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KEY POINTS

- Twenty years after the Asian financial crisis, Asia stands strong. Yet, Asia should not be complacent, and remain vigilant against a buildup of financial imbalances, ready to act if risks materialize, and proactively address structural weaknesses through broad-based reforms.

- Significant challenges remain while new vulnerabilities emerge from the steady rise in dollar-denominated debt, increasing private sector debt, and a pickup in nonperforming loans in some emerging Asian economies. With more pronounced global financial cycles, increasingly interconnected financial institutions and markets are also building the channels to fan global shocks.

- Three key lessons are drawn from Asia's crisis experience: (i) maintaining sound macroeconomic fundamentals is a prerequisite for economic and financial resilience; (ii) deepening and broadening financial systems is essential to boost both financial efficiency and resiliency; and (iii) greater regional cooperation efforts are needed to reinforce regional financial safety nets for financial resilience.

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20 YEARS AFTER THE ASIAN FINANCIAL CRISIS: LESSONS LEARNED AND FUTURE CHALLENGES

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INTRODUCTION

The Asian financial crisis (AFC) that took the world by surprise 20 years ago was a major turning point for many of the region's economies. The crisis exposed structural weaknesses and policy distortions in crisis-affected countries, along with poorly planned financial liberalization and premature capital account opening. A surge in external capital inflows—driven in part by the region's economic success and *de facto* dollar peg—led to excessive credit and asset price growth across crisis-affected countries. However, these financial imbalances quickly unraveled, triggering the crisis and threatening the region's long-term economic growth.

A wave of major economic and financial policy reforms in the aftermath of the crisis laid the foundations for periods of sustained high growth. Twenty years after the crisis, Asia has a stronger economic outlook today. Most crisis-afflicted countries have greatly reduced their dependence on external financing and strengthened their overall financial stability, with sound macroeconomic fundamentals and policies, flexible exchange rates, adequate foreign exchange reserves, and strong regional cooperation. While improvements in macroeconomic management and financial regulatory frameworks had been remarkable, the region's growth and financial stability were again disrupted briefly by the 2008/09 global financial crisis (GFC).

* The authors thank Guy Sacerdoti, Mara Claire Tayag, Monica Melchor, Ana Kristel Molina, and Racquel Claveria for their valuable contributions. In this brief, Asia refers to Asia and the Pacific, which includes the 48 regional members of ADB (45 developing economies plus Australia, Japan, and New Zealand).

Going forward, Asia needs to pursue broad-based reforms to address new and remaining vulnerabilities and safeguard financial stability. This Brief revisits the AFC for the lessons still valid today, examines the emerging challenges and vulnerabilities that could undermine future financial stability, and concludes with some policy considerations.

CAUSES OF ASIAN FINANCIAL CRISIS

The AFC began in Thailand in July 1997 and soon spread to Indonesia, Malaysia, and others. The Republic of Korea—then the region's fourth-largest economy and a new Organisation for Economic Co-operation and Development member—was also drawn into the crisis late in the year. Reflecting excessive short-term debt across East Asia, capital inflows slowed or reversed. Banks succumbed to high levels of nonperforming loans (NPLs). Investment rates plunged. And Asia's "Tiger cub" economies fell into deep recessions, with spillover effects on trading partners across the region and around the globe.

The AFC was both a currency and a banking crisis. Driven by the region's strong growth and *de facto* dollar pegs, a torrent of private capital flowed to Asia through short-term bank lending and portfolio investments. Asset price inflation and property bubbles also formed. Unfortunately, a cyclical downturn in Asia's exports widened their current account deficits—causing sharp currency depreciation and loss in investor confidence. In turn, capital flows reversed and asset prices collapsed, which put bank and corporate balance sheets in disrepair.

While we do not discuss here the political, corporate, or economic policy conditions that may, or may not, have set the stage for the crisis (see Figure 1 for the chronology of financial crises, theories, and policy advice), there were three common factors that directly triggered the crisis.

