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### 20 years after the Asian financial crisis : lessons, challenges, and the way forward : conference highlights, 13-14 April 2017

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# 20 YEARS AFTER THE ASIAN FINANCIAL CRISIS LESSONS, CHALLENGES, AND THE WAY FORWARD

CONFERENCE HIGHLIGHTS | 13–14 April 2017





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## Message from the Asian Development Bank

On behalf of the Asian Development Bank, I would like to extend my thanks to the participants and distinguished speakers for taking part in this very important conference, 20 Years after the Asian Financial Crisis: Lessons, Challenges, and the Way Forward. Together, we were able to delve into the lessons learned from past financial crises. But more importantly, we were able to discuss the new and emerging challenges facing our region—and explore how we can work together to address them.

We have seen that 2 decades after the Asian financial crisis (AFC), the region stands strong with a solid economic outlook and healthier financial systems. The crisis triggered a series of structural reforms in macroeconomic management and financial regulatory frameworks across the region, allowing Asian economies and financial systems to grow more resilient. However, as we embrace continued rapid financial liberalization, globalization and financial integration, the lessons of past crises take on greater relevance.

The AFC highlighted the risks of excessive short-term foreign-currency borrowing, resulting in the twin currency and maturity mismatches that triggered the crisis. Despite great strides taken in advancing the region's financial systems and markets—including local currency bond markets—the region continues to rely heavily on US dollar funding for investment, exposing its financial markets and systems to risks of sudden reversals in capital flows. An increasingly interconnected global financial system also helps transmit the risks associated with abrupt changes in dollar funding conditions. Policymakers must remain vigilant.

If past experiences are any guide, systemic risks and financial contagion are beyond the control of national financial regulators. Consequently, securing financial stability in the region requires policy dialogues and coordination mechanisms that work through regional cooperation. The region has embraced many regional financial cooperation initiatives that strengthen macroeconomic surveillance, provide financial safety nets, and intensify financial system resilience—such as the ASEAN+3 Chiang Mai Initiative Multilateralization (CMIM) and the Asian Bond Markets Initiative. More efforts are needed to make the CMIM more operationally effective. And local currency bond markets need to further deepen and broaden the investor base to boost secondary trading and increase market liquidity. The region also needs to accelerate financial reforms to strengthen regulatory and institutional frameworks, and market infrastructure to safeguard macroeconomic and financial stability.

Once again, I would like to thank all participants for the fruitful discussions and for sharing many new ideas and insights. We have had a very productive 2 days. These discussions will form the basis for ADB's continued support in helping build more resilient financial systems in the region.



A handwritten signature in black ink, appearing to read 'Bambang Susantono'.

Bambang Susantono  
Vice-President for Knowledge Management and Sustainable Development  
Asian Development Bank



## Message from the Asian Development Bank Institute



On behalf of the Asian Development Bank Institute, I would like to express my gratitude to all the participants, speakers and guests of this conference, *20 Years after the Asian Financial Crisis: Lessons, Challenges and the Way Forward*.

The Asian Financial Crisis 20 years ago revealed vulnerabilities many economies in the region were exposed to. Mismatches both in maturity—short-term funding and long-term finance—and currency—dollar-denominated debt and investments in local currencies—were among the root causes of the crisis. Housing and real estate bubbles accompanied by rapid growth in the money supply likewise exacerbated the financial vulnerability of economies across the region. Given the build-up in financial vulnerabilities in recent years and the detrimental impact these could have on the real economy, the lessons from past crises remain relevant today.

It was a great pleasure to organize this conference together with the Asian Development Bank to gather an impressive array of policy makers and practitioners as well as leading experts in the fields to discuss remaining challenges to the region's financial systems and prospects for the region's economic growth. It is our hope that the discussions that stemmed from this conference will extend the theoretical and empirical literature on financial crises and contribute to policy discussions about how to enhance resilience in financial systems.

The importance of identifying obstacles to financial stability across the region cannot be overstated. In an increasingly interconnected world, shocks to the financial system in one economy can spillover to the rest of the world and have nonnegligible effects on the real economy. A high degree of financial integration can moreover constrain the effectiveness of monetary policy. Given this, further understanding of the determinants of the financial cycles is necessary to identify early warning signals of financial distress and to design appropriate policy responses.

I trust that the conference had been stimulating and enjoyable. A sincere thank you once again to all the participants for contributing to the success of this event.

A handwritten signature in black ink that reads "Naoyuki Yoshino". The signature is written in a cursive, flowing style.

Naoyuki Yoshino  
Dean  
Asian Development Bank Institute

DAY 1

## Opening Session



In his keynote address, Hyun-Song Shin discussed the central role dollar exchange rates play in setting financial conditions and real economic variables. He noted the challenge this poses for controlling monetary and financial conditions and ensuring economic stability in the region.

The global financial system has undergone dramatic changes in the 2 decades since the Asian financial crisis. The continued prominence of the US dollar as the currency underpinning the global banking system is an important constant. But policy makers also need to consider the financial channels of exchange rates. In contrast to the conventional exchange rate movements on an economy's trade channel—a depreciation of the domestic currency against the US dollar boosts competitiveness and net exports, creates expansionary financial conditions, and thus eventually increases economic growth—financial channels work in the opposite direction. In this context, bilateral US dollar exchange rates are particularly important, as they significantly impact financial conditions in emerging market economies, such as in sovereign bond markets.

On this theme, Shin initially highlighted the contrasting effects exchange rates can have on the real economy. Traditionally, the global economy is depicted as a collection of islands and the exchange rate serves to balance trade among these islands. Under this view, currency depreciation would have an expansionary effect on the economy, boosting export competitiveness and thus raising output.

An alternative view posits that the global economy is better understood as a dense financial network of interconnected nodes. By means of a financial channel of exchange rate changes, an appreciation of the domestic currency relative to the US dollar will result in looser financial conditions, which then may result in capital inflows. This takes place because an appreciation of the local currency improves balance sheet capacity, due to a decrease in the value of (dollar-denominated) liabilities relative to the asset side. This will lead to a stronger balance sheet among borrowers as well as higher credit-worthiness and, ultimately, an influx of credit. Exchange rates therefore have an impact on risk-taking and on financial conditions, more generally, and can affect the economy both through the trade and the financial channels.

### Opening Session

#### WELCOME REMARKS

**Naoyuki Yoshino**

Dean

Asian Development Bank Institute

#### OPENING REMARKS

**Bambang Susantono**

Vice President for Knowledge Management  
and Sustainable Development

Asian Development Bank

#### KEYNOTE PRESENTATION

**Hyun-Song Shin**

Economic Adviser and Head of Research  
Bank for International Settlements

US dollar exchange rates can affect the economy both through the trade and the financial channels.



US dollar prominence in the global financial system is further underscored by the rise in cross-border US-dollar denominated assets and liabilities in recent years.

US dollar prominence in the global financial system is further underscored by the rise in cross-border US-dollar denominated assets and liabilities in recent years, simultaneous with a strong dollar and a widening of the cross-currency basis swap spread.<sup>1</sup> The latter is due to the currency-hedging role played by advanced economy commercial banks, whereby commercial banks absorb the dollar exposures of US dollar denominated assets held by long-term institutional investors. When local currencies depreciate sharply relative to the US dollar, as took place during the global financial crisis in 2008 and the European Crisis in 2011–12, the cross-currency basis widens considerably, stressing the banking system and constraining the ability of banks to accommodate growing hedging needs.

The development of local currency bond markets in Asia was largely in response to the lessons learned from the Asian financial crisis, namely, the need for the financial system to address currency mismatches and maturity mismatches. Shin noted the ADB's prominent role in developing these local currency bond markets, especially through the Asian Bond Market Initiative launched in 2003. Local currency bond markets can potentially address such issues, as bonds are issued in local currencies (avoiding currency mismatches) and are almost invariably issued in the long-term (bypassing maturity mismatches). But the ability of local currency bond markets to resolve such issues is constrained by the challenges posed by the exchange rate on monetary and financial stability in emerging market economies. Empirical models (panel and vector-autoregressive) assessing the impact of a dollar-appreciation shock on 24 emerging market economies found that the strengthening of the dollar was associated with a contraction in cross-border dollar lending and simultaneous contraction in capital expenditures. In this way, currency fluctuations can be shown to have a real economic impact.

Analysis of the emerging market local currency and USD returns further affirms the central role of the bilateral US dollar exchange rate on local currency bond market conditions. While an appreciation of the local currency relative to the US dollar is associated with looser conditions in emerging market economies, a depreciation of the local currency against

<sup>1</sup> Difference between the interbank interest rate in US dollars and the implied interest rate in US dollars inherent in currency swaps.

the US dollar tightens financial conditions. When the emerging market currency appreciates against the dollar, bond spreads fall, and financial conditions become looser, generating an overall expansionary effect on the economy.

Shin noted that this mechanism is most pronounced when regressing against the bilateral US dollar exchange rate, indicating the existence of a financial channel—it is the prevalence of US-dollar-denominated liabilities globally that is influencing risk-taking and driving this effect; regressions against the trade-weighted exchange rate exhibit the opposite effect, supporting the traditional view of the trade channel. Appreciations in the trade-weighted exchange rate lead to tighter bond market conditions and have a contractionary effect, lending credence to the conventional trade channel model. Shin notes that the strong impact of the bilateral US dollar exchange rate on emerging sovereign bond market conditions works through risk spreads and that this effect is enhanced after filtering out the forward rate, supporting the notion of a risk-taking channel at work. The evidence on credit default swaps is similar, with an inverse relationship emerging between the strength of the US dollar and local financial conditions.

The ability of the exchange rate to influence local currency yields and affect broader financial conditions poses an important challenge for the conduct of monetary policy for open economies. Whereas conventional literature posits that the impact of the exchange rate is limited to inflationary effects triggered by exchange rate pass-through, the exchange rate in fact exhibits a considerable financial impact, affecting risk premiums and financial conditions more generally.

These two opposing channels have contributed to ambivalence about how monetary policy should respond to exchange rate changes. If operating under the mechanism of an exchange rate pass-through effect to inflation, then policy makers should respond to currency depreciation by raising rates to counter inflationary pressures and defend the currency. However, given the effects of the financial channel, a local currency depreciation would tighten financial conditions and hurt the domestic economy.

