Economic Integration in Asia: Progress and Challenges

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Advances and Challenges in Regional Integration
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Outline

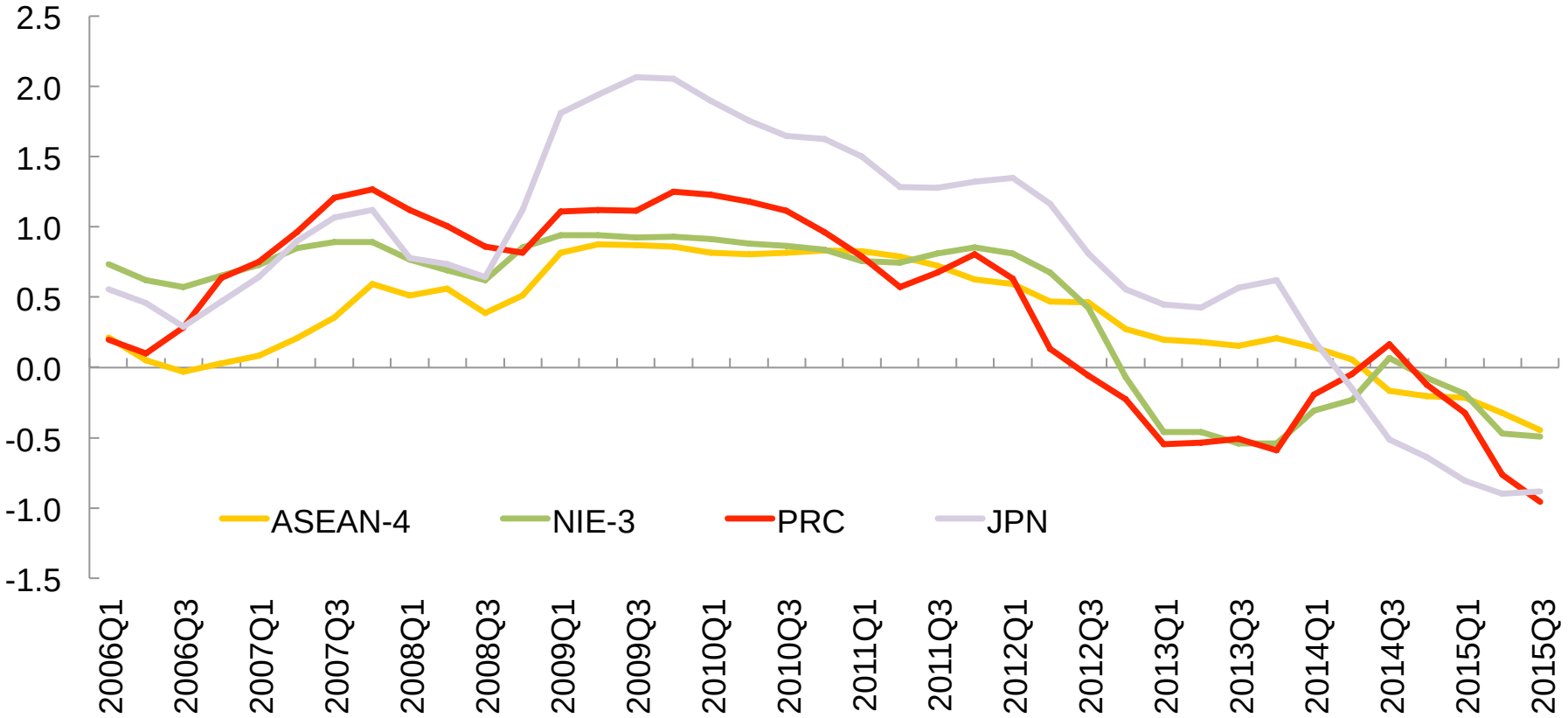
- Progress of Regional Economic Integration
  - Business Cycles and Growth Spillovers
  - Trade Integration and Regional Value Chain
- Trade slowdown and PRC Factors
  - Global trade slowdown: Cyclical and Structural factors
  - Structural transformation in PRC
- Financial integration and volatility
  - Structural patterns of capital flows to Asia
  - FDI vs. Portfolio and other investment

