, the two crises seem to suggest that *prolonged* upswings in asset (especially property) prices and *rapid* credit growth should trigger enhanced surveillance efforts, as well as a search for possible market distortions.

Recurring problems

Alongside common symptoms, the subprime crisis and the Asian crisis exhibited common problems, which could be viewed as underlying illnesses.

To begin with, the credit imprudence shown by lenders in both crises reflected the classic ***principal-agent problem***. During the Asian financial crisis, shareholders' interests were ignored by bank managers, who lent indiscriminately to certain companies and projects, either at the behest of governments or because these projects were related to influential shareholders. In the subprime crisis, CDO and MBS investors expected mortgage lenders to maintain credit standards. But with the "originate and distribute" model, lenders had little incentive to worry about credit standards because they did not retain the loans. Instead, mortgage lenders made loans that they immediately sold to banks, which in turn packaged them as securities. Lenders were seeking to maximize the fee income from securitization rather than the interest income from loans. With little or no ownership of the underlying loans, credit standards dropped sharply, leading to higher default rates when the property market turned down.

There were also classic cases of ***moral hazard***, because lenders and borrowers faced little if any risk from their activities. Some of the precrisis Asian banking systems and megaprojects appeared to enjoy de facto bailout guarantees from their governments (Krugman, 1998), encouraging the banks to lend without regard for the commercial viability of the projects. Similarly, many banks and corporate entities borrowed in foreign currency at lower interest rates, on the assumption that the pegged exchange rates would be maintained indefinitely. In the current crisis, investors and banks invested in long-duration, complex structured financial products such as MBSs and CDOs using short-term funds, on the assumption that access to rollover funding would always be available in the highly liquid interbank and money markets because central banks can inject liquidity if necessary.

The recurring problems of agency and moral hazard in all crises may be an indication that they are systemic. Nevertheless, it is the responsibility of policymakers to design systems and policies that minimize such risks and mitigate their impact.

Different policy responses

Although the subprime crisis is unfolding, it has moved into the phase of management and resolution. What is striking is

how different the policy response is now from the one of a decade ago.

In the subprime crisis, major central banks have intervened aggressively to provide liquidity to contain disruptions and contagion in financial markets. At the same time, the U.S. Federal Reserve has cut interest rates substantially to ease monetary conditions, and the U.S. Congress has approved a fiscal stimulus package. In the Asian crisis, monetary and fiscal policies were initially tightened to support exchange rates because of massive capital outflows and a run on foreign reserves, which contributed to a downward spiral in the real economy. Only after exchange rates had stabilized at a lower level did governments adopt more expansionary fiscal policies to support the real economies.

There has also been a major difference in public versus private recapitalization of banks, at least in the initial phase of the crisis resolution. During the Asian crisis, many governments took over nonperforming loans and injected new capital into the banks, while the IMF topped up the depleted foreign reserves of the central banks. Only at a later stage were there substantial injections of private capital in the form of foreign buyouts of local banks. In the current crisis, the main recapitalization of banks has come through direct placements or through capital injections by sovereign wealth funds. Two notable exceptions were Northern Rock, which was nationalized by the U.K. government, and the Bear Stearns rescue, which exposed the U.S. Federal Reserve to potential losses from Bear Stearns' impaired assets. However, if the subprime crisis worsens, governments will likely be forced to take a greater and more direct role in stabilizing the economy and the banking system.