Finally, Shin highlighted the challenges local currency bond markets pose for financial stability. In the 2 decades since the Asian financial crisis, local currency bond markets have emerged as an important asset class, with about 20,000 bond funds globally managing assets totaling \$8 trillion at the end of 2016.

Whereas some argue that long-term local currency bond markets will not undermine financial stability, Shin notes that the reactions of these fund asset managers to local financial conditions could amplify risks. Evidence suggests that purchases and sales of fund shares reflect more than the inflow and outflow of funds by investors, but also encompass active decisions by



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In the 2 decades since the Asian financial crisis, local currency bond markets have emerged as an important asset class, with about 20,000 bond funds globally managing assets totaling \$8 trillion at the end of 2016.

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investment managers. This discretionary element to the management of mutual fund portfolios can amplify effects whereby asset managers buy and sell (in particular) more than is necessary to meet redemption pressures. Empirical analysis finds that for every \$1 worth of investor-driven sales, an additional 0.13 cents of sales arises out of discretionary spending. In this way, the procyclicality of bond portfolio flows is amplified by procyclical cash hoarding by fund managers, undermining financial stability.

The discussion that followed raised several points. A question was raised about the source of shocks underlying the appreciation of the US dollar, namely that some of these shocks could help the real economy and indicate improving market fundamentals (for example, the acceleration of the US economy). Shin responded that due to the prominence of the US dollar in the global financial system it will nevertheless have ripple effects through the financial channel, independent of the nature of the shock. The speaker noted the global financial markets following the US elections, where improvements in equity markets and a stronger dollar were accompanied by a widening cross-currency-basis swap with the dollar, indicating that balance sheet capacity was quite high in those economies.

Furthermore, it was noted that despite the region's efforts in the development of local currency bond markets, the markets remain smaller, less liquid, less developed, and less international than foreign currency bond markets. In that regard, Shin pointed to the rapid rise in dollar-denominated corporate bonds issued by Asian companies. The speaker highlighted that while corporate bond markets are less liquid and are at an earlier stage of development than sovereign bond markets, they could still have a significant impact on the financial system. If corporations channeled the funds into financing real assets or other financial instruments, corporate bonds could be a way of injecting additional lending capacity into the economy through the shadow banking system.

The rest of the discussion centered on how to determine an optimum threshold of foreign reserve holdings by central banks and on how they should undertake inflation-targeting policies in light of the presented findings. Further clarification was also sought on the trade and financial channels following exchange rate changes, on the impact of corporate sector investment decisions on the real economy, and on whether it was possible to examine the effects of speed and volatility changes in exchange rates. To the first two points, Shin stressed that it was difficult to set an ideal threshold for foreign currency reserves or a one-size-fits-all inflation-targeting strategy as these are very much context- and country-specific. Shin further questioned the usefulness of setting an optimal foreign reserve level, as large international reserves are not a panacea and may not necessarily insulate an economy from exchange rate shocks. He also argued that exchange rate changes and capital inflows are essentially two sides of the same coin in their expansionary or contractionary effects: when the dollar depreciates, one can observe an expansion in bank-based dollar flows. To the extent that risk-taking is working through the balance sheet, cross-border capital flows are just a reflection of the liability side of the balance sheet.

He further stressed the role of the trade channel in compounding the centrality of the dollar in the global financial system. As to whether it is possible to examine the speed and volatility of exchange rate fluctuations and gauge their impact, Shin noted that this was an area not fully explored, but that the expectation of heightened volatility following faster currency movements was plausible.

In conclusion, Shin affirmed the importance of corporate sector investment decisions on the real economy, but cautioned that the impact of corporate activity on real investment is a lot weaker than initially thought, impacting financial activity more than real activity.



## SESSION 1

# Lessons Learned from Crises: Asia



Moderator:

**Naoyuki Yoshino**

Dean

Asian Development Bank Institute

Policy Panel 1: Lessons from Crises: Asia

**In-Chang Song**

Deputy Minister

Ministry of Finance, Republic of Korea

**Muhamad Chatib Basri**

University of Indonesia

**Muhammad bin Ibrahim**

Governor

Bank Negara Malaysia

**Veerathai Santiprabhob**

Governor

Bank of Thailand

**Nestor Espenilla**

Governor

Bangko Sentral ng Pilipinas

Policy Panel 1 focused on the Asian financial crisis and the lessons learned from it. Participants discussed financial stability and resilience in Asia and associated policy implications. Panelists agreed that while certain lessons of the Asian financial crisis are applicable to all economies in the region, country specific conditions should be accounted for when drawing policy lessons.

The Republic of Korea, for instance, showed that while a capital account crisis is usually associated with disruptive macroeconomic adjustments, the run-up to the 1997 crisis had a few vulnerabilities. Still, the economy was facing twin maturity and currency mismatches, resulting in large exposure to credit risk. Foreign investors were not rolling over short-term foreign-currency loans, putting domestic banks under massive pressure because a large share of their assets were in longer-term credit in domestic currency. At the same time, an overvalued won—due to a misalignment of exchange rates in Asia caused by the variety of fixed-exchange rates regimes—meant that the country’s current-account imbalance failed to adjust under its own floating exchange rate. Financial sectors in countries with insufficient foreign reserve buffers were left vulnerable to speculative attacks.

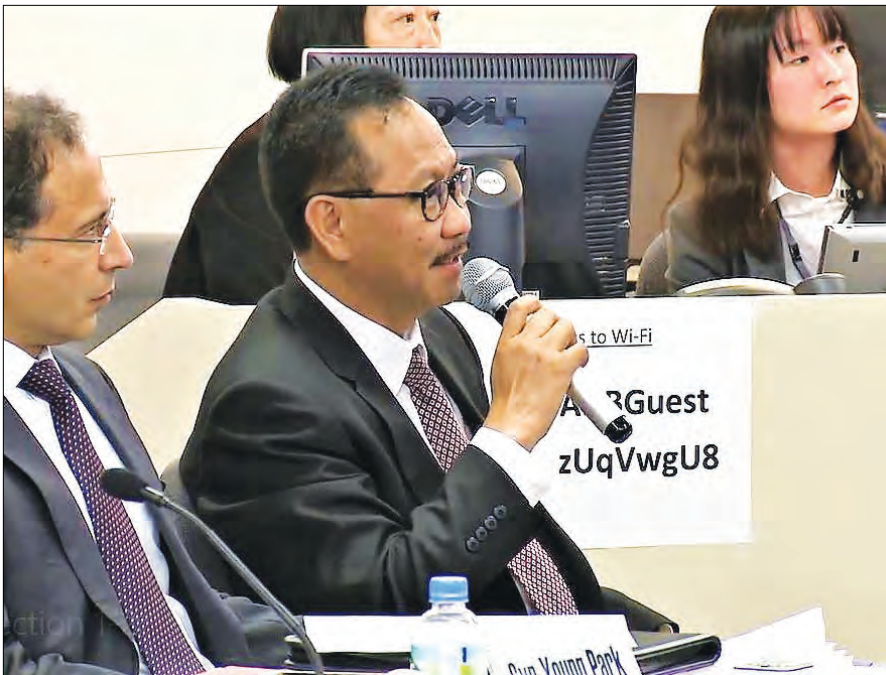
In reference to Indonesia, the panel stressed the insufficiency of one single policy instrument to address all the risks threatening the economy. In fact, it was the right interplay of policies during the global financial crisis that helped mitigate the effects of the crisis on the Indonesian economy. It was pointed out that tightening monetary and fiscal policy in 1998 in response to the Asian financial crisis contrasted sharply with the expansionary monetary and fiscal measures implemented in the wake of the global financial crisis. Considering countercyclical policies during good times, even though politically hard to implement, could also turn out to be very valuable. The introduction of a legally binding maximum deficit criteria helped impose more discipline on policy makers.

In addition, a healthy banking system and the policy responses toward the banking sector during periods of distress need to be carefully considered. In Indonesia, during the Asian financial crisis, 16 banks were closed, whereas

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... country specific conditions should be accounted for when drawing policy lessons.

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during the global financial crisis the policy response was rather targeted toward bailouts and the introduction of deposit insurance schemes to help the sector withstand turbulent times.

Discussing Malaysia, the panel highlighted the relationship between increasing financial integration and heightened financial vulnerability. Structural reforms undertaken in the wake of the Asian financial crisis simultaneously paved the way for greater resilience to withstand external shocks such as the global financial crisis and a build-up of financial imbalances and vulnerabilities that accompanied the debt-driven accumulation of wealth of many economies in the region.

Greater financial integration has, moreover, widened the exposure of economies to external shocks and financial volatilities. Increased financial interconnectedness has amplified the risk of financial contagion across borders. The large presence of foreign investors in domestic bond markets was highlighted as one example of a potential source of financial vulnerability. In Malaysia, for example, nonresident holdings of domestic government bonds peaked at the end of 2016, but has moderated since the US election.

In response to these developments, the panel emphasized the need for targeted, bold, but pragmatic measures to respond to financial imbalances. Since 2010, for instance, Malaysia has implemented prudential measures to contain risks in the property sector. Macroprudential and other regulatory policies must be timely in order to contain risks, reduce short-term vulnerabilities, and preserve financial stability. Such measures need to be tailored to country-specific needs given Asia's economies. Small open

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Increased financial interconnectedness has amplified the risk of financial contagion across borders.

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economies, for example, are especially vulnerable to fluctuating foreign demand and volatile capital flows.

The panel called for preemptive policies and an openness to less conventional approaches. As technology evolves, policy lifespans shorten, and integration widens, policy makers must consider the unintended consequences of policy responses more carefully and undertake sequential reforms strategically. Effective governance is crucial.

For the Thai economy, also hit hard by the crisis, currency and maturity mismatches were also prevalent. Before the Asian financial crisis, high growth, elevated interest rates, and big capital inflows characterized the economy. But the capital inflows were not always channeled to productive sectors. A large amount of hot money went to the booming property sector, boosting the ratio of nonperforming loans (47% at the peak of the Asian financial crisis).