ADB

Progress of regional economic integration

Growth of ASEAN+3 less correlated with the US

ASEAN+3 Business Cycle Correlation with US

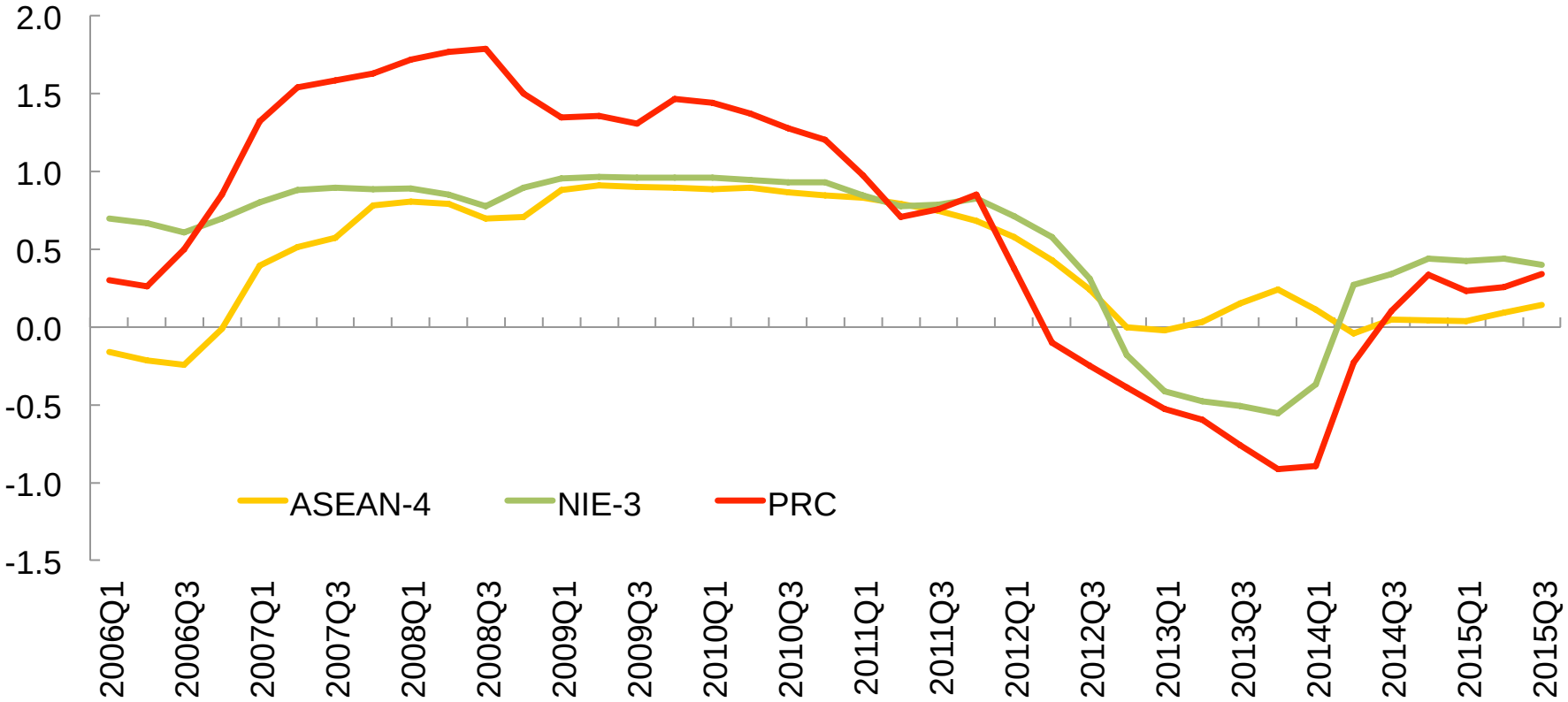


Note: ASEAN-4 includes Indonesia, Malaysia, Philippines, and Thailand. NIE-3 includes Hong Kong, China; Republic of Korea; and Singapore. Three-year moving correlations based on cyclical Hodrick-Prescott filtered seasonally-adjusted gross domestic product at constant prices.

Source: ADB calculations using data from Haver Analytics and national sources.

Growth of ASEAN+3 more correlated with Japan recently

ASEAN+3 Business Cycle Correlation with Japan



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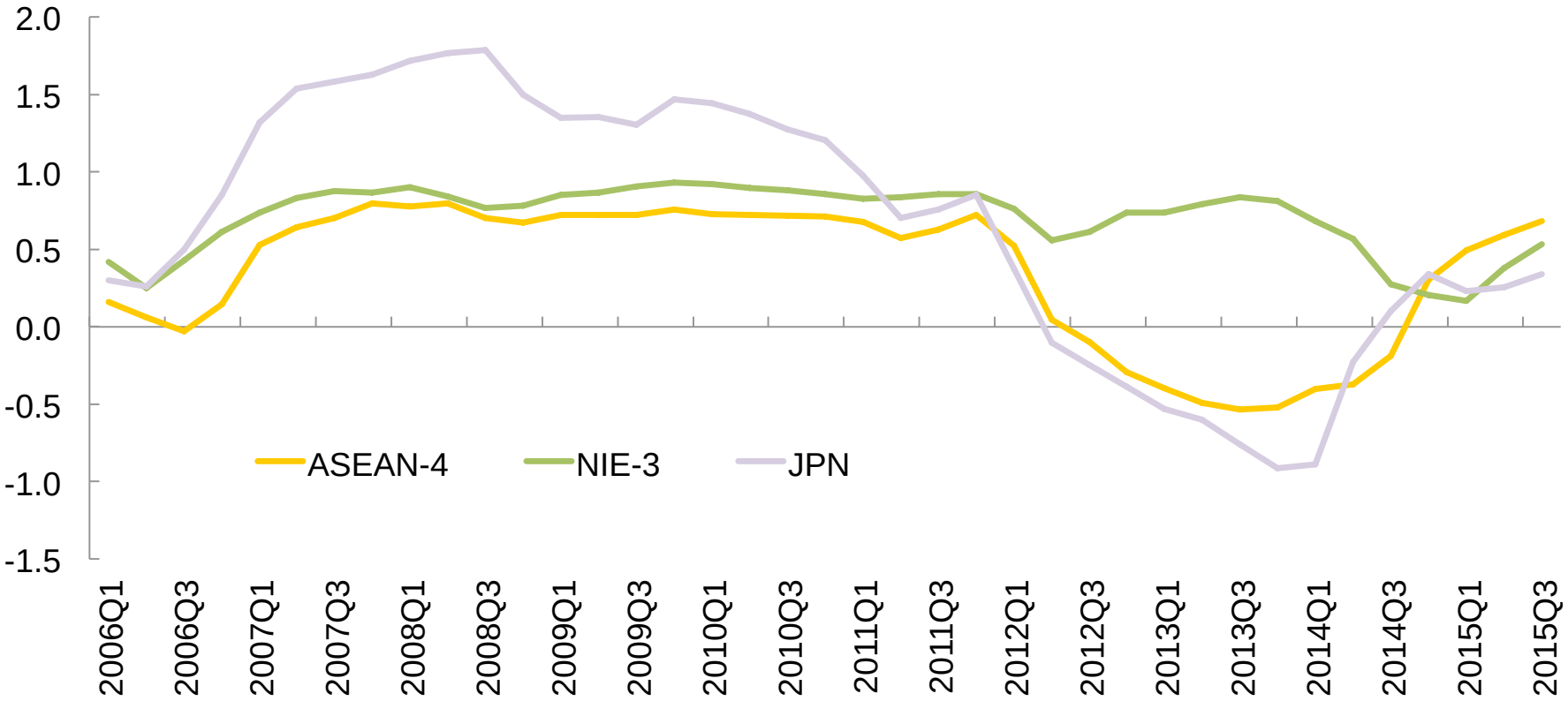
ADB