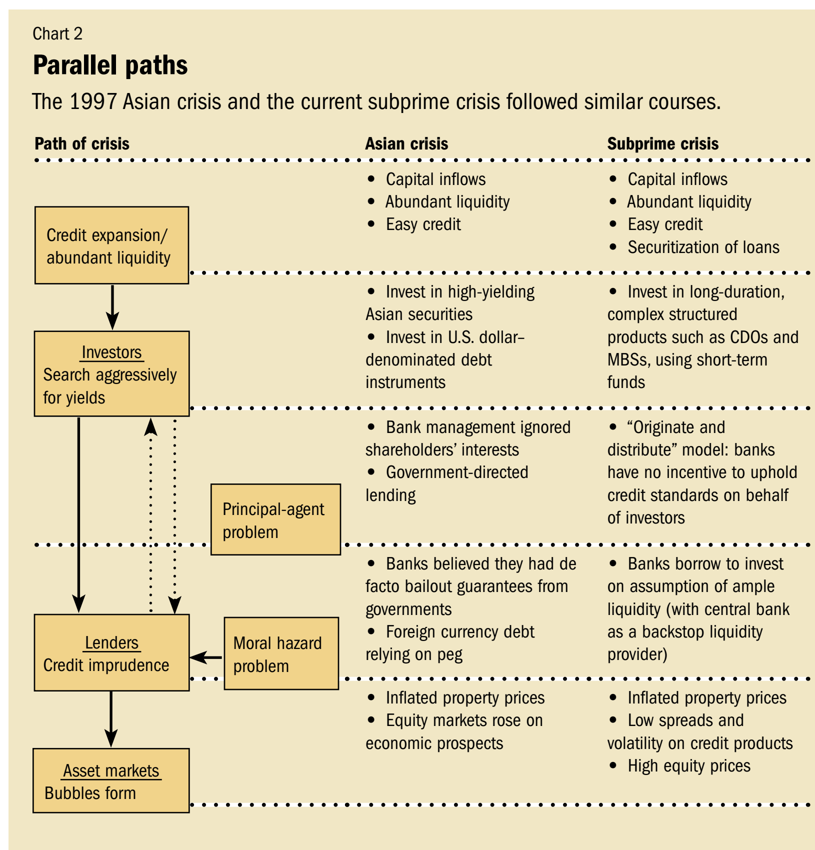


Chart 2

Parallel paths

The 1997 Asian crisis and the current subprime crisis followed similar courses.

Path of crisis	Asian crisis	Subprime crisis
Credit expansion/ abundant liquidity	• Capital inflows • Abundant liquidity • Easy credit	• Capital inflows • Abundant liquidity • Easy credit • Securitization of loans
Investors: Search aggressively for yields	• Invest in high-yielding Asian securities • Invest in U.S. dollar–denominated debt instruments	• Invest in long-duration, complex structured products such as CDOs and MBSs, using short-term funds
Principal-agent problem	• Bank management ignored shareholders' interests • Government-directed lending	• "Originate and distribute" model: banks have no incentive to uphold credit standards on behalf of investors
Lenders: Credit imprudence ← Moral hazard problem	• Banks believed they had de facto bailout guarantees from governments • Foreign currency debt relying on peg	• Banks borrow to invest on assumption of ample liquidity (with central bank as a backstop liquidity provider)
Asset markets: Bubbles form	• Inflated property prices • Equity markets rose on economic prospects	• Inflated property prices • Low spreads and volatility on credit products • High equity prices

Learning from Asia

But there are two key steps in which the industrial economies should emulate Asia in its recovery from its financial crisis. The first is the ***reduction of leverage for the class of borrowers whose problems were painfully exposed by the crisis.*** In the Asian crisis, those borrowers were the corporate entities and banks that were both overleveraged and overreliant on foreign debt. The subprime equivalents are

- the U.S. household sector, in which debt to disposable income has risen from about 80 percent in 1990 to about 140 percent, and in which many borrowers took on loans with low initial interest rates and high reset rates;
- the banks that had engaged in off-balance-sheet investments and are forced to bring those vehicles onto their balance sheets;
- the investment banks, which engaged in highly leveraged broker-dealer transactions on a narrow capital base; and
- the hedge funds and other investment companies that had taken advantage of easy money to borrow aggressively.

Reducing leverage will be more perilous this time because hedge funds and banks are more closely linked. For instance, prime brokerage has become a bigger proportion of investment banking income, while several large hedge funds are owned by banks themselves. Clearly, supervisors and regulators must be more vigilant in detecting and limiting excessive risk taking, especially the rapid and sustained buildup of leverage by nonregulated entities. The registration, licensing, and gathering of relevant information from such entities should be improved.

The second key action worth emulation is ***the correction of macroeconomic imbalances.*** The current economic slowdown and depreciation of the U.S. dollar are likely to lead to a slowdown or a reduction in consumption and housing investment, a rise in the household saving rate, and a narrowing of the current account deficit. This is similar to what happened in many Asian countries, except that it was property and other investment spending that had to be cut sharply.

So far, so good for Asia . . .

To be sure, Asia is not immune to the current crisis. Asian equity markets have sold off across the region, and volatility has increased markedly while credit spreads have widened. Furthermore, growth in the Asian economies is likely to be trimmed by the downturn in the U.S. economy.

Nevertheless, economic growth in Asia has held up well despite the financial market turbulence and weakness in exports. One reason is that ***macroeconomic fundamentals are much healthier*** than they were 10 years ago—as reflected in the improved sovereign credit ratings of the countries. Asian countries have cut back domestic spending, reduced fiscal deficits, and reformed their economies. Spending on megaprojects and property developments is no longer excessive, resulting in more balanced and efficient economies. The development of local-currency financial instruments has helped to reduce the currency mismatches that underlay the Asian financial crisis. Central banks have also improved their management of capital flows, mitigating the risk of exchange rate overvaluation, credit booms, and asset bubbles.