The severity of the crisis in Thailand reflected the lack of institutional capacity in general, which resulted in a distorted incentive structure, the panel concluded. It also reflected investor's huge appetite for short-term gain, ignoring the long-term risks. The absence of incentives to slow the overheated economy exacerbated the effects of the crisis. Indeed, neither the Bank of Thailand, which was not sufficiently independent by then, nor political think tanks could play a counteracting role.

Countercyclical policies were unpopular for political economy reasons. In addition, policy makers lacked the information needed to be effective. In particular, granular microdata, which would have been necessary to estimate financial linkages, were not readily available. The same applied to good and timely data on central banks' international reserve positions, nonperforming loans, and even export data.



Since the crisis, these challenges have been addressed and regulatory and supervisory frameworks have been strengthened, financial safety nets and a resolution structure put in place, and flexible exchange rates adopted. This has made the Thai economy more resilient to external shocks, and the financial sector has been revitalized and developed. Corporate bonds, for example, though they do not yet represent a big market, have developed well and are liquid.

Meanwhile, participants noted that the Philippines was exposed to large capital inflows prior to the Asian financial crisis, similar to other affected economies. A significant share was related to portfolio inflows, which tend to be more volatile than foreign direct investment. But the Philippines had adopted a floating exchange rate, although one that was managed to provide stability to the market. A significant build up in domestic credit, mostly related to the real estate sector, was financed increasingly through short-term borrowings, while risk management capacities were limited.

After the outbreak of the crisis, the Bangko Sentral ng Pilipinas tried to defend the currency, but had only limited foreign reserves. It soon needed to let the peso devalue significantly, but still tightened monetary conditions to restore investor confidence. This led to a surge in nonperforming loans, which took almost a decade to reach precrisis levels. Simultaneously, macroeconomic conditions worsened as unemployment surged and government revenues deteriorated.

In terms of policy responses to the Asian financial crisis, the Philippines government undertook broad-based policies, including a set of macroeconomic measures, such as adopting an inflation targeting monetary policy and the continuation of a floating exchange rate regime. In addition, international reserves were built up and a debt liability management system was established on the fiscal side.

These macroeconomic reforms were accompanied by a national financial reform agenda aimed at sound corporate governance and mitigating the build-up of systemic risk stemming from the financial sector. Higher capital buffers in the system were established through banking supervisory reforms. Market competition was enhanced through looser entry barriers for foreign banks, and financial stability was supported by enhanced financial surveillance.

One recently introduced tool is real estate stress tests to gauge banks' resiliency to shocks in the property market. Finally, capital markets were developed through better financial market infrastructure. All these measures are complemented by increased supervisory capacity through more capacity building for all policy makers.

Generally in the region, of the important lessons learned from the crisis, the panel often pointed to the challenges associated with external imbalances. A flexible exchange rate regime has proven to help cushion the effects of



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A flexible exchange rate regime has proven to help cushion the effects of external shocks and external imbalances, though its effects are also limited to some extent.

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external shocks and external imbalances, though its effects are also limited to some extent. In addition, an economy needs to accumulate adequate amounts of foreign reserves. Furthermore, it was highlighted that one needs to carefully assess the nature of external capital inflows with which a current account deficit is financed. If these funds are channeled to the productive sector, such as foreign direct investment, a current account deficit is not a major concern per se.

To avoid the problems of currency mismatches, it would be preferable that these foreign direct investment activities took place in export-oriented sectors. But if a large current account deficit is primarily financed through portfolio investment, which is more volatile, policy makers need to remain vigilant. It was mentioned that a lot of progress has been made to address problems associated with currency mismatches. For instance, these days, many governments issue most bonds in local currency. Nonetheless, foreigners still hold significant proportions of these local currency bonds, which needs to be carefully monitored, highlighting ongoing vulnerability to external shocks.

The panel also pointed out the possible sluggish growth prospects of the world economy and greater capital flow volatility. The latter is facilitated by loose monetary conditions in advanced economies, including nonstandard monetary policy measures such as quantitative easing. How to best manage these volatile capital flows and revitalize real economies is a big challenge for policy makers.

Lastly, the panel identified challenges arising from a changing financial environment and conditions. First, policy makers also need to adapt the effects of rapid technological development on the financial sector.

Authorities should update regulatory frameworks to cope with these recent developments. Second, financial literacy needs to increase to help households deal with rising household debt, a relatively new phenomenon for the region.

During the open floor discussion, both the importance and difficulty of smooth coordination among financial authorities was highlighted. Panelists agreed that such coordination is a lot easier during crises than normal times and noted that regular meetings among key agencies can help facilitate coordination. Outreach, such as through social media, could also play a role in raising public awareness of the views of one agency (such as a central bank) and thus indirectly influence decisions in other agencies.

Participants also discussed measures to bring down elevated nonperforming loan ratios. In the Thai case, for instance, the bankruptcy act and regulations were tightened significantly to reduce so-called strategic cases of nonperforming loans, in which investors were actually able to pay but decided to withhold payment strategically. The country also tightened the provisioning requirements of banks and facilitated the establishment of asset management companies.

To gain credibility during reforms and thus increase effectiveness, it was pointed out that it is important for authorities to implement consistent reform measures and clearly communicate these to the markets. Inconsistently executed reforms instead will only increase uncertainty and therefore undermine the gains of the reforms. This is one major lesson in comparing the Indonesian crisis in 1998 with 2008, with credibility a lot higher during the global financial crisis.

Finally, the panel noted growing concern that rising household debt—which can result in a low-interest-rate environment and a booming housing sector—cannot be contained by a single measure alone. Instead, it is best to tackle such debt through a combination of policies, including the implementation of macroprudential measures to contain the build-up of systemic risk.

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... smooth coordination among financial authorities is a lot easier during crises than normal times.

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## SESSION 2

# Lessons Learned from Crises: Global Experiences



Moderator:

**Hyun-Song Shin**

Economic Adviser and Head of Research  
Bank for International Settlements

1: Lessons from Europe

**Gregory Claeys**

Bruegel

Discussant:

**Junkyu Lee**

Economic Research and Regional  
Cooperation Department  
Asian Development Bank

2: Lessons from Latin America

**Alicia Garcia-Herrero**

Natixis

Discussant:

**Ichiro Oishi**

Representative in Asia  
Inter-American Development Bank

This session highlighted the striking crisis experiences of the European Union (EU) and Latin America to draw policy lessons for emerging Asia. In particular, participants discussed patterns in macroeconomic activity before, during, and after the crises and offered plausible explanations for what caused them, deliberated on the adverse short- and medium-term macroeconomic and financial implications, and looked closely at the responses taken by policy makers.

Both presentations looked at policy tools and options that can shed light on how to prevent crises. The first presentation, looked at the sovereign debt crisis that hit the EU at the end of 2009. Before the crisis, critical imbalances in the European banking sector surfaced. First, on the asset side of banks' balance sheets, housing lending and purchase of subprime mortgages from the United States (US) increased rapidly. On the liabilities side, increased financing through extremely short-term wholesale markets instead of insured stable deposits dominated.

These patterns left financial institutions heavily dependent on the Eurozone interbank market, money markets, and repurchase agreement markets, which in turn raised levels of roll-over liquidity risks in the European banking sector. Moreover, they significantly bloated banks' balance sheets in terms of leverage. This proved to be the factor that catalyzed the sovereign crisis thanks to weak financial supervision of eurozone banks in the form of nonuniform supervisory practices and tendency to favor national champions at the expense of overall financial stability.

At the height of the global financial crisis in 2007, such imbalances in the EU banking sector intensified and a rapid unwinding materialized. The ultimate result was a sovereign-bank doom loop—a vicious circle of liquidity issues becoming solvency difficulties in the eurozone banking system.

While crises are diverse, they show recognizable early signals that could indicate the brewing of a potential prolonged recession. For the European sovereign debt crisis, various explanations have emerged, including fiscal indiscipline (Greece), sovereign bank loops (Ireland, Italy, and Spain), and



multiple equilibriums in the form of a self-fulfilling bad equilibrium in the absence of a lender of last resort on sovereign bond markets, among others.

Policy responses to the sovereign debt crisis came either as crisis management tools or prevention tools. The former included (i) “Whatever it takes” and outright monetary transactions by the European Central Bank, (ii) the European Stability Mechanism designed to lend to countries with limited access to markets, (iii) an expanded suite of monetary policy instruments, and (iv) improved banking supervision and resolution intended to address the capital shortfalls of banks, force them to deal with nonperforming loan (NPL) resolution, and close “zombie” banks.

On the latter set of policy responses, the following have been implemented:

- (i) Prevention tools for fiscal imbalances, such as reinforced fiscal surveillance (Fiscal Compact, 2-pack, 6-pack), coordination (European Semester), independent national fiscal councils, renewed fiscal rules with structural deficit targets and medium-term budgetary objectives.
- (ii) Prevention tools for financial imbalances such as banking union (Single Supervisory Mechanism, macroprudential tools and oversight (creation of the European Systemic Risk Board), Capital Markets Union for risk sharing in private sectors across countries.
- (iii) Prevention tools for economic imbalances, such as macroimbalances procedures looking at 29 indicators.

Key policy insights for Asia involve the understanding of the progress made in Europe towards a “complete” banking union, which is still incomplete:

- (i) uniform regulation (“single rulebook”), (ii) centralized bank supervision (Single Supervisory Mechanism), (iii) centralized bank resolution (complex Single Resolution Mechanism in place, not yet tested), (vi) common deposit

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Policy responses to the sovereign debt crisis can be made either as crisis management or as prevention.

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guarantees (proposal made by European Commission, negotiations stalled), and (v) common fiscal backstop for bank resolution and deposit guarantee (no fiscal backstop for the small Single Resolution Fund).

The second presentation examined the case of Latin America, which arguably was the most crisis-prone region in the world in the late 1990s, but much less so since the global financial crisis. Financial crises in the region can be divided into three types: (i) balance of payment crises in the 1980s and later (Mexico); (ii) banking crises, especially in the 1990s (Argentina); and (iii) twin crises in extreme cases (Mexico in 1994 and Argentina in 2001).