Growth of ASEAN+3 also more correlated with PRC recently

ASEAN+3 Business Cycle Correlation with the PRC



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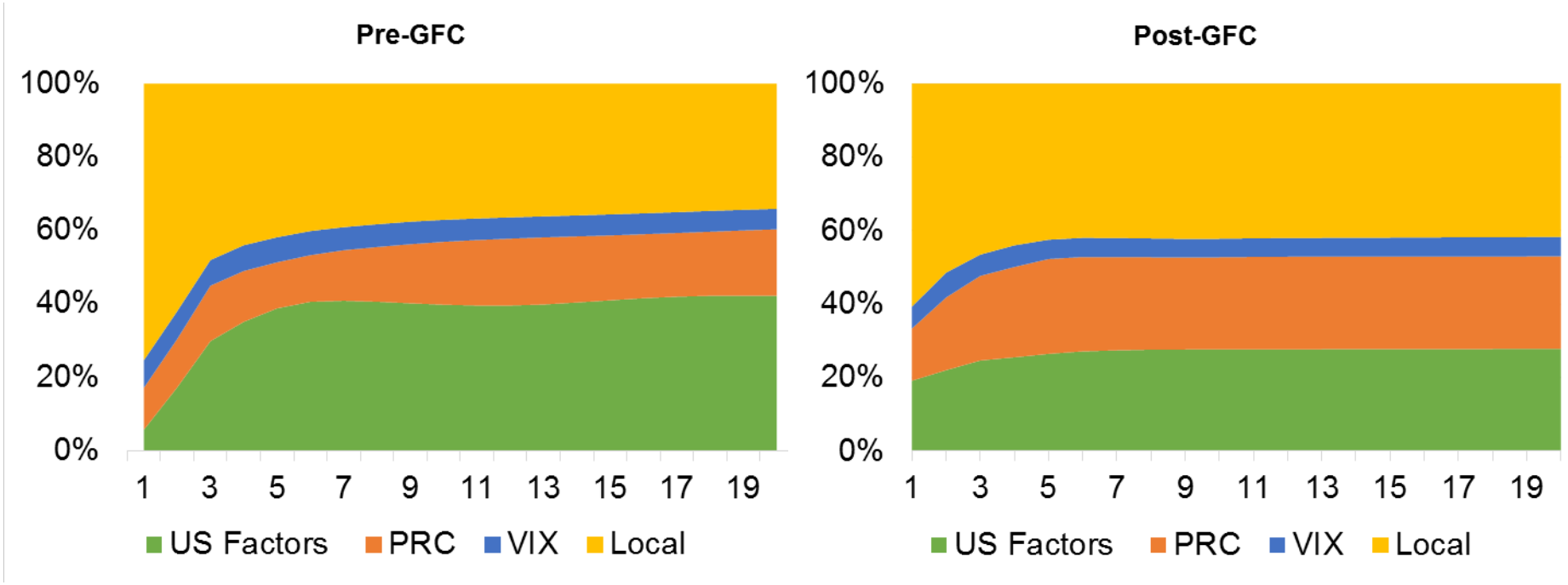
Source: ADB calculations using data from Haver Analytics and national sources.