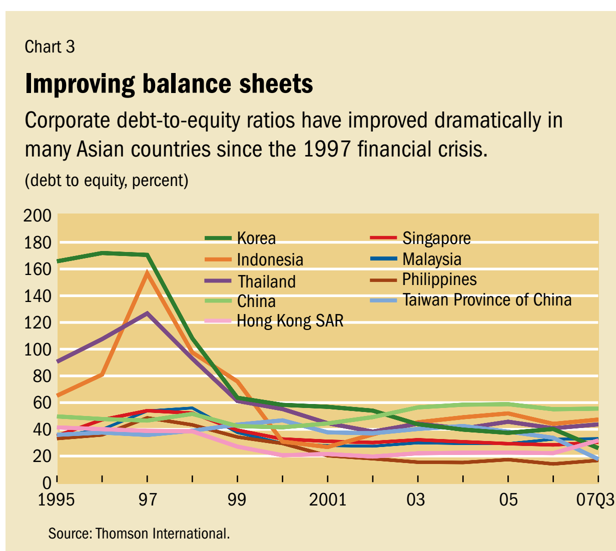
Another reason is that ***corporate balance sheets in Asia have improved*** as debt-to-equity ratios have been reduced sharply and foreign currency borrowing is no longer a large component of the corporate sources of funding in most countries (see Chart 3).

Chart 3

Improving balance sheets

Corporate debt-to-equity ratios have improved dramatically in many Asian countries since the 1997 financial crisis.

(debt to equity, percent)



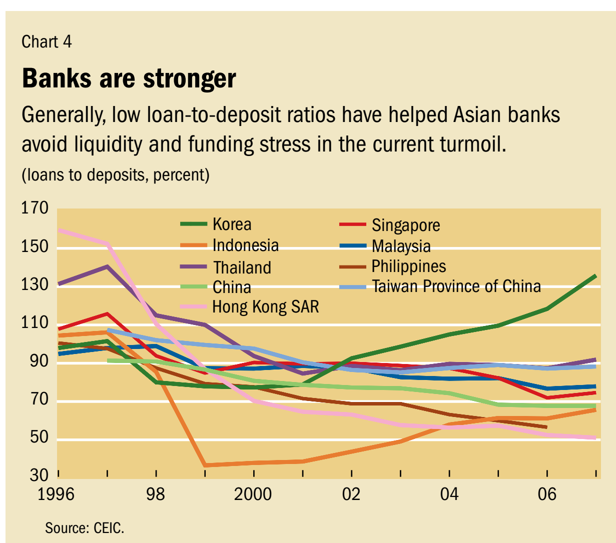
Source: Thomson International.

Chart 4

Banks are stronger

Generally, low loan-to-deposit ratios have helped Asian banks avoid liquidity and funding stress in the current turmoil.

(loans to deposits, percent)



Source: CEIC.

Asia's relative resilience to the subprime crisis has also highlighted the progress it has made in reforming its banking systems. The limited exposures of Asian banks to subprime and CDO assets, coupled with well-capitalized balance sheets, have allowed Asian interbank markets to remain calm while the interbank markets in the United States and Europe have been in chaos. Generally, low loan-to-deposit ratios (see Chart 4), together with little off-balance-sheet financing, have helped banks avoid liquidity and funding stress in the current credit turmoil.

Moreover, most Asian countries have strengthened their external positions: they are running current account surpluses, maintaining large foreign reserves, and diversifying exports. Reflecting the strong external positions, selling pressures on Asian currencies remained muted despite significant portfolio outflows from Asian markets and the unwinding of carry trades that occurred during the subprime crisis. Most Asian currencies have strengthened during 2007 and into 2008, aiding their economies in heading off inflationary pressures, especially from high commodity prices.

A final strength of most Asian economies has been the relatively modest property price appreciation compared with that in the United States and certain European countries, such as the United Kingdom, Ireland, and Spain (see Chart 5). Asian countries, including Singapore, have taken measures to cool property markets in recent years whenever prices threatened to become a bubble. As a result, property price crashes in the wake of slowing economic growth and financial market turmoil have been less of a risk.

. . . but it still faces risks

Even so, Asian policymakers must watch for remaining risks from the subprime crisis that could pose problems for Asia. These include what a Standard & Poor's report called a possible "triple whammy" on banks: more subprime-related losses, an adverse impact on Asian financial markets that affects banks, and an adverse impact on Asian economies that affects banks.

But to date, such impacts seem muted. Asian banks are engaged in traditional bank lending and are not heavily exposed to the more sophisticated types of financial products that have hurt financial sectors in many industrial countries. However, a decline in the real economy as a result of economic declines in the United States and Europe could cause a significant deterioration in the quality of bank loans.

Thus far, Asian economies have coped well with the U.S. economic slowdown and financial turmoil. Most analysts project only a mild slowdown in GDP growth across the region. However, Asian economies are likely to be more adversely affected by a severe downturn in the U.S. economy, which could result in distressed loans and trigger a negative credit cycle.