Under the balance of payments crises in the 1980s and 1990s, the following signals were apparent.

On the external side, current account deficits surfaced due to excess demand for foreign goods and foreign capital (cross-border loans in the 1980s and cross-border portfolios in the 1990s). Supply bottlenecks pushed prices up, which eventually led to exchange rate appreciation for Latin American economies with pegged exchange rate regimes. Current account deficits were then aggravated by heavy dependence of the emerging economies on commodities. Fiscal policy was too lax, meanwhile, creating additional excess demand. Moreover, low public and private savings implied a limited cushion for sudden massive capital outflows. These macroeconomic imbalances eventually triggered the balance of payments crises following the US Federal Reserve's monetary policy hikes in the 1980s and 1990s.

The banking crises that hit Mexico in 1994 and Venezuela in 1993 were mainly credit-driven, thanks to massive capital inflows, but they were also brought about by microeconomic factors. These include state ownership in Mexico—which was behind the easy financing of fiscal deficits—control by private conglomerates and related party financing in Venezuela's crisis, and financial liberalization with poor regulation.

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## Latin America's experience with crises offers food for thought for Asian policy makers.

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Some crises had become twin crises: deficits both fiscal and external. The incapacity of Latin American banks to withstand sudden change in financial conditions, meanwhile, eventually resulted in banking crises. Since banks were key players in intermediating capital inflows, pegged exchange rate regimes created discontinuities in financial conditions. The situation was aggravated by dollarization and large capital account openness.

Latin America's experience with crises offers food for thought for Asian policy makers. The crises were moderated in terms of actual output lost thanks to improved fiscal and monetary policy coordination, exchange rate flexibility, and foreign exchange reserves.

A significant part of the success is also attributed to external developments, such as favorable financial conditions arising from the Federal Reserve's massively lax policies and the People's Republic of China's massive push for growth. Structural changes have been more limited than in Asia, with still

very high commodity dependence and very low productivity. Latin America's resilience to tighter financial conditions globally remains to be seen.

While the situation is better in Asia, it is crucial to note that potentially important risks remain.

The discussants focused on the analysis of policy tools and options that can be of use for Asian policy makers to combat and perhaps prevent the adverse macrofinancial implications of crises. As Asia becomes more and more integrated through financial links, greater financial integration can improve the allocation of savings and investment across regions, allowing more international risk sharing and promotion of financial sector competitiveness.

But it may also heighten countries' vulnerability to contagion, cause reversals of capital flows, stronger output comovements across countries, and make growth more volatile. The gaps in countries' financial and institutional infrastructure magnify the risks of deeper financial integration.

Evidence of the gap in regional financial cooperation mechanisms is in the macrofinancial impact of NPLs. ADB interim research finds that a rising NPL ratio in Asia decreases gross domestic product (GDP) growth, credit supply, and policy rates, and increases unemployment.<sup>2</sup>

Each Asian economy has different resolution incentives and mechanisms of failed banks. The International Monetary Fund's (IMF) approach to banking crisis management has changed over the past 20 years from closing down and merging banks, as in the Asian financial crisis, to restructuring banks through asset management companies and deposit insurance schemes. Orderly resolutions minimize the impact on financial stability of bank failures by ensuring the continuity of vital economic functions and mitigating taxpayer exposure to losses.

Possible Asian regional approaches include the following:

- (i) Prevention: Association of Southeast Asian Nations (ASEAN)/ASEAN+3, Executives' Meeting of East Asia Pacific Central Banks, Financial Stability Board/BIS/Basel Committee groups regional groups, ASEAN+3 Macroeconomic Research Office (AMRO), ADB/peer reviews.
- (ii) The roles of the private market, including distressed asset market development, medium and longer-term tasks for most emerging Asian economies.
- (iii) Harmonization and convergence on definitions, standards, knowledge, and experience sharing and how to effectively resolve banks in Asia.
- (iv) Cooperation on asset management companies and deposit insurance/ resolution groups.



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Greater financial integration can improve the allocation of savings and investment across regions, allowing more international risk sharing and promotion of financial sector competitiveness.

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<sup>2</sup> Junkyu Lee. 2016. "Financial Crises, Asian Banks and NPLs with Macro-Financial Linkages." Presentation at the Financial Stability Seminar on Managing NPLs in Asia and Europe, Shanghai, 2016.



## SESSION 3

# Financial Linkages and Transmission of Risks



Moderator:

**Fariborz Moshirian**, Director  
Institute of Global Finance  
University of New South Wales

1: Contagion through Exposures to  
Foreign Banks during the Global  
Financial Crisis

**Kwanho Shin**

Korea University

Discussant:

**Peter Rosenkranz**

Economic Research and Regional  
Cooperation Department  
Asian Development Bank

2: Macroprudential Policy and  
Capital Flow Management  
Frameworks

**Atish Ghosh**

Assistant Director and Chief  
Systemic Issues Division  
International Monetary Fund

Discussant

**Hoe Ee Khor**

Chief Economist  
ASEAN+3 Macroeconomic Research Office

This session focused on the impact of financial interconnectedness on capital outflows and policy options and management frameworks that financial authorities could use to respond to volatile capital flows.

The first paper of the session investigated the extent to which emerging economies were suffering contagion effects originating in advanced economies during the global financial crisis. By using bilateral bank claims data, emerging market economies' direct and indirect exposure to crisis-affected advanced economies were measured and regressed against capital outflows. Regression results showed that the more emerging economies are exposed directly or indirectly to crisis countries during the global financial crisis, the higher the rate of capital outflows they suffer. Direct exposure of the banking sector in the emerging economies are particularly significant in the regression.

The study emphasized three points. First, the liability side of emerging economies: those banks in the emerging market economies affected the most through contagion, were borrowing from troubled banks. Shocks in advanced countries are transmitted to emerging economies as the credit crunch experienced by troubled banks, in turn, triggers a bank run on banks and other entities in emerging economies.

Second, the study highlights an important channel of vulnerability for emerging market economies: the withdrawal of short-term foreign credit while banks lend longer term domestically.

Finally, the study highlighted the relevance of considering foreign lending exposure while designing prudential policies. To improve the analysis, more countries and control variables will be added, with preliminary results showing that the addition of sovereign credit rating, market capitalization, and Chin-Ito Index of capital account liberalization yielded almost the same regression results. Other vulnerability measures, such as exchange rate depreciation, will also be tested as dependent variables.

Emerging market economies were suffering contagion effects originating in advanced economies during the GFC.



During the discussion, one suggestion was to increase the study's sample size to allow comparison with other crisis periods, such as the Asian financial crisis. Aside from adding more crisis periods, the speaker added that using bilateral observations for each economy could increase the sample size.

Another participant suggested adding squared terms of the exposure measures to capture possible nonlinear effects and determine if there are thresholds on the exposure in the types of exposures being analyzed. To check the robustness of the regression results, it was also suggested to add more control variables—such as capital market development indicators, institutional quality, and trade and financial exposure and integration—and to interact these with measures of exposure.

The policy implications of the study were also raised during the open-floor discussion. The speaker responded by saying that one implication of the study is that diversity of liabilities is desirable if emerging market economies' exposure is concentrated in the crisis countries. Global monitoring and sharing of information is necessary.

The second presentation started with the observation that cross-border capital flows to emerging markets have always been episodic, and have become even more volatile since the global financial crisis. Emerging markets are also three to five times more likely to experience a crisis following a capital flow surge than in normal times. During 1980–2013, 335 capital flow surges were identified in emerging markets. The share of surge observations increased from 10% in the 1980s to over 30% in the 2000s.

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Capital flows to emerging markets have become more volatile since the global financial crisis.

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These surges are also synchronized globally, suggesting that common push factors are at play, such as US interest rates, global stock market volatility, and global commodity prices. However, even in times of global surges, not all emerging market economies are affected, which implies that pull factors are also relevant (such as GDP growth, reserve coverage, financing needs, institutional quality, and competitive exchange rates).

Capital inflows have positive as well as negative consequences. In terms of macroeconomic (flow) imbalances, capital inflows can raise output growth, but may lead to overheating (inflation), currency appreciation, and excessive credit growth. In terms of financial (balance sheet) vulnerabilities, portfolio and other liability flows are particularly associated with increasing leverage of the banking system and foreign exchange exposure on domestic balance sheets. Among the policy options authorities could use during the capital inflow phase to avoid problems associated with capital flow reversals are structural measures (capital controls and macroprudential measures), macroeconomic policies, and cyclically varying macroprudential measures and capital controls.

In terms of policy effectiveness, empirical evidence shows that sterilizing foreign exchange intervention is more effective in stemming appreciation than depreciation. Intervention can also offset the effect of capital flows on bank credit growth. In addition, evidence shows that macroprudential measures (especially loan-to-value and debt-to-income caps) are effective in stemming credit growth. Capital control on inflows is shown to have a significant impact on currency appreciation, but there is less evidence of its impact on bank credit growth. In managing capital flows, emerging market economies can use a combination of structural (such as bans on foreign exchange-denominated mortgages) and cyclical measures (macroeconomic, macroprudential, and capital controls). Generally, macroeconomic tools are used for flow imbalances while prudential or capital controls are for balance sheet vulnerabilities.

The speaker also touched on international policy cooperation, which is needed (i) to avoid measures that result in deliberate undervaluation or currency manipulation, (ii) because recipient countries imposing controls might deflect unwanted flows to other recipient countries, and (iii) source countries might cooperate in management of capital flows as they have much at stake in maintaining an open system.

The discussant provided examples of how selected emerging market economies in ASEAN responded differently to address capital outflows following the Asian financial crisis. Singapore, a financial hub, used macroprudential policies to prevent asset bubbles. Malaysia, which has deep capital markets, used foreign exchange intervention, capital controls, and macroprudential policies. As a commodity-based economy, Indonesia allowed its exchange rate to fluctuate much more than before. It had capital and current account deficits, hence, capital inflows were used mostly for financing and filling up its buffer. In the Philippines, where financial markets

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## Emerging market economies in ASEAN responded differently to address capital outflows following the Asian financial crisis.