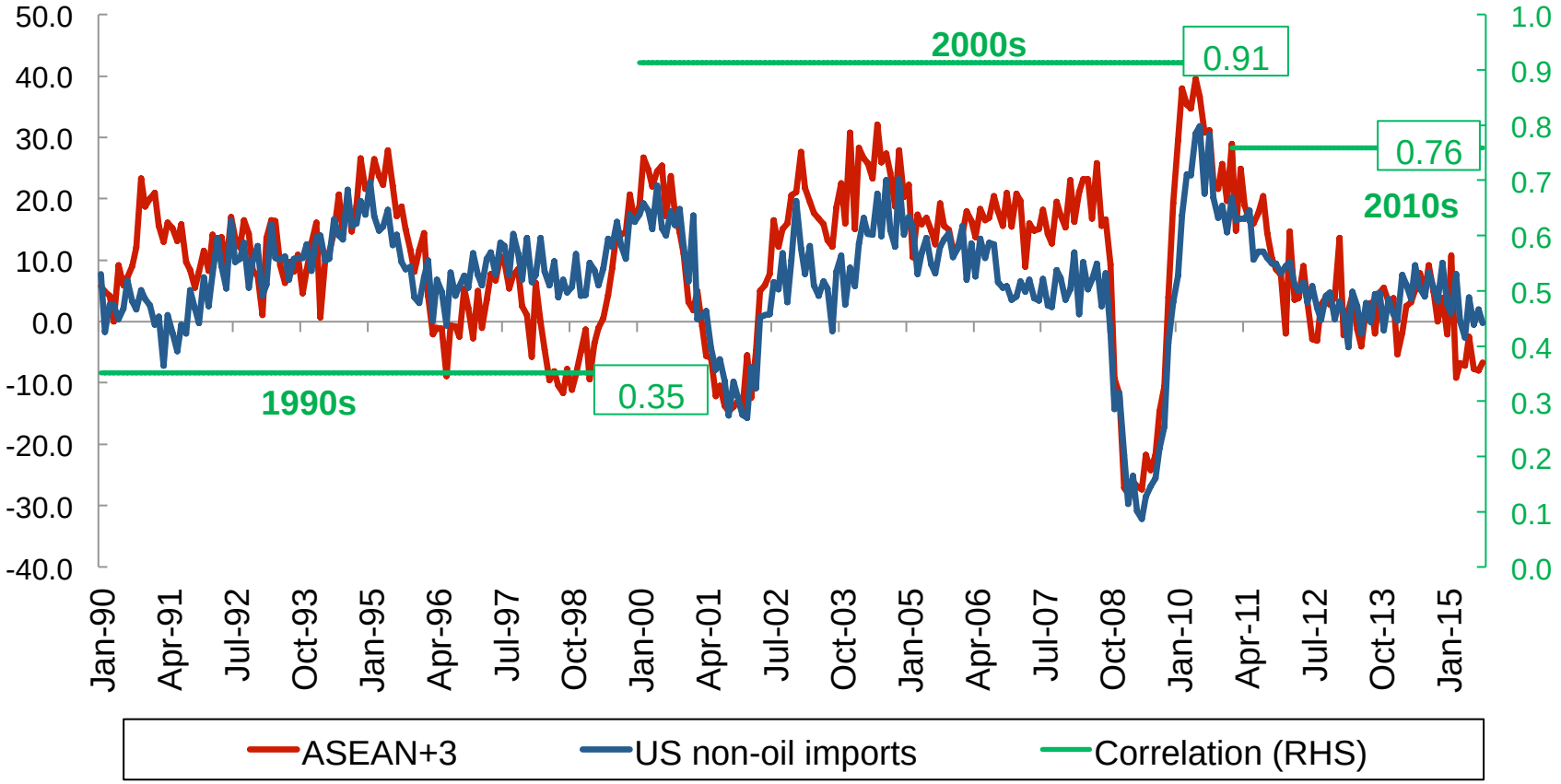
Asian economies more vulnerable to growth shock from PRC and their own domestic shocks

Share of Asian output variance due to external and local factors (%, x-axis = # of quarters)



Pre-GFC = 2001Q1 to 2008Q1; Post-GFC = 2009Q1 to 2015Q2. Average for sample economies.
Source: ADB calculations.

