



RCI WEEK 2017 | 27–29 November 2017 • ADB Headquarters, Manila, Philippines



ADB

AEIR 2017 Special Theme

THE ERA OF FINANCIAL INTERCONNECTEDNESS: HOW CAN ASIA STRENGTHEN FINANCIAL RESILIENCE?

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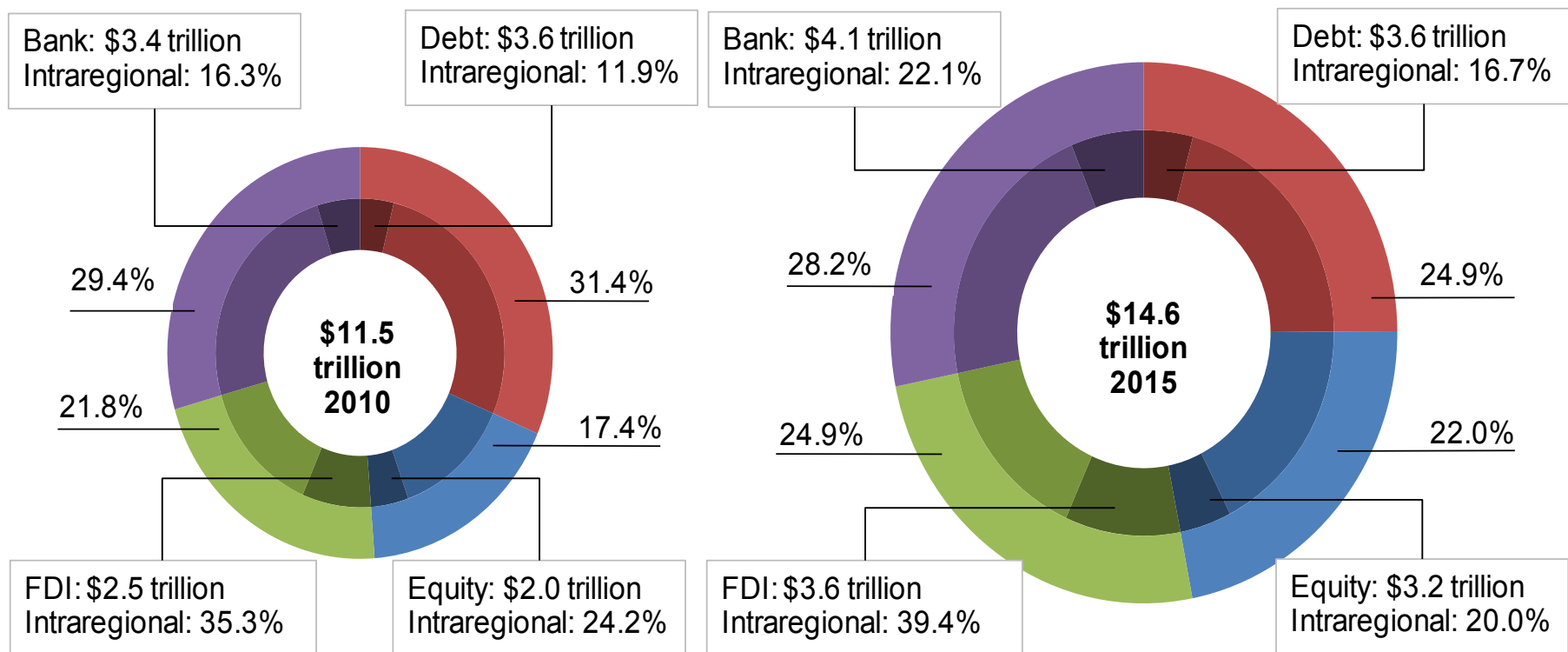
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Key Messages

- Despite much improved financial health, Asia continues to face structural weaknesses in financial systems while new challenges emerge.
- Asian financial systems have become increasingly interconnected both regionally and globally.
- Growing financial interconnectedness can increase risks of financial spillovers through cross-border lending, foreign currency denominated debt, and sharp deterioration of bank assets.
- Results highlight the need for strengthening macroprudential regulation and supervision, regional cooperation for financial regulation and multilayered financial safety nets.