- **Currency mismatches.** The *de facto* dollar pegs in crisis-affected economies gave borrowers a false sense of security, encouraging them to take on excessive United States (US) dollar-denominated debt. The peg also caused widening fluctuations in effective exchange rates against trading partners—even as it stabilized bilateral exchange rates against the US dollar. The ensuing fluctuations weakened price competitiveness, deteriorating current account balances in crisis-affected economies like Thailand.

- **Maturity mismatches.** The increasing foreign capital flows were largely short term (below 1 year) and unhedged with high reliance on bank lending. The lack of prudential supervision and proper regulations allowed banks and other borrowers to use these inflows to invest in long-term projects—many in real estate and unproductive sectors. The price bubbles burst as the AFC spread, amplifying the crisis impact and leaving financial systems overloaded with nonperforming assets. In turn, banks and firms had difficulty rolling over their short-term debts due to their weakened balance sheets.

- **Inefficient allocation of foreign capital flows.** The region attracted substantial foreign capital inflows at relatively low interest rates, as investors looked for higher yields—on the back of strong economic growth in the region. However, weak risk management practice by banks, poor corporate governance, a lack of transparency in the financial sector, and limited absorptive capacity led to highly inefficient domestic allocation of these borrowed foreign resources.

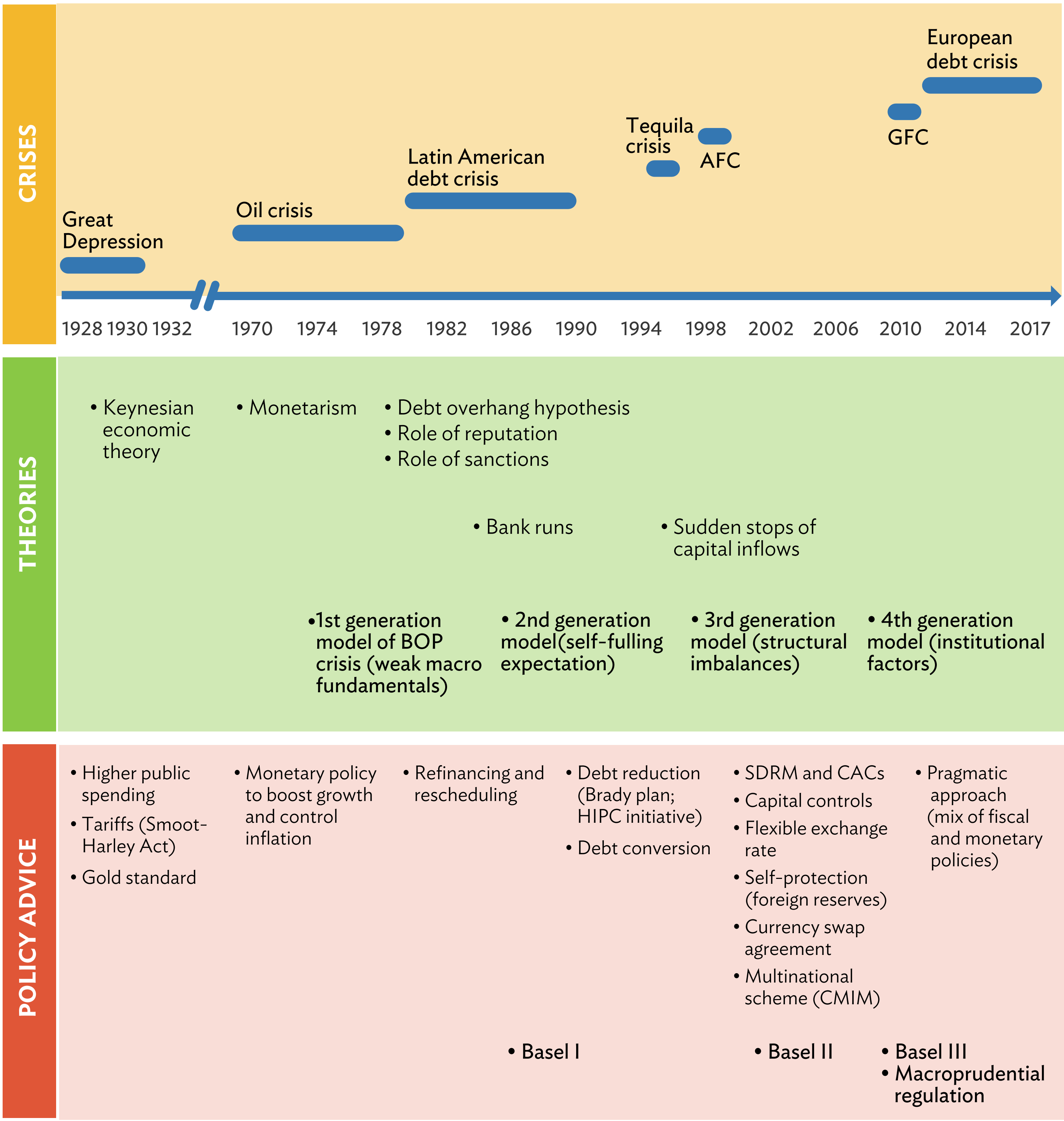
REGIONAL RESPONSES TO THE CRISIS

Authorities across crisis-affected countries recognized the importance of more coordinated regional responses to the crisis.

Bilateral assistance. As the crisis struck Thailand first, the "Friends of Thailand" was formed to extend early financial assistance. Contributors included Australia, Brunei Darussalam, the People's Republic of China (PRC), Indonesia, Japan, the Republic of Korea, Malaysia, and Singapore—even as the crisis would—by late 1997—debilitate Indonesia, the Republic of Korea, and Malaysia as well.