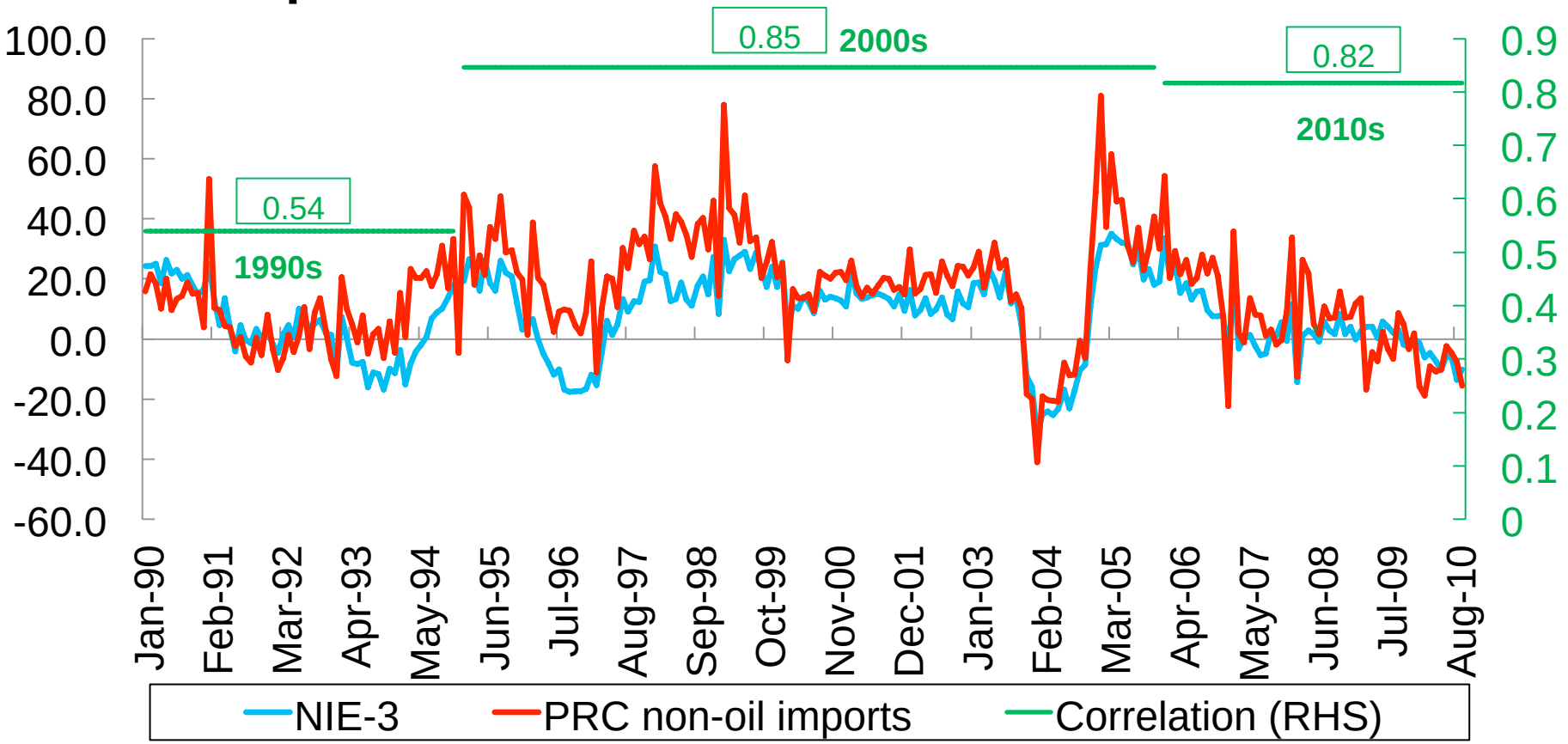
Correlation between growth in ASEAN+3 exports and US non-oil imports



Note: ASEAN+3 refers to ASEAN including PRC; Hong Kong, China; Japan; and Korea, Rep. of. US non-oil imports computed by subtracting imports of energy-related petroleum products and crude petroleum.
Source: ADB calculation using data from CEIC: (US Census Bureau) and *Direction of Trade Statistics,* International Monetary Fund (IMF).

ADB

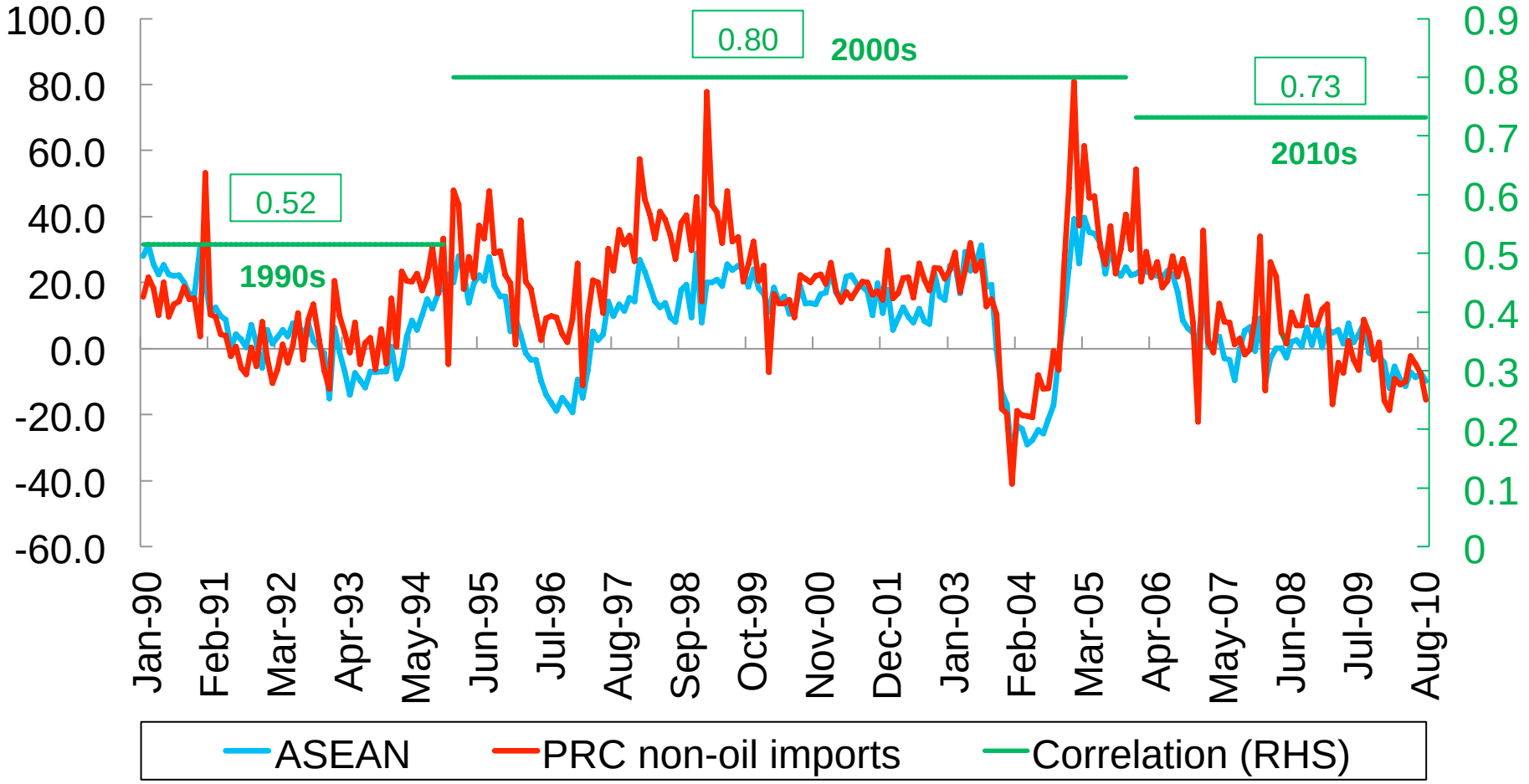
Correlation between growth in NIE-3 exports and PRC non-oil imports