Asia's cross-border assets grow



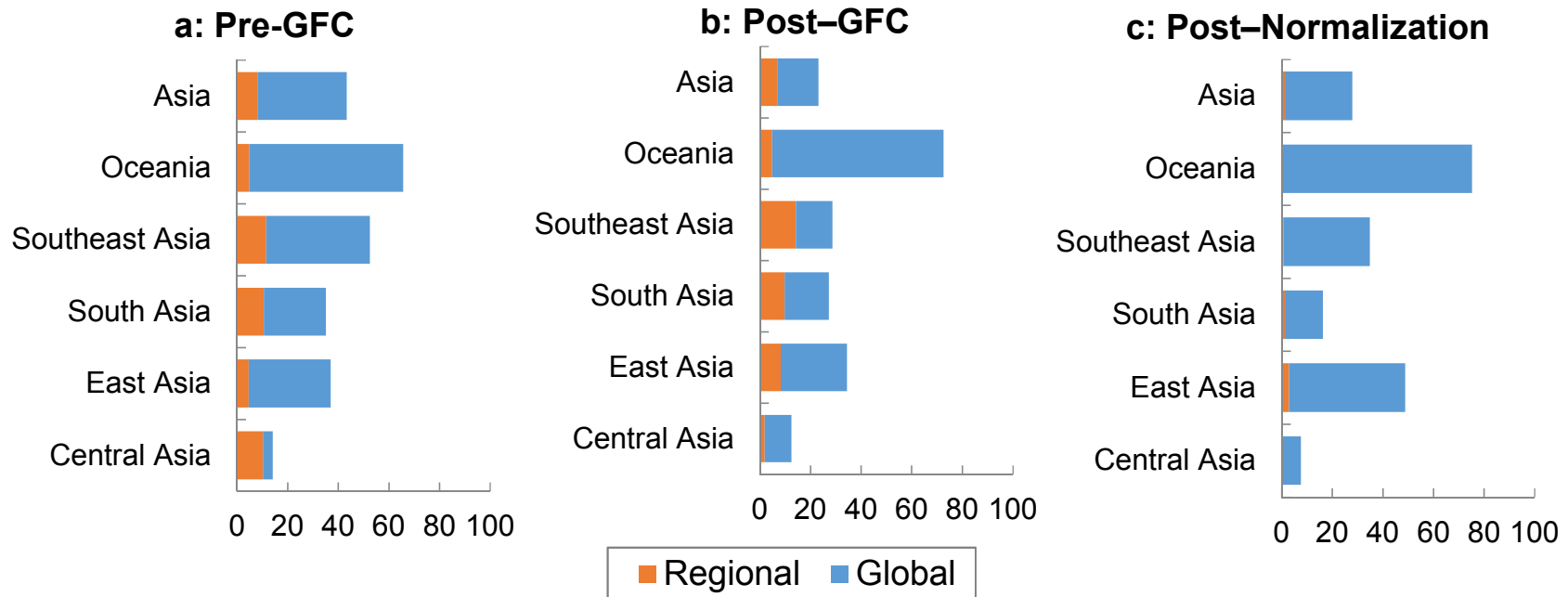
FDI = foreign direct investment.

Notes: FDI assets refer to outward FDI holdings. Bank assets refer to bank claims of Asian economies. Asia includes all 48 ADB regional members for which data are available as of December 2015.

Sources: ADB calculations using data from International Monetary Fund. Coordinated Portfolio Investment Survey. <http://cpis.imf.org> (accessed September 2017); International Monetary Fund. Coordinated Direct Investment Survey. <http://cdis.imf.org> (accessed February 2017); and Bank for International Settlements. Locational Banking Statistics. <https://www.bis.org/statistics/bankstats.htm> (accessed May 2017).

Asia's equity markets are more exposed to global shocks

Share of Variance in Equity Returns Explained by Global and Regional Shocks (%)



GFC = global financial crisis.