Multilateral assistance. In response to the spreading crisis, the international community mobilized $118 billion in loans for Thailand, Indonesia, and the Republic of Korea, along with other actions to stabilize the most affected countries. Financial support came from the International Monetary Fund (IMF), the World Bank, the Asian Development Bank (ADB), and governments in Asia, Europe, and the US. The basic strategy was to (i) help crisis-affected countries rebuild their official reserves, (ii) buy time for policy adjustments and reforms to restore confidence and stabilize economies, and (iii)

Figure 1: Chronology of Financial Crises, Theories, and Policy Advice



AFC = Asian financial crisis, BOP = balance of payment, CAC = collective action clause, CMIM = Chiang Mai Initiative Multilateralisation, GFC = global financial crisis, HIPC = heavily indebted poor countries, SDRM = sovereign debt restructuring mechanism.
Source: Authors' compilation.

minimize any lasting disruption to countries' relations with external creditors.

However, the IMF-led international rescue package came with conditions. Funding was contingent on stringent macroeconomic adjustments and substantial domestic policy reforms, whose effects on the short-term recovery may have been controversial at the time. The mix of policies varied by country, but generally included measures to clean up the balance sheets, rehabilitate weak financial systems, and to improve economic competitiveness. On the macroeconomic side, countries hiked interest rates and tightened fiscal policy to stabilize currencies while pursuing banking and corporate restructuring.

Regional Cooperation Initiatives (see Figure 2 for a chronological overview of Asia's financial integration initiatives). The first informal summit of Association of Southeast Asian Nations (ASEAN) leaders plus those from Japan, the PRC, and the Republic of Korea (ASEAN+3) met immediately after the crisis—in December 1997 and again in December 1998. As stabilization measures began to take hold, they decided at the third summit in December 1999 to create a regional dialogue process that would lead to greater regional financial system stability. Over the next several years, they established four major regional initiatives/institutions, among others, that would create financial safety nets and build resilience against future financial vulnerabilities.