NIE-3 = Hong Kong, China; Korea, Rep. of; and Singapore.
Note: non-oil imports computed by subtracting mineral fuel, lubricants, and related materials imports from the sum of total primary, manufactures, and commodities n.e.s based on SITC.

Source: ADB calculation using data from CEIC and *Direction of Trade Statistics,* International Monetary Fund (IMF).

Correlation between growth in ASEAN exports and PRC non-oil imports



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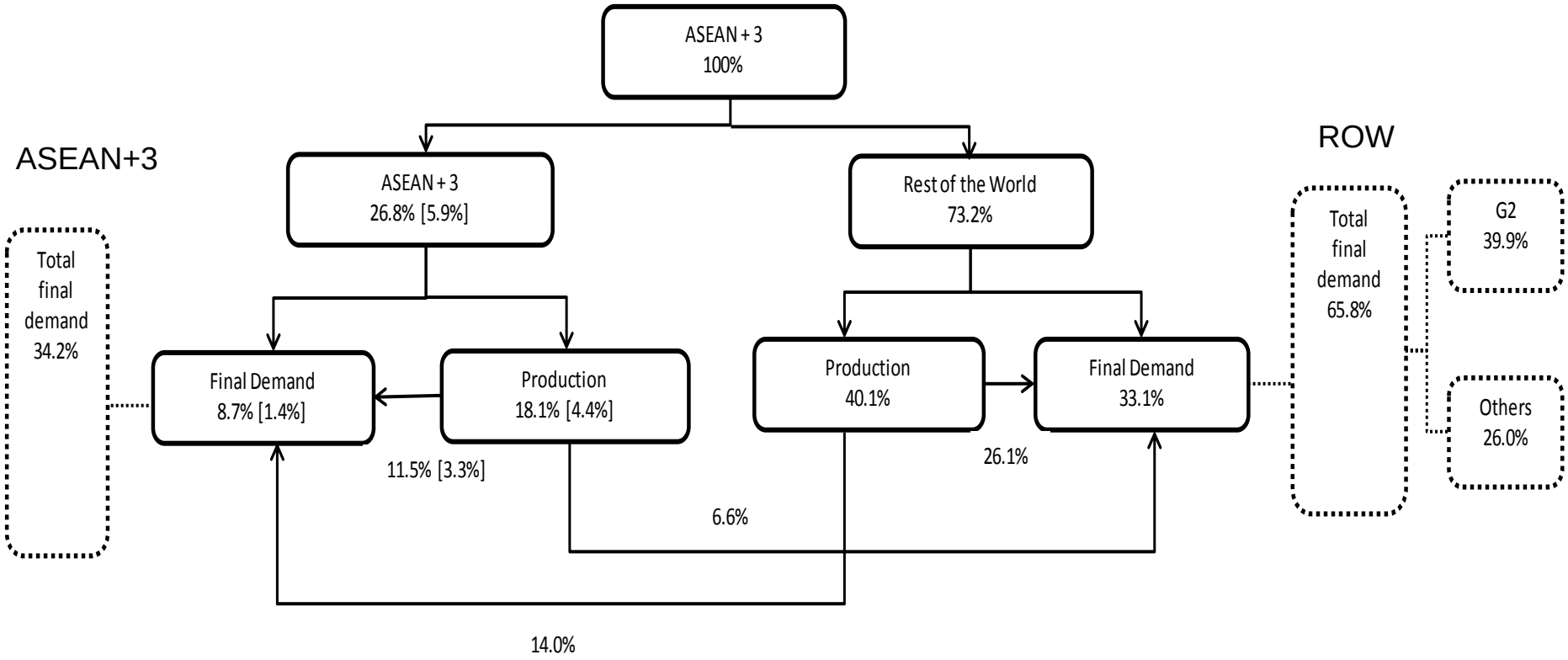
Value-Added Export Decomposition, 2000