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are not very deep and the cost of sterilization is high, capital inflows were used to build up reserves. Macroprudential policies were not used as extensively as in the rest of the region.

Several issues were raised during the open-floor discussion. On the nature of capital flows and distinguishing between the sources and destination of money, the speaker responded that the implications of whether the inflows are coming from foreigners or residents (as repatriations of money invested abroad) are not very different. However, distinguishing the destination of capital flows—whether they are going to foreign direct investment or the banking system as deposits, would have different implications.

On the dominant role of the banking sector in capital flow management, the importance of the impact of capital controls and the capital management framework on the types of liabilities of the banking sector was discussed. The target of such policies and measures should not be at the gross level (distinguishing between foreign direct investment and portfolio investment), but on the type and structure of bank liabilities.

On assessing the exchange rate and foreign exchange intervention, the speaker noted that the IMF has been refining its tools for exchange rate assessments since it began 20 years ago. The methodology has been modernized to account for capital flows in external balance assessments and external stability reports. It has been an inherently difficult problem from the multilateral perspective to determine a fair exchange rate and an optimal level of intervention. From a country's perspective, it is difficult to say how much it should allow its currency to appreciate or depreciate.

# Keynote Presentation: The Asian Financial Crisis— Looking Back, Looking Forward



Keynote Presentation: The Asian Financial Crisis—Looking Back, Looking Forward

**Ayhan Kose**

Director  
Development Prospects Group  
World Bank

The regional factor is gaining greater importance in the Asian business cycle.

The morning session of the conference's second day began with a keynote presentation on how the Asian financial crisis compared relative to major crises the global economy has encountered since 1960. The speaker placed the Asian financial crisis in the context of a broader set of crises the global economy has faced, discussed the global and regional implications, and zoomed in on the emergence of the Asian business cycle, one particular aspect related to the crisis. The main findings included the following:

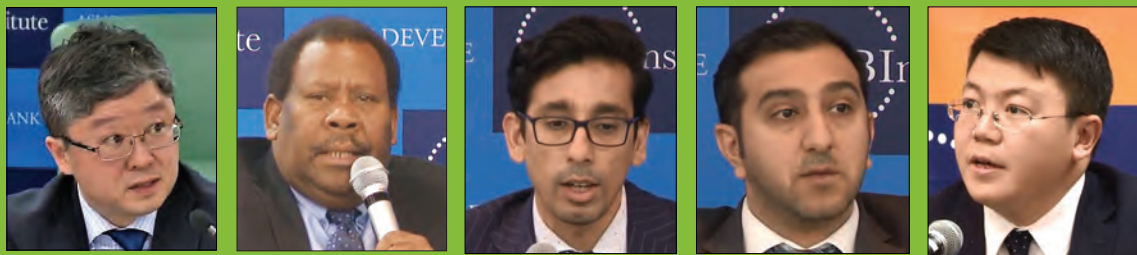
- The Asian financial crisis is considered among the major global stress episodes from 1960 to the present, albeit milder than other significant episodes that the global economy has experienced. In particular, it is one of the two global slowdowns and one of the six global stress episodes during the period.
- Emerging Asia experienced the deepest recession, weakest postcrisis recovery, and highest synchronization during the Asian financial crisis episode.
- Results from a dynamic factor model show that the synchronization of emerging Asian economies is driven by an underlying Asian business cycle. This regional factor has become more pronounced due to higher regional integration arising from stronger supply chains and financial market linkages.
- The regional factor is gaining greater importance in the Asian business cycle, thereby highlighting the risks facing emerging Asia and the policies needed to mitigate them. These risks include the sudden reassessment of global policy risk, sharp slowdown in the BRICS economies and the decline in the growth differential with the advanced economies.<sup>3</sup> The region should stand ready to employ all policy levers (fiscal, monetary, structural, and global) and decisively implement credible policy plans.

<sup>3</sup> BRICS includes Brazil, the Russian Federation, India, the People's Republic of China, and South Africa.

One of the main issues that arose during the open forum was whether the more pronounced Asian business cycle arising from higher integration in the region was brought about by more robust financial market linkages, apart from stronger supply chains. This may not be the case as most inflows to Asia come from outside the region. Moreover, several participants shared the view that financial integration in the region is progressing much slower than trade integration. In addition, it was suggested that running the model without the Asian financial crisis episode in the sample period could plausibly show that the global factor is still strong in the post-Asian financial crisis period. Hence, Asia is more susceptible to global than regional shocks.

On whether Asian financial markets are more globally than regionally integrated, the presenter responded that even if Asia is not financially integrated, the growth patterns of economies in the region tend to move together because of their collective exposure to global shocks. With regard to the exclusion of the Asian financial crisis episode from the sample period, it was noted that altering the sample period may not change the results. This is because the panel dimension outweighs the time dimension in the model.

## Policy Panel 2: Challenges for Small Economies



### Policy Panel 2: Challenges for Small Economies

Moderator:

**Yasuyuki Sawada**  
Chief Economist and Director General  
Asian Development Bank

Panel:

**Ellison LW Pidik**  
Assistant Governor  
Bank of Papua New Guinea

**Ali Choudhary**  
Director  
Research Department  
State Bank of Pakistan

**Emil Guliyev**  
Deputy Head  
Budget Policy and Macroeconomic  
Analysis Department  
Ministry of Finance  
Republic of Azerbaijan

**Gan-Ochir Doojav**  
Director  
Research and Statistics Department  
Bank of Mongolia

A policy panel followed the presentation, focusing on the challenges confronting small Asian economies and measures for promoting financial stability and economic growth now under way.

Following on from the main messages of the keynote presentation, the panel moderator indicated that the increasing importance of regional factors in driving growth dynamics in Asia brings to the fore the challenges small Asian economies face.

Representatives from the central banks of Azerbaijan, Mongolia, Pakistan, and Papua New Guinea each shared the unique features, present challenges, and policy lessons and directions of their respective economies. Except for Pakistan, all the small economies on the policy panel are resource-rich (minerals in Papua New Guinea and Mongolia and oil in Azerbaijan). A distinguishing feature of Pakistan's economy is its stable banking sector which, although large, has not faced a crisis.



The challenges the resource-rich economies face are related to the sudden declines in commodity prices, which significantly reduce their export proceeds. Papua New Guinea also faces a mismatch of fund inflows (due to lower export proceeds) and outflows (due to accelerated repayment of its loan with the United States). In Pakistan, where external debt is dollar-denominated, rising interest rates following US monetary policy normalization also carry significant risks. Moreover, the State Bank of Pakistan is gearing up for possible appreciation of the local currency after a potential surge in foreign direct investment that may result from the One Belt One Road project involving the People's Republic of China and other countries.

From crisis periods, Asian small open economies have learned their lessons, including the need for country-specific policies to address imbalances (no one-size-fits-all prescriptions), the need to build up external buffers (such as reserves) during boom times, and maintaining fiscal discipline.

Policy in the small economies is headed toward the maintenance of price and financial stability as well as promotion of debt sustainability.

One of the salient points raised during the open forum was the susceptibility of small Asian economies to external shocks and uncertainty emanating from advanced economies. In this vein, the representatives were questioned about measures taken to diversify their respective economies to mitigate the impact of external shocks. Azerbaijan, Mongolia, and Papua New Guinea are developing and promoting their tourism sectors and Pakistan is tapping the international bond market and entering bilateral swap arrangements to build external buffers.

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Asian small open economies learned their lessons, including the need for country-specific policies to address imbalances (no one-size-fits-all prescriptions), the need to build up external buffers (such as reserves) during boom times, and maintaining fiscal discipline.

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## SESSION 4

# Capital Market Development and Integration



Moderator:

**Ayhan Kose**, Director  
Development Prospects Group  
World Bank

1: Local Currency Bond Market  
Development and Issues

**Noritaka Akamatsu**  
Economic Research and Regional  
Cooperation Department (ERCD)  
Asian Development Bank (ADB)

Discussant:

**Masahiro Kawai**  
University of Tokyo

2: Implications of ASEAN+3  
Financial Integration

**Cyn-Young Park**  
ERCD, ADB

Discussant:

**Noritaka Akamatsu**  
ERCD, ADB

The fourth session discussed local currency bond market development in the region as well as the progress and challenges surrounding Asian financial integration.

The first presentation reviewed the state of regional integration, noting that Asian economic and financial integration is progressing well relative to Africa and Latin America, but continues to lag behind Europe. This is particularly so in institutional and social integration, money and finance, and infrastructure connectivity. However, Association of Southeast Nation (ASEAN) integration is more advanced than Asian integration, driven in part by trade and investment, as well as regional value chains; it is more advanced than European countries in this respect.

There are numerous regional initiatives designed to enhance and safeguard financial stability, to develop the financial sector, ensure well-functioning financial institutions, and to encourage regional financial and economic integration. The presenter noted that among the rationales behind increased



banking and cross-border integration initiatives is the need to facilitate more productive allocation of the high regional savings rate. Financial crises catalyze cooperation initiatives further.

While taking stock of the progress of regional financial integration, the speaker highlighted that intraregional investment has increased, but not drastically. Most financial flows into and from Asia are driven from outside the region, with the United States and Europe dominating. The large composition of US and Europe-based debt and equity portfolios of Asian investors was said to reflect both a desire for safe assets as well as the limited variety of available investment products in the region. Foreign direct investment was noted to be primarily intraregional, manufacturing-based, and driven by a strengthening and deepening regional value chain.

Overall, the speaker noted that Asian financial integration has yet to fully serve the primary goals of enhanced cooperation, namely the more effective use of regional savings for regional investment.

The speaker stressed that the structural patterns of capital flows into the region heighten the fragility of Asian financial systems. In particular, the concentration of portfolios and other investments outside the region, the bank-dominated character of regional financial structures, and the lack of market deepening and liquidity in local currency bond markets were said to underlie increased financial vulnerability to external shocks. Financial disturbances originating from outside the region were said to comprise more than half of the volatility in local equity returns, both before and after the global financial crisis of 2008.

Overall, the Asian financial system has grown more resilient, boasting a good net international investment position and decreased susceptibility to short-term external debt. The heightened financial vulnerability of the region to foreign shocks is therefore tempered to a certain extent—the volatility in the aftermath of the global financial crisis, for instance, did not exceed that of the 1997 Asian financial crisis.