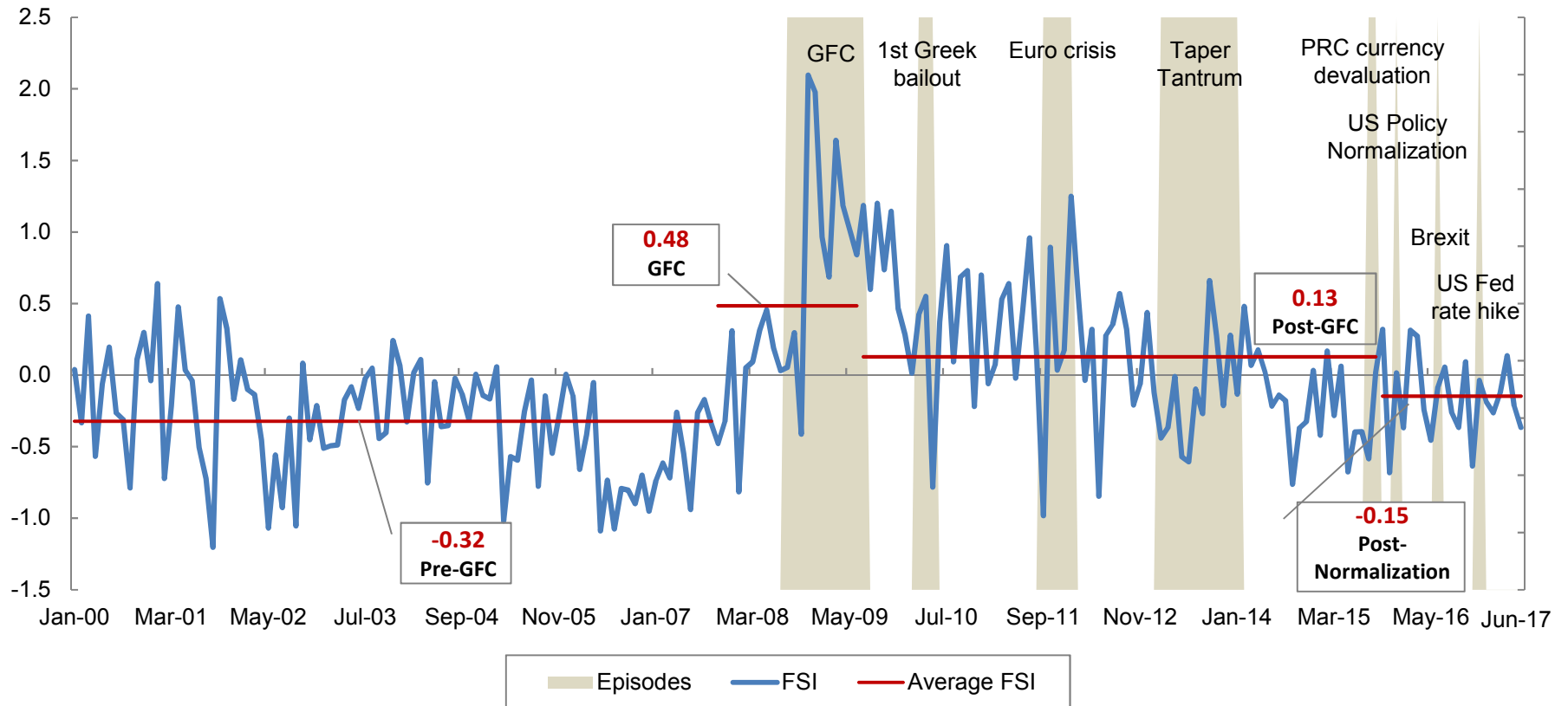
Notes: Pre-GFC = January 1999 to September 2007. Post-GFC = July 2009 to December 2015. Post-Normalization = January 2016 to June 2017.