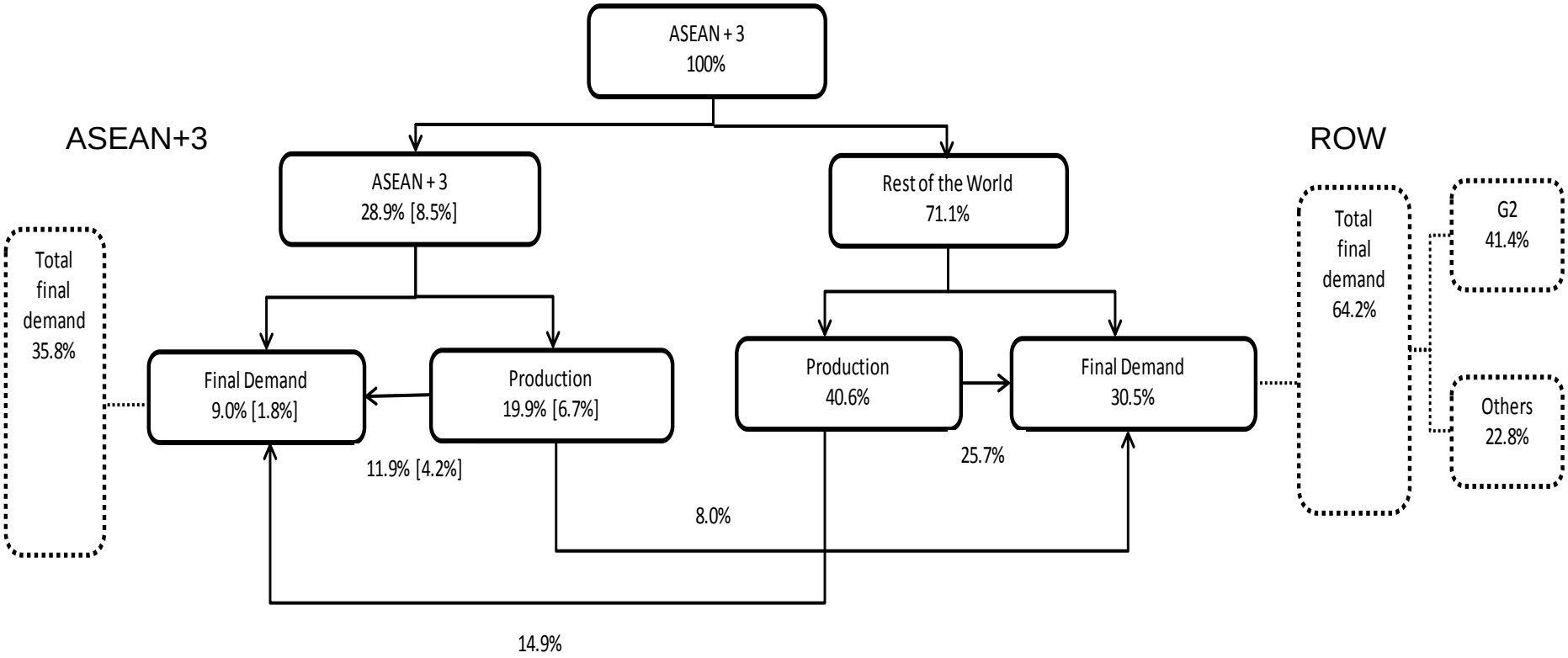


Value-added export decomposition = Domestic value-added + Returned domestic value

Source: Asia Regional Integration Center (ARIC) calculations using data from World Input-Output (IO) Tables and ADB Multiregional Input-Output tables (ADB-MRIO), and methodology from Z. Wang, S-J. Wei, and K. Zhu. 2014. Quantifying International Production Sharing at the Bilateral and Sectoral Levels. *NBER Working Paper No. 19677*. Cambridge, MA: NBER.

Note: Except for Bangladesh, Malaysia, the Philippines, Thailand and Viet Nam IO tables, which were constructed by ADB, the rest were sourced from the World Input-Output Database (WIOD). While the WIOD and ADB IO tables have been constructed in a clear conceptual framework on the basis of officially published input-output tables in conjunction with national accounts and international trade statistics, level numbers are likely to remain different from those officially released by the respective economies.