- **ASEAN+3 Economic Review and Policy Dialogue.** The Economic Review and Policy Dialogue (ERPD) was established in May 2000 among finance ministers as a formal "process" designed to support joint regional economic surveillance through peer review and policy dialogue. It paved way for the more formal ASEAN+3 finance ministers' and deputies' meetings.

- **ASEAN+3 Chiang Mai Initiative Multilateralisation.** Introduced in May 2000, the Chiang Mai Initiative was the first regional currency swap arrangement in ASEAN+3. It was replaced by the Chiang Mai Initiative Multilateralisation (CMIM) in March 2010, converting the swap arrangements into a single contractual agreement. Its core objectives are to address balance of payments and short-term liquidity difficulties in ASEAN+3 members (which also include the Hong Kong Monetary Authority). It supplements existing international financial arrangements. The initial $120 billion in 2010 was doubled to $240 billion in May 2012 and came into effect in June 2014.

- **ASEAN+3: Asian Bond Markets Initiative.** The lack of efficient local currency bond markets across the region contributed to narrow financing options for the region, which led to the double mismatch problem. The Asian Bond Markets Initiative (ABMI) was established in December 2002 to develop efficient and liquid local currency bond markets to better channel Asia's vast savings to more productive long-term investments. In turn, broader and deeper bond markets could mitigate currency and maturity mismatches.

- **ASEAN+3 Macroeconomic Research Office.** Established in May 2011, ASEAN+3 Macroeconomic Research Office (AMRO) is the regional macroeconomic surveillance unit supporting the CMIM. It contributes to the macroeconomic and financial stability of the region by conducting macroeconomic surveillance, supporting the implementation of CMIM, and providing technical assistance to members. AMRO became a formal international organization in February 2016.