Central Asia includes Georgia, Kazakhstan and the Kyrgyz Republic. East Asia includes the People's Republic of China; Hong Kong, China; Japan; the Republic of Korea; Mongolia; and Taipei, China. South Asia includes Bangladesh, India, Nepal, Pakistan, and Sri Lanka. Southeast Asia includes Indonesia, the Lao People's Democratic Republic; Malaysia; the Philippines; Singapore; Thailand; and Viet Nam. Oceania includes Australia and New Zealand. Asia includes Central Asia, East Asia, South Asia, Southeast Asia and Oceania.

Sources: ADB calculations using data from Bloomberg; CEIC; World Bank, World Development Indicators (accessed July 2017); and methodology by Lee and Park (2011).

Financial stress up in response to global and regional shocks

Developing Asia Financial Stress Index



Note: Based on principal components analysis. Includes People's Republic of China; Hong Kong, China; India; Indonesia; Rep. of Korea; Malaysia; Philippines; Singapore; Thailand; Viet Nam

Source: ADB calculations using data from Bloomberg, CEIC, and Haver Analytics (all accessed September 2017).

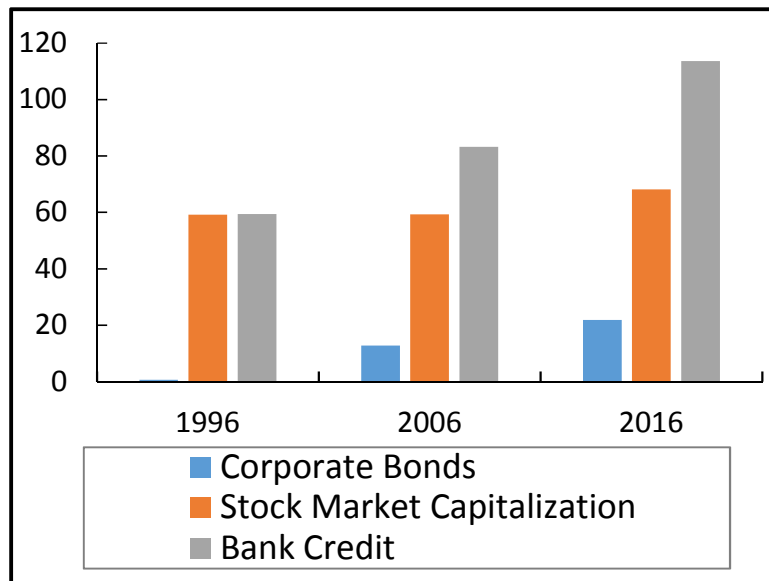
Asia's financial health improved but pockets of vulnerability remain

- Structural weaknesses plus new challenges
- Remaining regulatory policy gaps also leave room for a buildup of financial vulnerability
- Asia's policy makers must remain vigilant, while continuing to deepen financial reforms

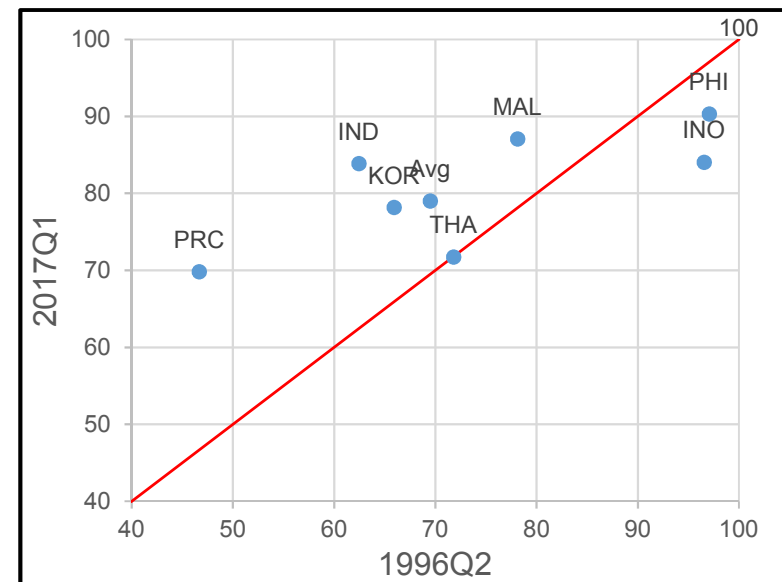
Structural weaknesses remain

- **Limited capital market-based financing solutions** such as long-term local currency bond markets
- **Continued heavy reliance on foreign currency- (US dollar-) denominated debt**