The speaker concluded by highlighting improvements in market efficiency, the broadening of the investor base, the deepening of secondary markets, and further integration of regional markets as important policy options to enhance financial resilience.

The discussion that followed stressed the significance of furthering banking integration. Noting that banking is among the most important subsectors of finance and reiterating that Asian integration in financial and monetary sectors is lagging other regions, the discussion raised three

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The speaker concluded by highlighting improvements in market efficiency, the broadening of the investor base, the deepening of secondary markets, and further integration of regional markets as important policy options to enhance financial resilience.

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Banking institutions in the region are relatively small and scaling up could enhance both efficiency and competitiveness.

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factors underscoring deeper coordination in banking. First, this would pave the way for more efficient allocation of the high level of savings in the region. Second, the region, ASEAN in particular, could benefit from operating at a larger scale. Banking institutions in the region are relatively small and scaling up could enhance both efficiency and competitiveness.

Last, given the context of greater cross-border flows among people, a more regional presence of banking institutions could make finance more accessible. The discussant moreover highlighted the need to further examine weaknesses in corporate finance in Asia and in other regional financial infrastructure, particularly Asian pension systems. The contradiction between high gross domestic savings in the region and low long-term savings was noted. The discussant concluded noting that bank loans and government bonds often act as substitutes (countries with a stronger banking sector often have little room for growth of corporate bond markets), and that it is not always meaningful to compare equity market capitalization with that of bond markets or banks (equity markets can continue to grow without generating any new finance).

The second presentation delved into the challenges and achievements which characterize the local currency bond markets in Asia. The significance of local currency markets was stressed in the aftermath of the 1997 Asian financial crisis, as the lack of such structures was cited as among the contributing factors to the double mismatch problems which plagued the region following the crisis.

The presenter noted that great strides have been taken in the development of regional local currency bond markets in the wake of the Asian financial crisis. Capitalization in the ASEAN 6+2 exceeded \$10 trillion by the end of 2016, a growth of 18 fold over precrisis levels.

Most countries in the region have also put in place sound financial infrastructure in line with the level of development of their markets.

Additionally, the growth of corporate bond markets has accelerated, allowing for the alleviation of credit shortages following bank contractions and reducing the danger of double mismatches. The Republic of Korea and Malaysia were cited as countries successful in developing well-balanced and well-diversified markets.

The challenges facing the region were detailed. Among these was uneven development across the ASEAN+3, the need to further augment the region's financial sector, and the need to mobilize investments for infrastructure. As priorities, the speaker emphasized the low pension (5%) and insurance (10%) levels relative to gross domestic product, in stark opposition to 60% and 40% of GDP among OECD countries.



Thailand and Indonesia were cited as illustrations of successful turnaround by governments most affected by the Asian financial crisis. In response to the crisis, they made concerted effort to strengthen public debt management, enhance the primary market, systematize issuance, and lay the groundwork for borrowing operations. More broadly, the Asian financial crisis necessitated the development of government bond markets in the region to curb losses among finance companies and to spur recapitalization of banks.

The need for progress in this area was emphasized for Cambodia, the Lao People's Democratic Republic, and Myanmar, which have yet to develop functioning bond markets. The need for capital market development and for diversification of funding sources in these countries is underpinned by their recent rise to lower-middle-income status—the presenter contended that this was a critical juncture at which countries typically develop local currency bond markets.

The presenter concluded by citing infrastructure gaps, housing development, urbanization, and access to finance by small and medium-size enterprises as financial challenges that bond markets could help solve.

The discussant reiterated the importance of developing local currency Asian bond markets to avoid double mismatches (currency and maturity) and strengthen financial markets, and provide viable investment alternatives for firms in emerging economies, households, and institutional investors seeking asset diversification.

It was noted that structural issues and weaknesses in local currency bond markets, market liquidity, and cross-border investments persist. A country-specific approach to developing local currency bond markets was advocated given that investor profiles varied across economies; countries moreover differ in degree of bond market deepening.

On the general question of whether greater financial integration might expose economies to external shocks, the discussant argued that the benefits of integration outweighed the potential risks. The opening of local currency bond markets to foreign investors could increase liquidity and allow better allocation of regional savings. Local and regional efforts to maintain financial stability, through macroprudential policies, capital flow management measures, and international safety nets, were emphasized.



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While the importance of developing local currency Asian bond markets to avoid double mismatches was reiterated, the persistence of structural issues and weaknesses in local currency bond markets, market liquidity, and cross-border investments was noted and a country-specific approach to developing local currency bond markets was advocated given varying investor profiles and degree of bond market deepening.

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## The region must provide financial products to meet the long-term maturity demand of investors and develop secondary and auxiliary markets.

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The discussion that followed raised the fundamental question of whether financial integration has an optimal level and whether the European experience should be used as a guide. Clarification was also sought on converting short-term investors to long-term investors, on the need to develop foreign exchange markets, and on how to advance financial integration without compromising financial stability.

In response to this, the first speaker stressed the importance of attracting a more diversified investor base and more generally addressing the mismatches between the supply and demand of investors. The vitality of this was underscored by the idea that a broader base of investors differing in product and maturity preferences could promote the resilience of financial systems.

To this end, the region must provide financial products to meet the long-term maturity demand of investors and develop secondary and auxiliary markets (that is, derivatives markets, foreign exchange swaps, and forwards and futures markets). The latter goal is essential to increasing liquidity, deepening the local currency bond markets, and addressing the risks associated with foreign currency mismatches.

The second speaker cited the excessive restrictions preventing offshore investors from participating in onshore derivatives markets and domestic institutions from participating in offshore nondeliverable forward markets as a barrier to attracting more long-term investments. A higher volume of foreign capital could be expected to enter the region if more effective hedging mechanisms and instruments are available. In addition, contractual savings, particularly insurance, would need to play a bigger role, especially considering emerging demographic challenges.

The nonbank financial sector was credited with significant progress since the Asian financial crisis and for providing liquidity during times of crisis. Further clarification was given on the relationship between banks and corporate bond markets. Complementarities and contradictions coexist, as corporate bond markets cannot function without the services banks provide, but as some substitution does take place in the core lending business.

Finally, it was noted that the motivations underpinning the Asian Bond Market Initiative have shifted from a crisis-driven to more developmental in nature, in recognition of the role that bonds or nonbanking instruments can play in responding to the financing challenges. The speaker concluded by reiterating the importance of bank governance as an overlooked but crucial policy.

The session ended with the observation that the optimal level of financial integration is very much country-specific and dependent on characteristics such as the depth and breadth of financial markets, the soundness of the banking sector, and the size of foreign currency reserves relative to external liabilities.

## SESSION 5

# Financial Innovation and Inclusion



The fifth session examined the constraints behind and the issues surrounding financial inclusion. The first presentation explored the role of digitization and financial technology (fintech) in bridging the gaps in trade financing. The second presentation assessed the nature of the relationship between the goals of financial stability and financial inclusion.

The first presentation delved into the reasons for underlying constraints to trade finance and the potential remedies to these. The central question posed was whether digitization enhanced inclusion in trade. The speaker noted that in the aftermath of the global financial crisis of 2008, a heightened regulatory environment has further impeded the access of certain markets and segments to trade finance.

The most prominent drivers of gaps in trade finance supplied by banks and financial institutions are regulatory costs and the redirection of business. The requirements laid out by the Basel III and anti-money-laundering laws have increased the costs and complexity of bank compliance, further constraining access to trade finance. Profit considerations have likewise disadvantaged already underserved client groups as banks exit unprofitable markets to limit their exposure to risk. Further insight into the drivers of trade finance gaps is limited, however, by difficulties in data collection.

A segment significantly disadvantaged by these developments is small and medium-sized enterprises (SMEs). These firms face dual layers of exclusion: lack of access to both credit and trade credit. This has translated into lower participation in trade: only 10% of SMEs are exporters compared to 40% of large firms with access to outside markets.

A central question posed by the presenter was whether digitization enhanced trade inclusion. The data points to the negative: rejection rates for trade financing do not decline with the level of digitization, and the benefits of digitization have yet to trickle down to the client level.

Moderator:  
**Masahiro Kawai**  
University of Tokyo

1: Digitalization of Trade:  
Implications for Inclusion  
**Alisa Di Caprio**  
Asian Development Bank Institute

Discussant:  
**Ross Buckley**  
University of New South Wales

2: Financial Inclusion and Financial  
Stability in Asia: Trade-Off or  
Complement?  
**Peter J. Morgan**  
Asian Development Bank Institute

Discussant:  
**Fariborz Moshirian**  
University of New South Wales

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A central question was whether digitization enhanced trade inclusion: the data points to the negative as rejection rates for trade financing do not decline with the level of digitization and the benefits of digitization have yet to trickle down to the client level.

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Furthermore, the benefits of fintech are limited by low awareness among SMEs of the options available. Over two-thirds of firms have not heard of debt-based securities, peer-to-peer lending, or crowd-funding. The data suggests that low utilization rates of fintech are a function of this low awareness rather than a lack of capabilities—uptake among those familiar with fintech is high.

The discussions highlighted three main points. First, constraints to trade finance are partly due to the changing nature of the banking sector from people- to profit-centric. Second, that part of the promise of fintech arises

because it is outside the traditional banking sector. Third, the higher uptake of fintech by female-led firms could be due to the more innovative and less traditional character of these relative to male-led firms.

The second presentation examined whether financial inclusion and stability are competing or complementary, premised on the fact that both have emerged as significant policy targets in developing and advanced economies and are encapsulated by the Group of 20 goals. Financial inclusion is a particularly important goal in Asia and Pacific, where access to bank deposits and loans is low, and access among SMEs and start-ups to finance inadequate. Aging populations and the need for long-term funding in support of infrastructure underscore the importance of financial inclusion.

The traditional view is that inclusion and stability come largely at the expense of one another. In this manner, widening access to finance could pave the way for greater volatility through lower lending standards, lower asset quality, overly rapid loan growth, and greater risk of financial crises. The presenter, noted, however, that an emerging strand in the literature suggests room for synergy between the two goals. Broadening access to finance could contribute to financial stability through asset diversification, higher savings, and consumption smoothing.