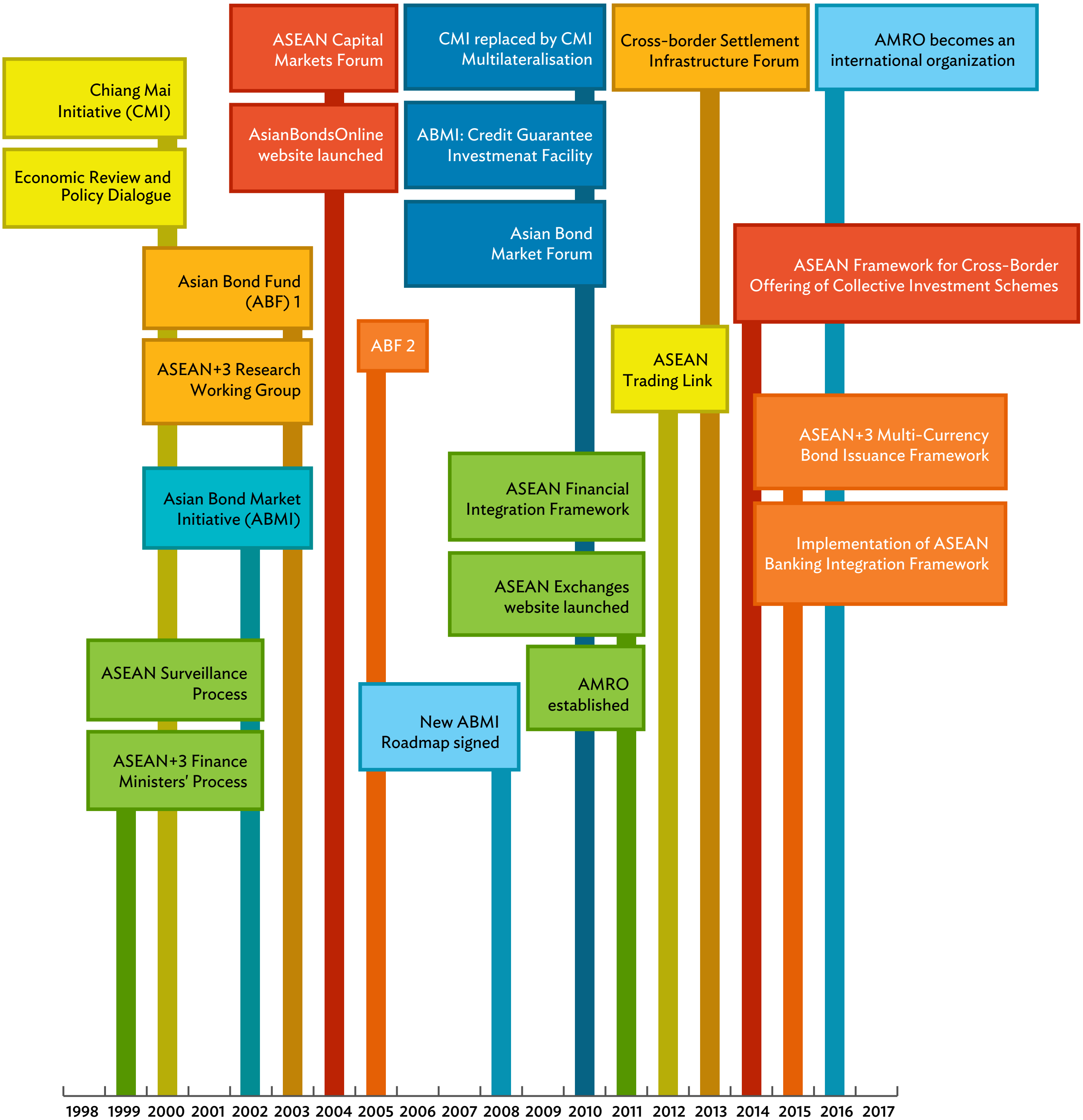
LESSONS LEARNED

Three critically important lessons emerged from the crisis experience.

- **The timing and sequencing of financial liberalization should be carefully managed.** Capital account liberalization must be preceded by the strengthening of the domestic financial system along with effective supervisory and surveillance capacity. Countries should liberalize long-term, nondebt-creating foreign direct investment before short-term capital flows. Without adequate preparation, massive capital flows can lead to unproductive investments and the formation of asset bubbles.

- **Maintaining strong macroeconomic fundamentals is essential.** Economies need to exercise prudent macroeconomic policies to maintain financial stability and fiscal sustainability, allow flexible exchange rate regimes, and build adequate fiscal space and sufficient

Figure 2: Asia's Financial Integration Initiatives Chronology



AMRO = ASEAN+3 Macroeconomic Research Office; ASEAN = Association of Southeast Asian Nations.
Source: Authors' compilation.

foreign exchange reserves as a buffer against future crises and the impact of external shocks.

- **Structural weaknesses should be addressed through broad-based reforms to improve financial efficiency and resilience.** Balance sheet vulnerabilities and weak market discipline by banks, nonbanks, and nonfinancial corporations can amplify macroeconomic shocks. Therefore, comprehensive reforms are needed to (i) restructure their balance sheets; (ii) strengthen prudential regulation and supervision; and (iii) raise institutional and legal frameworks in crisis countries to meet international best practices, core principles, and standards.

REMAINING VULNERABILITIES AND NEW CHALLENGES

Despite noticeable improvements in macroeconomic and financial management, the region continues to face challenges from increasing leverage and financial interconnectedness, which acted as propagation mechanisms during the GFC.

- **The prevalence of US dollar-denominated debt by regional borrowers has critical implications for Asia's financial markets.** Despite the growth of local currency bond markets since 2000, Asian financial systems remain bank-dominated and heavily reliant on US dollar-denominated debt instruments. The region's continued foreign borrowing and reliance on foreign portfolio investment flows remain a primary source of risk. Combined with weak macroprudential regulations, excess leverage and imbalances between foreign assets and liabilities could make Asian economies vulnerable to sharp capital flow reversals. More so, a sudden change in US dollar funding conditions and shifts in investor sentiment can further aggravate dollar liquidity and funding risks.