Corporate Financing as % of GDP—Emerging Asia (excluding HKG and SIN)



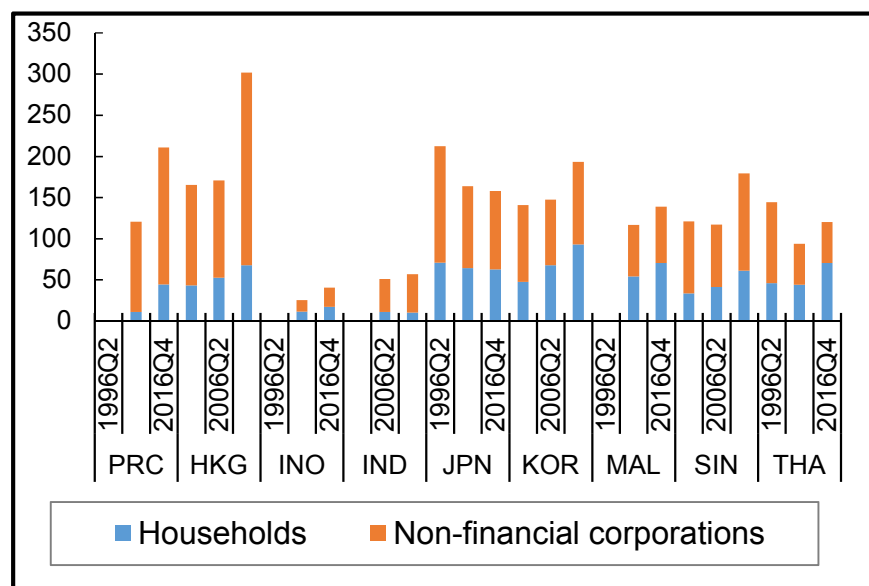
Share of outstanding international debt securities denominated in US dollars, Pre-AFC vs. latest (%)



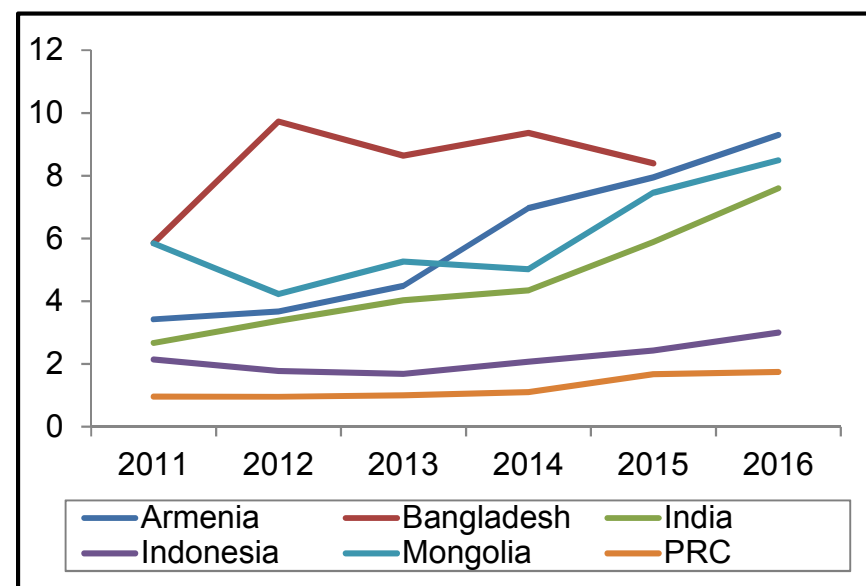
Recent trends to signal financial fragility