Previous work done on the topic finds evidence to support both positive and negative relationships between stability and inclusion. Research by the International Monetary Fund, for instance, found that a one percentage point increase in the ratio of mortgage credit to gross domestic product during 2004–2007 was associated with a 0.15 percentage point increase in nonperforming loans during 2007–2009.

The overall effect of the change in the mortgage loan ratio on nonperforming loans for the period, however, was negative and insignificant. The findings

of Khan likewise give credence to both views.<sup>4</sup> Larger and more diverse bank assets can enhance resilience and risk diversification, and reduce dependence on short-term funding; lending at higher volumes could meanwhile reduce asset quality, with growth in mortgage loans precipitating a potential housing price bubble.

The research presented builds on this literature by examining the link between the share of mortgage lending and two measures of bank financial stability: the Z-score (a measure of the probability of bank failure) and the nonperforming loan (NPL) ratio. Utilizing a panel dataset comprised of banks in 65 economies, the authors find that there is a nonlinear relationship between mortgage shares and financial stability measures. Higher mortgage ratios initially enhance financial stability, but after a certain point, inclusion leads to greater volatility.

The authors moreover find that during noncrisis periods, increasing the share of mortgage lending (up to about half to two-thirds of the total) enhances financial stability by lowering the probability of bank failure and decreasing the NPL ratio; this effect reverses at higher compositions of loan shares.

The study also highlights that Asia and the Pacific fares better than average in financial stability, but is more vulnerable during crises, and that macroprudential policies and regulatory quality have a generally positive effect on bank financial stability (although the evidence on macroprudential measures is mixed). The presenter concluded by highlighting (i) the need for effective macroeconomic policies to manage housing sector risk, and (ii) financial literacy programs.

Points raised during the open forum included the need to expand the indicators of financial inclusion beyond mortgage lending and how this might change the results of the impact on financial stability; the benefit of exploring secured finance and less tangible or moveable assets as collateral was also raised. The first speaker noted that while trade credit is theoretically easier to finance, considerable barriers exist in the form of a restrictive regulatory environment and the lack of internal capability on the part of banks to issue trade finance instruments. It was noted that 40% of banks surveyed lacked the knowledge or capacity to provide trade finance products.



The study presents that there is a non-linear relationship between financial inclusion (mortgage shares) and financial stability measures (the Z-score and NPL ratio). It also highlights that Asia is more vulnerable during crises, and that macroprudential policies and regulatory quality have a generally positive effect on banks' financial stability.

<sup>4</sup> H. R. Khan. 2011. Financial Inclusion and Financial Stability: Are the Two Sides of the Same Coin. Address by the Deputy Governor of the Reserve Bank of India, at BANCON, Chennai, 4 November.





Further areas of research on trade-offs between financial inclusion and financial stability include looking at country-specific circumstances, disentangling the effects of large versus small banks, assessing the impact of secured versus nonsecured loans, and differentiating legal frameworks across countries.

The potency of mortgage loans as an appropriate instrument of financial inclusion was argued because it best explored any potential trade-off between stability and inclusion and as earlier research suggested that mortgage lending behaves in a similar manner as other instruments of inclusion.

## SESSION 6

# Challenges and the Way Forward: Policy Implications and Policy Options for Financial Stability and Resilience



Professor Ross Buckley, University of New South Wales, explored the commonalities among 20 years of crises, including the Asian financial crisis, global financial crisis, and European crisis. The commonalities included the following:

- Origination in banking systems and real estate markets.
- Excessive lending and borrowing (high subprime loans).
- Regulatory responses which tended to be reactive, not proactive.
- Inadequacy or absence of crisis management tools and resolution mechanisms.
- A supervisory disconnect between microprudential regulation and credit risk assessment and macroprudential regulation and systemic risks.
- No understanding of the systemic linkages between countries before crisis struck.

Policy discussions on the lessons and suggestions followed.

The International Monetary Fund (IMF) panelist suggested considering the role of the financial sector, including supporting the real economy and welfare and looking at the purpose of the extraordinary growth in financialization in national and international economies. He also emphasized that economies need to build buffers in good times, but that it is not always clear when is a good time or a bad time.

The AMRO panelist explained that the region strengthened fundamentals, but major challenges remain in Asia, such as the rise of the People's Republic

Moderator:

**Yasuyuki Sawada**

Chief Economist and Director General  
Asian Development Bank

Keynote Presentation:

Twenty Years of International  
Financial Crises: What Have We  
Learned and What Still Needs to be  
Done?

**Ross Buckley**

University of New South Wales

Policy Panel 3:

Challenges and the Way Forward

**Atish Ghosh**

Assistant Director and Chief  
Systemic Issues Division  
International Monetary Fund

**Hoe Ee Khor**

Chief Economist  
ASEAN+3 Macroeconomic Research Office

**Muhamad Chatib Basri**

University of Indonesia

**Nestor Espenilla**

Governor  
Bangko Sentral ng Pilipinas

**Muhammad bin Ibrahim**

Governor  
Bank Negara Malaysia

**Naoyuki Yoshino**

Dean  
Asian Development Bank Institute

**In-Chang Song**

Deputy Minister  
Ministry of Finance  
Republic of Korea

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As to international cooperation, there is a need to refine the CMIM and ASEAN+3 Macroeconomic Research Office. To deal with vulnerabilities caused by the high volatility of capital flows, comprehensive and multi-layered policy measures were suggested.

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of China, which is a major driver of integration in the region. Other challenges include sustainable growth and how to connect the regional infrastructure needed with big savings in the region.

A former policy maker shared five points based on his experience of policy making. First, policy makers should account for political economy. As we never know when a crisis is coming, it is difficult to convince politicians to prepare. Second, the world economy has entered a new normal in which trade may not be open as the world had before, and where a shift from the manufacturing sector to the services sector requires more premium skills and better institutions. But many Asian economies, outside Singapore, are unready.

The third point was about the “stigma effect” that is associated with countries asking for and/or receiving financial assistance from the IMF. We should end the stigma of the IMF, which has changed a lot.

Fourth, how to prepare the Chiang Mai Initiative Multilateralization (CMIM) for a big crisis. The CMIM can help small Asian economies, but it may not help if there is a crisis in the large Asian economies, such as Indonesia and Malaysia. As to international cooperation, we need to refine the CMIM and ASEAN +3 Macroeconomic Research Office (AMRO).

Fifth, lessons from the global financial crisis, the “taper tantrum” that followed the Federal Reserve’s plans to tighten policy, and renminbi devaluation indicate a need for discussions between advanced economies and developing countries, such as the Federal Reserve’s improvement of communications with developing economies. A forum is needed to improve communication between the advanced and the developing economies.

A policy maker from a developing economy argued that as many complex factors were behind the financial crisis, it is not easy to determine how to ensure financial stability. But one of the most important policies is to ensure external soundness and secure foreign investor confidence. How to deal with high volatility of capital flows given the abundant global liquidity remains a key policy concern. He suggested comprehensive and layered policy measures to deal with the vulnerability caused by high volatility of capital flows.

Traditional macroeconomic policies have to be used, but fiscal policy space is limited and monetary policy becomes ineffective and exchange rates should be determined by the markets. Second, the importance of macroprudential and capital flow management measures for developing Asia was also stressed. Though the Basel Committee in 2013 introduced the “liquidity coverage ratio” for domestic currency, as Asia has been exposed to the risks of foreign currency mismatch over the decades, macroprudential policy must be currency-based to be effective. Therefore, for developing Asia, the policy measure on foreign currency liquidity coverage ratios can be an important tool to safeguard the Asian financial markets to deal with foreign currency

liquidity risks. For example, the Republic of Korea introduced the measure on foreign currency liquidity coverage ratios on 1 January 2017.

Contagion is fatal to financial sectors and Asian countries should work together to strengthen regional and global financial safety nets. Financial safety nets can include the following:

- A first line of defense is foreign reserves, but it is costly. Bilateral swap arrangements with key currency countries are part of a first line of defense.
- A second line of defense is regional financial safety nets such as the CMIM and AMRO.
- The final defense is global financial safety nets, such as the International Monetary Fund. The Group of Twenty and the IMF this year are pursuing an effective liquidity toolkit that is more flexible with less stigma.

One panelist from a central bank stressed that we should continue to build financial institutions that are resilient against shocks. Nationally, for example, building resilient financial institutions in the Philippines has been the focus and it has a national buffer to strengthen its financial system through building domestic debt markets.

A central bank panelist listed ten, nonexhaustive policy lessons and suggestions for Asia:

- Maintaining strong economic fundamentals with a strong banking system and with plenty of flexible fiscal space is important.
- Keep international reserves high and avoid twin deficits such as current account deficit and fiscal deficits.
- Keep the economy agile and competitive. Commodity-dependent economies must be devoted more to downstream activities and need to look for new sources of growth.
- Continue to pursue market openness. Policy makers should use market mechanisms to achieve public policy objectives. It is argued that managing floating exchange rates is easier than managing fixed exchange rates.
- Always maintain strong banking systems. A strong banking system should be an enabler for the real economy and banks should not be the sole provider of the funding for the economy. Malaysia, for instance, experienced significant vulnerabilities stemming from its bank-dependent economy during the AFC; in the 20 years since then, it has exerted substantial efforts to develop bond markets and capital markets to provide viable avenues for businesses to raise funds. Now one-third of the funding for the economy comes from the banking sector, one-third of it from the bond markets and the rest from the equity markets. Private equity and crowd funding are new financing sources.
- Create a domestic banking champion. In the Asian financial crisis, credit lines were suddenly withdrawn when foreign banks did not provide credit. In the global financial crisis, trade finance was unilaterally impacted.

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Contagion is a major risk to financial sectors. Asian countries should work together to strengthen regional and global financial safety nets and continue to build financial institutions that are resilient against shocks.

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A strong banking system should be an enabler for the real economy and banks should not be sole provider of the funding for the economy.

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Accordingly, a strong domestic banking sector is a form of a domestic financial safety net.