- **Policy makers need to investigate the channels through which nominal exchange rates against the US dollar affect domestic financial conditions, especially as the US Federal Reserve pursues monetary policy normalization, including the possibility of sharper-than-expected action.** Generally, depreciation against the US dollar increases competitiveness, boosts net exports, and supports economic growth. However, the financial effects of exchange rate movements can go the opposite direction: while appreciation against the US dollar is associated with financial inflows to emerging market economies,[2] depreciation leads to financial outflows, putting contractionary pressure on domestic financial conditions.[3] Therefore, Asia's policy makers need to carefully monitor sharp exchange rate fluctuations and their economic consequences through both trade and financial channels and employ appropriate macroprudential tools and capital flow management measures to help mitigate spillovers from changing US monetary policy.

- **Rising private sector debt—of corporates and households—continues to be a concern in several economies in the region.** Increasing leverage ratios in several Asian economies underscore this concern. The leverage ratio in the PRC, for example, has been increasing steadily in recent years, mainly from increasing corporate debt. From 73% in March 2010, the ratio reached 90% in March 2017. Similar increases in the loan-to-deposit ratios occurred in Singapore, Indonesia, and Cambodia. Household debt is also picking up in several economies. In the Republic of Korea, the household-debt-to-gross domestic product (GDP) ratio rose from 74% in late 2008 to nearly 92% in the third quarter of 2016. Likewise, Thailand and Malaysia have seen significant increases in household debt over the same period (both reaching about 71%). Although the levels are not yet as alarming as these, the household-debt-to-GDP ratios have increased quickly in other economies; for instance, up from 19% in the first quarter of 2009 to 43% in the third quarter of 2016 in the PRC and 43% to 62% in Singapore during the same period.

- **Rising levels of NPLs need to be monitored and addressed effectively at an early stage.** NPLs have come down substantially since the AFC and remain moderate, especially in the crisis-afflicted countries. For example, Indonesia and Thailand had NPL ratios over 40% in 1998, while in 2016 they were just 3%. However, NPLs have begun to rise in some economies

[2] The financial channel for dollar exchange rates is in the opposite direction to the net export channel. With an appreciation of local currency against the US dollar, dollar-denominated cross-border bank lending on emerging market economies will rise, which causes buoyant financial conditions, boosts real economic activity, and attracts capital inflows.

[3] This will tighten financial conditions on emerging market economies, slow real economic activity, and further accelerate capital outflows.

and sometimes rapidly with deteriorating domestic asset quality.[4] According to the China Banking Regulatory Commission, NPLs nearly tripled from CNY526.50 billion in March 2013 to CNY1,510.00 billion in December 2016—even if the NPL ratio rose from just 0.96 to 1.74. Effective workout and resolution of NPLs are central to avoid loss of confidence in the banking system and ensure banks continue to support growth.

Global financial trends present new challenges to the region's policy makers—particularly (i) more pronounced financial cycles and (ii) financial globalization and deeper interconnectedness.

- **Understanding the dynamics of financial cycles is essential for the early detection of financial stress and buildup of systemic risk.** Financial cycles—which include leverage and credit cycles—have become more pronounced and increasingly procyclical. Peaks of financial cycles can be associated with subsequent financial crises or financial distress. And financial booms—characterized by surging asset prices and rapid credit growth—reinforce each other and tend to be driven further, not only by loose global monetary and financial conditions, but by periods of financial innovation as well.

- **In the age of financial globalization, deepening financial interconnectedness presents the risk of financial contagion to emerging market economies.** Shocks emanating from one part of the system can be amplified and transmitted through exposure to common financial intermediaries or markets. For example, recent research shows that banking networks and interbank markets act as a transmission channels for financial shocks from lending advanced economies to borrowing emerging economies. Financial contagion can occur as advanced economies experiencing financial distress pull back from their lending to emerging market economies, leading to pronounced capital outflows from these emerging market economies.