- **Rising private-sector debt and leverage**—combined with the rapid growth of shadow banking—increased financial fragility
- **Deteriorating bank asset quality** can have potential macrofinancial feedback effects

Credit to Private Sector—Selected Asian Economies (% of GDP)



NPL Ratios of Selected Asian Economies (%)



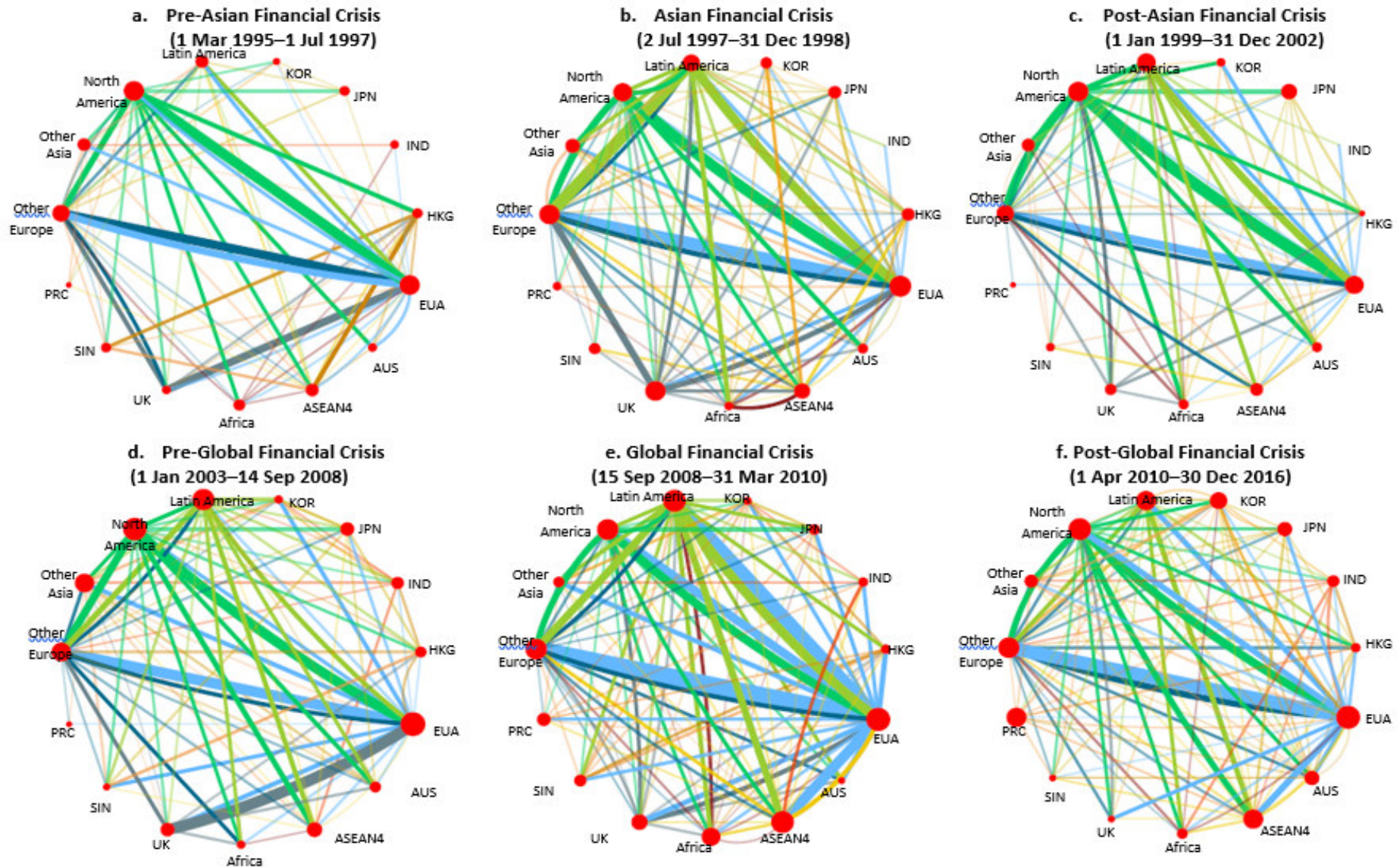
Source: Bank for International Settlements.