- Reducing inequality in wealth distribution should be a high policy priority: economic growth should be supported by the creation of high value-added jobs, which offer much higher wages. Those also require training and investment.
- Accelerate efforts to strengthen bilateral relationships in the banking sector across economies. It is a key to facilitate payment systems in the banking system. Bilateral arrangements are easier to manage and more benefits can be obtained.
- Reduce reliance on any single currency—overdependence has become a source of instability. Greater diversity will most likely lead to more options for business to support growth and greater currency stability. A bilateral local currency settlement framework among regional member countries needs to be done more.
- Small, open-economy challenges are a given, so it is also a given that policy prescriptions to deal with the challenges will be unprecedented and different from those used in advanced economies. Financial markets and international financial institutions need to understand the nature and the policy prescriptions.

A panelist from an advanced economy in Asia stressed infrastructure financing and emphasized the importance of how to attract private financing with public financing. He then argued that increasing the rate of return on private financing had to be done. Second, it was pointed out that mechanisms to provide funding to SMEs were needed. Increasing domestic savings can create stable domestic markets. Towards increasing domestic



savings, we need a financing structure for corporate bonds. Malaysia is a good example of diversifying funding sources, with banks, equities, and bonds. Third, income disparities are increasing in Asia despite economic growth. Tax measures including tax compliance, progressive tax rates, land tax, wealth tax, and inheritance tax, can mitigate the widening gap in income disparity. Fourth, as to stable capital flows, if domestic savings and markets are well established, then reliance on overseas funding will be reduced, which can help provide stable capital flows.

A central bank governor stressed the volatility of capital flows and the impact on investors' decisions on investment and exchange rates. Development in the external sector has implications for economic growth and well-being. The need to reduce income inequality in Asia was stressed.

A former policy maker from a developing economy pointed out that the slowdown of economic growth in the People's Republic of China is a risk through the trade channel in Asia and raised concern about rising protectionism and capital flow volatility as challenges.

Given the challenges, the Indonesian perspective was also raised. It is believed that the resource boom is over and the Indonesian economy stands at a crossroads. Due to rising income per capita in Indonesia, the country cannot continue its strategy of cheap labor. One way to sustain 6%–7% growth is to improve human capital. Infrastructure investment is also a key to increasing productivity.

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## Unwinding of “massive liquidity” created by Europe, the United States, and Japan can have unintended consequences for emerging market economies.

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Current risks include the “massive liquidity” created by Europe, the United States, and Japan. All crises have followed massive increases in money supply. Before the 1997 Asian financial crisis, the US had massive liquidity, in 1995–1996. In the 1990s, the Japanese crisis was preceded by excess liquidity. Second, it was also stressed that the creation of a middle class in Asia is important. Export-oriented growth cannot be sustained and a shift to domestic orientation is needed.

A panelist explained short-term risks and stressed the necessity of long-term growth. The risks especially this year, may include (i) the size and the speed of the rollback of Federal Reserve assets; (ii) geopolitical risks in Asia; and (iii) concern about protectionism, which is a danger for the global economy. As to long-term economic growth, investment, especially in infrastructure, is crucial. A concern was raised on how to increase investment against the global policy uncertainty.

A central banker from a developing economy pointed out that (i) an open trade system matters; (ii) the Federal Reserve’s unwinding needs to be coordinated; (iii) there is a need to get the fiscal spending side in order on the revenue side; and (iv) it is important to build infrastructure and enhance education.

The IMF participant explained that a crisis is a combination of underlying vulnerabilities plus a specific crisis trigger. The specific trigger is fairly unpredictable, making prevention almost impossible. The only thing we can do is to minimize underlying vulnerabilities, which are typically mismatches. A much deeper risk is the great divergence in the world between those believing in the modern world and others rejecting it.

Then, the floor was opened for comments and discussions. An Asian Development Bank (ADB) discussant compared the CMIM and the European Stability Mechanism and raised two points. The first was about the lender of last resort and liquidity provisioning functions in Asia. The European Stability Mechanism functions by issuing bonds in order to recapitalize banks in addition to providing liquidity to economies, while CMIM provides liquidity only to economies. It was questioned whether Asia needs to have regional mechanisms to support recapitalization for financial institutions given that ASEAN is implementing Qualified ASEAN Banks. More ASEAN banks are engaging in cross-border activities and some will become de facto regionally systemically important financial institutions.

The concept and recent progress on “cross-border collateral arrangements” in ASEAN+3 were briefly explained as a mechanism that would allow financial institutions of member countries to use each other’s government securities as collateral to obtain liquidity from the central bank of the host country where member banks are operating. The concept would aim to enhance liquidity through market mechanisms and develop local currency bond markets.

An ADB discussant compared Japanese banks' low volatility status to the higher volatility of bank flows elsewhere, such as in Europe and the US. The second question was for the policy options to deal with banking sector nonperforming loans, such as recapitalization, asset management companies, mergers and acquisitions, and institutional reforms.

Then, a series of questions from the floor followed. The first question was about how useful floating exchange rates are for dealing with shocks from foreign countries and about types of macroprudential policies. A policy maker from a developing economy asked if the IMF could implement "debt forgiveness or debt relief first" in exchange for institutional reforms. One participant pointed out that the CMIM has not been tested yet and there is a concern about its effectiveness, asking about its size and ways to improve it.

The IMF participant responded to a question about debt forgiveness in exchange for institutional reform, arguing that the IMF is a credit institution and usually its program lasts over a short term. A panelist from an international institution argued that 80% of the CMIM comes from the People's Republic of China, Japan, and the Republic of Korea, which accumulate about \$5.0 trillion in international reserves. Asia does not lack "fire power" to meet a liquidity run in the region. As to the European-style facility, it is argued that the situation in Asia is not similar and if something happens to such cross-border financial institutions, the central bank should be obliged to recapitalize the banks. It was further argued that Asia does not need to have a regional facility to recapitalize troubled cross-border financial institutions.

The keynote presenter responded that regulators' and institutions' capacity are key to dealing with external shocks. He stressed the need to build buffers during good times. There were comments about lessons learned in the history of financial crises by an academic panelist. He reminded the audience of a policy evolution responding to crisis over history, with examples such as the debate in 1913 in the US on the creation of the central bank and how the opinion substantially shifted during the Great Depression. Moreover, he argued that, considering the policy evolutions to the crises, globalization requires global governance, which we do not yet have. Therefore, it is important these days for policy makers to increase regional resilience.

Responding to comments from the floor, a central bank governor presented his perspectives on financial safety nets, including the question about "lender of last resort". He stressed that (i) the first safety net is each country's own international reserves; (ii) second is the ability to go to markets to borrow; (iii) third is bilateral swap arrangements; (iv) fourth are multilateral regional arrangements like the CMIM; and (v) fifth, the Global Financial Safety Net of the IMF. He noted that there is no operational experience of running the CMIM yet.

In response to the question about low volatility in Japanese banks' lending to Asia, it was explained that, in the past, Japanese banks provided funding to

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Relating to the importance of financial safety nets, it was stressed that: (i) the first safety net is each country's own international reserves; (ii) second is the ability to go to markets to borrow; (iii) third is bilateral swap arrangements; (iv) fourth are multilateral regional arrangements like the CMIM; and (v) fifth, the Global Financial Safety Nets of the IMF.

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the real economic activity of Japanese firms and they also invested in Japanese government bonds because of the positive rate of return. When Japanese banks go abroad, they also provide funding to production networks, which is why Japanese bank lending appears stable. But, if current extra monetary easing and negative interest rates continue, that would accelerate and encourage portfolio investment of Japanese bank lending as they need to look for better investments in the US, Europe, and Asia, which may be a concern for the volatility of Japanese bank lending.

The keynote presenter responded to the policy option question on banks' NPLs. Giving a universal prescription to deal with banking mass itself is part of the problem, as each economy's circumstances are different. But he argued that dealing with banks' bad assets with an option of an asset management company mechanism is a general rule and probably works better than wholesale bank closures.

The former Indonesian finance minister commented that treatment may depend on the situation. He argued that during crises, closing some banks is a dangerous policy as we cannot predict banking panic, similar to those which arose during the Asian financial crisis in Indonesia. According to the policymaker, in 2008, preventing contagion was a much more important goal when facing small bank failures. So, the government decided to bail out even small banks as one small bank collapse can trigger a rush on other banks.

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## Balancing funding sources between banks, equities, and bonds is an important lesson to developing Asia.

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A panelist from a central bank maintained that though we need a strong banking sector, we should not overly depend on it, as banks cannot do everything to finance economic growth. Balancing funding sources between banks, bonds, and equity and the need to look for alternative financing such as equity financing and joint ventures are important lessons of the Malaysian experience. In addition, it was explained that Malaysia merged banks (stronger banks acquired weaker banks) and closed banks that were insolvent and not viable. He stressed the need to develop local currency bond markets to deal with mismatches and said that Malaysia expanded the bond markets fourfold over the last 20 years.

As to CMIM improvement, one policy panelist shared his experience in the 2013 taper tantrum. Indonesia tried to tap into the CMIM during the crisis but the government was not sure about the procedure or operations of CMIM, so the government opted to engage in bilateral swap arrangements with Japan and the Republic of Korea instead. The different roles of CMIM and AMRO and the IMF were raised by the panelist of the Republic of Korea as CMIM and AMRO are part of regional financial safety nets, not global safety nets.

In closing, the IMF participant stated that foreign reserves were the first line of defense, but the cost of maintaining reserves was high. It is therefore natural to see that countries want to pool the reserves with each other through things such as bilateral swap arrangements. Countries can then go to regional financial arrangements. Finally, the ADB chief economist concluded that the 1997-1998 Asian financial crisis was the mother of reform and regional cooperation in Asia.



## **20 Years after the Asian Financial Crisis** ***Lessons, Challenges, and the Way Forward***

### *Conference Highlights*

Jointly organized by the Asian Development Bank Economic Research and Regional Cooperation Department and the Asian Development Bank Institute, the conference brought together academia, governments, financial authorities, and international financial organizations to discuss and identify policy options for regional cooperation that safeguard financial stability and promote financial resilience.

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ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to a large share of the world's poor. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

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