[4] The economies of Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, India, Kazakhstan, the Kyrgyz Republic, Maldives, Mongolia, Pakistan, Tajikistan, Tonga, and Vanuatu have NPL ratios above 5%, based on latest data accessed in September 2017 from the World Bank and central bank of individual economies.

ENHANCING FINANCIAL RESILIENCE AND MOBILIZING LONG-TERM FINANCE TO ADDRESS CHALLENGES

Asia should not be complacent and remain vigilant against a buildup of financial imbalances. It must be proactive and ready to act if risks materialize—to manage financial imbalances, strengthen macroeconomic fundamentals, and continue to address structural weaknesses through broad-based reforms.

Asia also needs to improve the quality of financial intermediation, further develop its financial sectors and markets, and mobilize stable long-term finance to achieve its development goals. The region continues to face significant long-term challenges that constrain its long-term development prospects. These include, among others, (i) narrowing infrastructure gaps, (ii) reversing the trend of widening inequality, (iii) scaling up innovation and boosting productivity growth, (iv) managing urbanization and addressing climate change, and (v) preparing for population aging. If these long-term challenges are not adequately addressed, regional financial stability and resilience cannot be guaranteed.

- **Maintaining sound macroeconomic fundamentals is a prerequisite for economic and financial resilience.** As the AFC and GFC showed all too well, large and volatile capital flows can destabilize emerging market economies. Asian policy makers should be ready to take pre-emptive measures beyond conventional macroeconomic policies that focus on the near-term balance of risks between inflation and growth outlook. We learned what is needed during the AFC, and tested it through the GFC. These lessons include targeted macro- and micro-prudential measures that curb excesses—such as foreign currency loan exposure or credit growth—while strengthening financial safety nets.

- **Deepening and broadening financial systems is essential to boost both financial efficiency and resilience.** Asian financial systems remain characterized as being mostly bank-based, heavily reliant on foreign currency funding, and inefficiently allocating capital. The vast amounts of excess savings could be better channeled into more productive investments. For example, there is about $4.4 trillion invested in Asia's pension funds, $5.1 trillion with insurers, and several large social security and public pension reserve funds. Yet, these potential investors often hold back due to concerns over political risk, weak regulatory systems and legal enforcement, governance standards, undeveloped capital markets with low liquidity, and currency risk. A more developed and regionally integrated banking and financial market can improve efficiency in allocating regional savings and moving liquidity through financial systems to the real sector. It can also increase access to financial services for poor households and small businesses. Introducing new financial products, enhancing the quality of financial market infrastructure and improving regulatory and supervisory capacity would not only allow for more efficient capital allocation, but widen the investor base as well.

- **Continuing the development of local currency bond markets across the region remains pivotal to mobilizing long-term finance.** While local currency bonds outstanding in ASEAN+3 increased threefold from just under $6.6 trillion in 2002 to $19.8 trillion by the end of the fourth quarter of 2016, challenges remain. To meet the region's financing needs, local currency bond markets must improve market efficiency, broaden their investor base, deepen secondary markets, and integrate more regionally. Moreover, developing local currency bond markets will help provide long-term finance opportunities for investors—vital for financing long-term infrastructure projects.

- **Financial crises highlight the need for regional cooperation and effective coordination across national and international institutions to build financial resilience and safeguard financial stability.** While financial integration allows for more efficient allocation of savings across borders in normal times, it heightens the fragility of emerging economies during times of financial distress, increasing their vulnerability to sudden capital flow reversals and market instability. Greater financial integration and interconnectedness that can also result in systemic risks and contagion far beyond national borders calls for regional dialogue on policies and mechanisms that foster greater cooperation. The scale and speed of supplying emergency resources is one of the collective responses that would require the cooperation of all stakeholders—yet allows for creative and flexible options at the national level. Further strengthening regional financial cooperation initiatives—such as the CMIM—can contribute to the region's macroeconomic and financial stability. Regional cooperation to develop effective resolution mechanisms for distressed assets of cross-border financial institutions is also an important part of broader financial safety net arrangements.

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Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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