Source: ADB calculations using data from Bank of Mongolia; and World Bank. World Development Indicators.

New challenges to Asia's financial stability

- Asian financial markets have grown more interconnected both intra-regionally and globally over the past 20 years
- A more interlinked global banking network can spur transmission of financial risk from advanced to emerging economies
- A buildup in NPLs can have macro-financial feedback effects, with possible spillover through increasingly interconnected financial markets

Asian financial markets have become more interconnected regionally and globally



A heightened financial interconnectedness can transmit shocks across borders

Impact of direct and indirect banking exposures to the crisis-affected countries on capital outflows during the GFC

Variables	Without Control Variables		With Control Variables	
	(1) Outflows	(2) Outflows	(3) Outflows	(4) Outflows
Direct exposure of banking sector	0.257*** (0.075)	0.282*** (0.078)	0.228** (0.085)	0.253*** (0.086)
Indirect exposure of banking sector		0.722** (0.285)		0.359 (0.269)

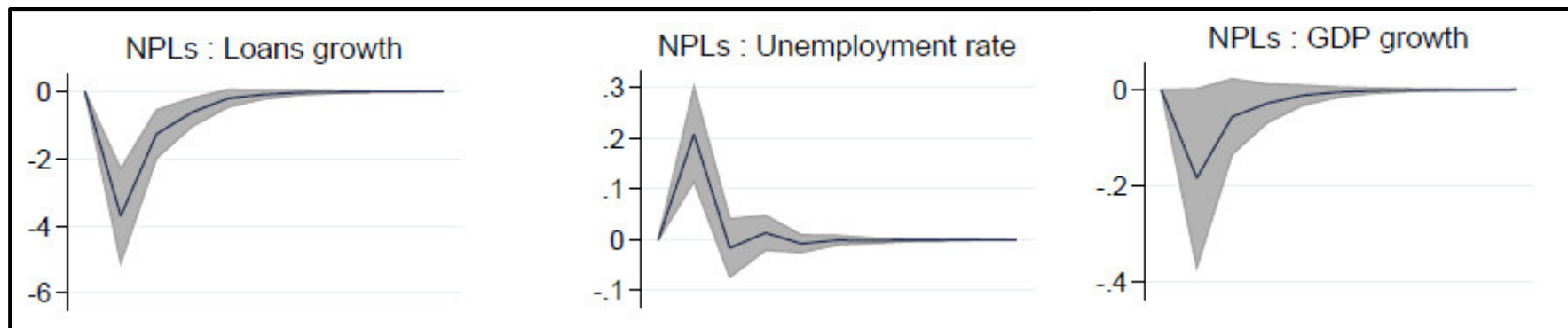
*** = significant at 1%, ** = significant at 5%. Robust standard errors in parenthesis. Coefficients for the control variables are not shown for brevity.

Source: Park and Shin (2017).

Buildup of NPLs can affect real sector and spill over through macrofinancial linkages

- **Macrofinancial feedback effects:** Empirical findings show that an increase in NPLs leads to a reduction in credit supply, a rise in unemployment, and slowdown in overall economic activity
- **Systemic implications:** NPL shocks can transmit across borders through macrofinancial linkages

Estimated Impulse Response Functions to a Shock in the NPL Ratio



Source: Lee and Rosenkranz (2017)

Policy considerations to enhance financial resilience

- A key lesson drawn from recent crises is the urgent need to strengthen macroprudential regulation and supervision
- Further developing local currency bond markets across the region is key to enhancing financial resilience and mobilizing long-term finance
- Growing regional banking activities and institutions—possibly of systemic importance—underpin the need to discuss regional regulatory cooperation, including resolution mechanisms for interconnected regional banks
- The region should consider reviewing and strengthening existing financial safety nets against potential contagion and spillover effects



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Thank you!