Over a longer horizon, once confidence returns to capital markets, capital flows into emerging Asia could be a source of vulnerability. Capital inflows could return in even larger volumes than before, especially if Asia is perceived as a "safe haven." Capital inflows can make a positive contribution to the economy and financial markets, but they can be vola-

tile and must be carefully managed to mitigate their adverse impact on the real economies.

Subprime lessons for Asia

Asian economies can learn several lessons from the subprime crisis. First, ***whereas the form of crises may change, their essence stays the same.*** Asia should watch for the common early warning signs: abundant liquidity, rapid credit growth, and sustained asset price inflation. This is of particular importance to emerging Asia, where capital flows have amplified the challenges of managing liquidity and credit growth and volatility in asset markets. Policymakers and regulators should also be mindful of the classic behavioral problems of principal-agent and moral hazard that are sometimes the unwitting by-products of policies or measures that are well intended. Central banks and regulators also need to enhance their macroprudential tool kits to understand and address the recurring problems of liquidity, leverage, and contagion in today's globalized financial system. Although it might be impossible to predict where and when the next crisis will surface, the onus is on policymakers to mitigate the risk.

Second, ***Asia needs to find the right balance between progress and prudence, innovation, and caution.*** An overemphasis on progress over prudence might have been one of the contributing factors to the subprime crisis. In an article in the *Korean Herald* last year on the need for financial cooperation in Asia, economist Barry Eichengreen suggested that the U.S. authorities had reduced the regulatory burden in response to competition from London as a financial center. Wave after competing wave of deregulation is a trap that emerging Asia must avoid.

A case in point was the rapid collapse of Bear Stearns and Northern Rock. The former was at the forefront of financial innovation in securities markets, and the latter was lauded for its innovative funding strategy. Asia should be careful to ensure that any move away from traditional banking practices toward more innovative techniques is accompanied by enhanced management of liquidity risk.

To be sure, Asia should continue to develop its capital markets and encourage the growth of its financial institutions as part of its broader economic and financial development. However, the subprime crisis has shown that financial innovations—whether new products, new structures, or new market players—do not come without risks. As Asian financial markets expand into new terrain, policymakers must put measures in place to deal with the risks posed by financial innovation.

In trying to balance innovation and caution, policymakers might be aided by a few key principles:

• ***Credit standards must be maintained at all times*** but especially in times of abundant liquidity and strong economic growth. Easy credit usually reflects underlying problems of principal-agent and moral hazard and is ultimately a cause of financial instability.

• ***Transparency is critical for financial supervision and market discipline to be effective.*** The subprime crisis has shown that ordinary loans can become a major source of risk and uncertainty when securitized into complex, nontransparent structured financial products, and when held in varying concentrations by any number of potential investors, including banks' off-balance-sheet investment vehicles. Regulators should ensure that comprehensive information on new products and entities is readily available to allow supervisors and market analysts to understand and monitor the incremental risks to the financial system.

• ***Financial linkages must be understood.*** The subprime crisis and credit turmoil illustrate the increasing complexity and connectivity of financial markets and products. Policymakers and regulators should ensure that sufficient resources are devoted to financial surveillance, supervision, and risk management to mitigate the risks engendered by innovations and developments in financial markets.

A third lesson is that ***economic fundamentals are essential.*** Weak economic fundamentals, such as highly leveraged corporate balance sheets and large current account deficits, led to a loss of confidence in 1997. Strong economic fundamentals in 2007–08 have enabled Asia to remain relatively resilient in the current turmoil. This should encourage emerging market economies to maintain strong balance sheets, sustainable current account balances, and enough foreign reserves to act as a buffer against shocks.

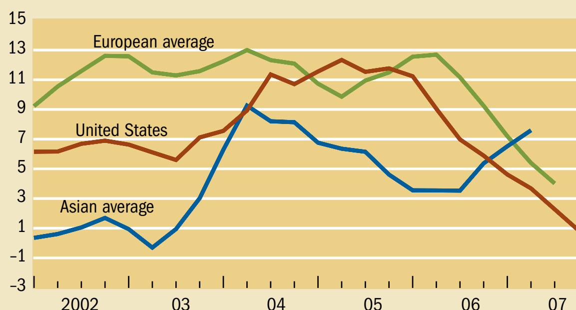
Asia's healthy long-term growth prospects should mean that the region is poised to ride, or even lead, the next economic boom. The challenge is to ensure that its development does not get derailed by financial land mines along the way. The region should exploit its firmer footing to build on the lessons of the 1997 and current crises. ■

Chart 5

No property bubble

Unlike in the United States and many European countries, property price appreciation in Asia has been modest.

(property price indices; year-to-year growth, percent)



Source: CEIC.

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