Value-Added Export Decomposition, 2005



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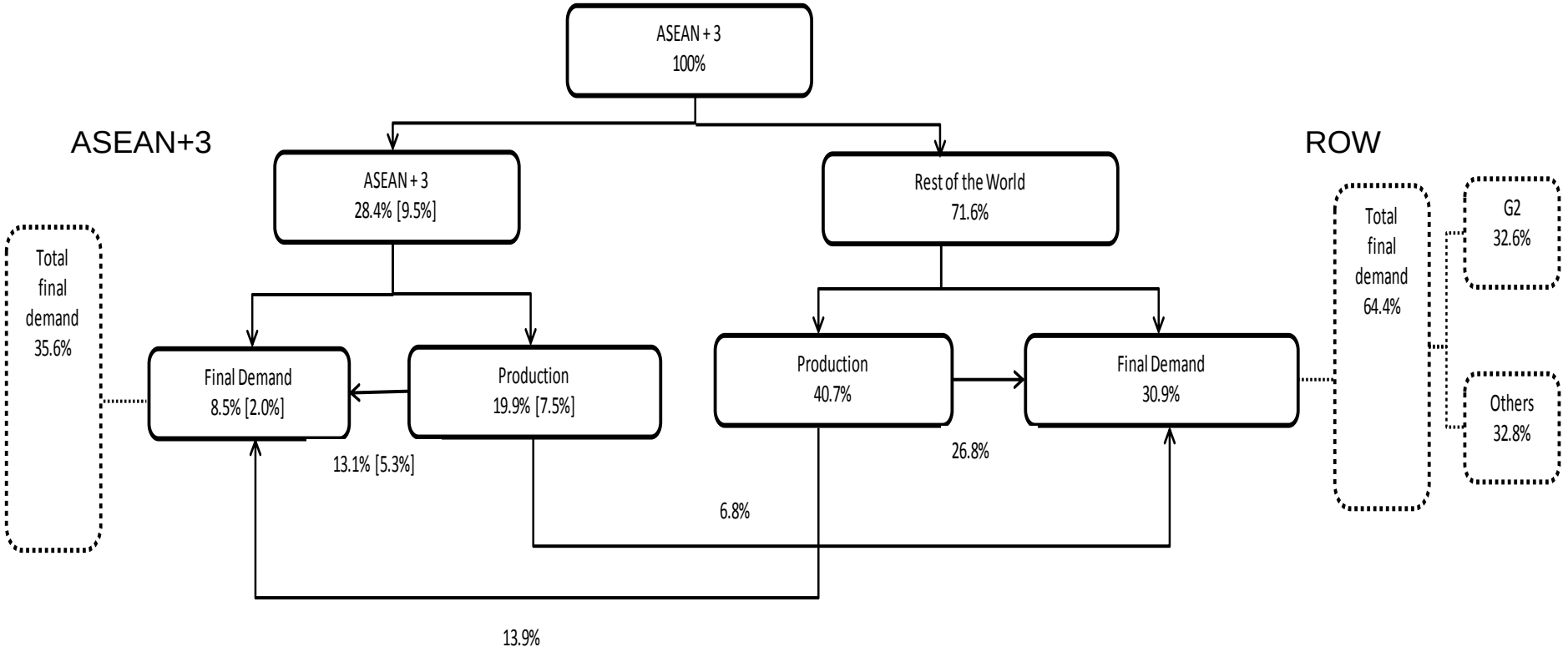

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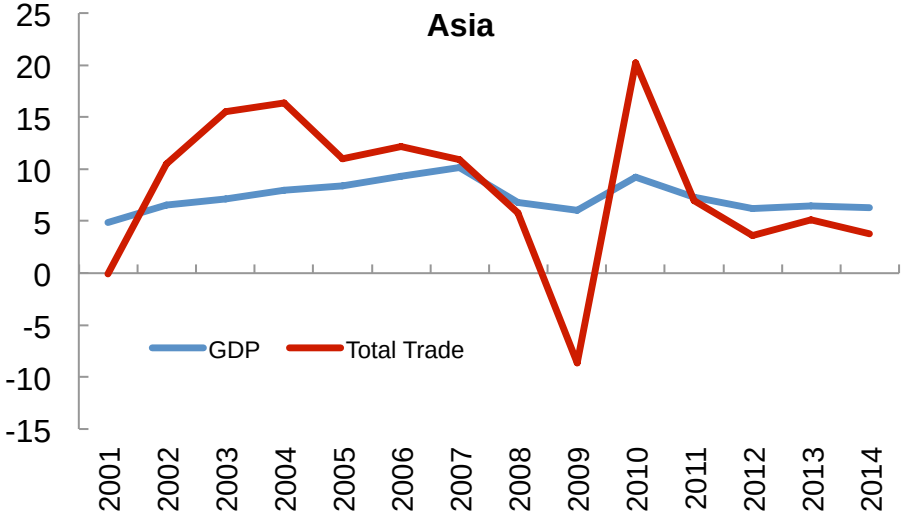
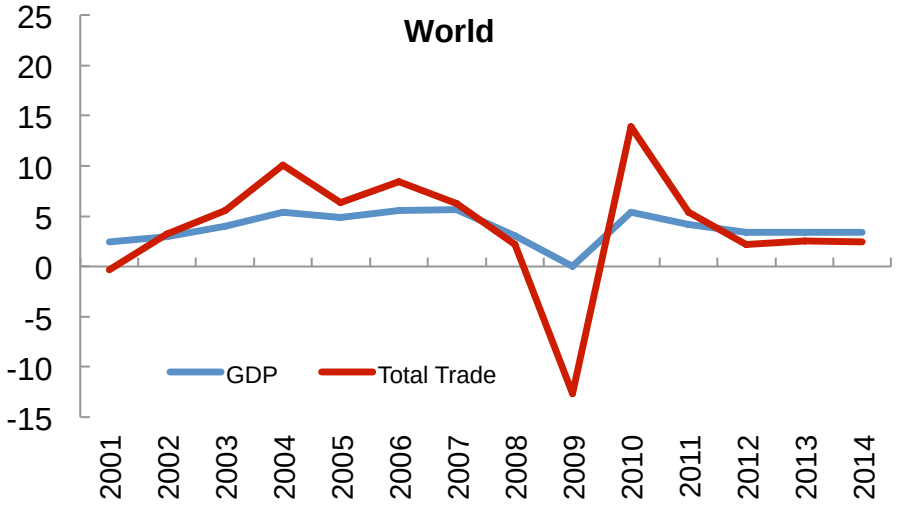
Trade slowdown and PRC factors

Asia's overall trade growth slows

Trade and GDP Growth (%)

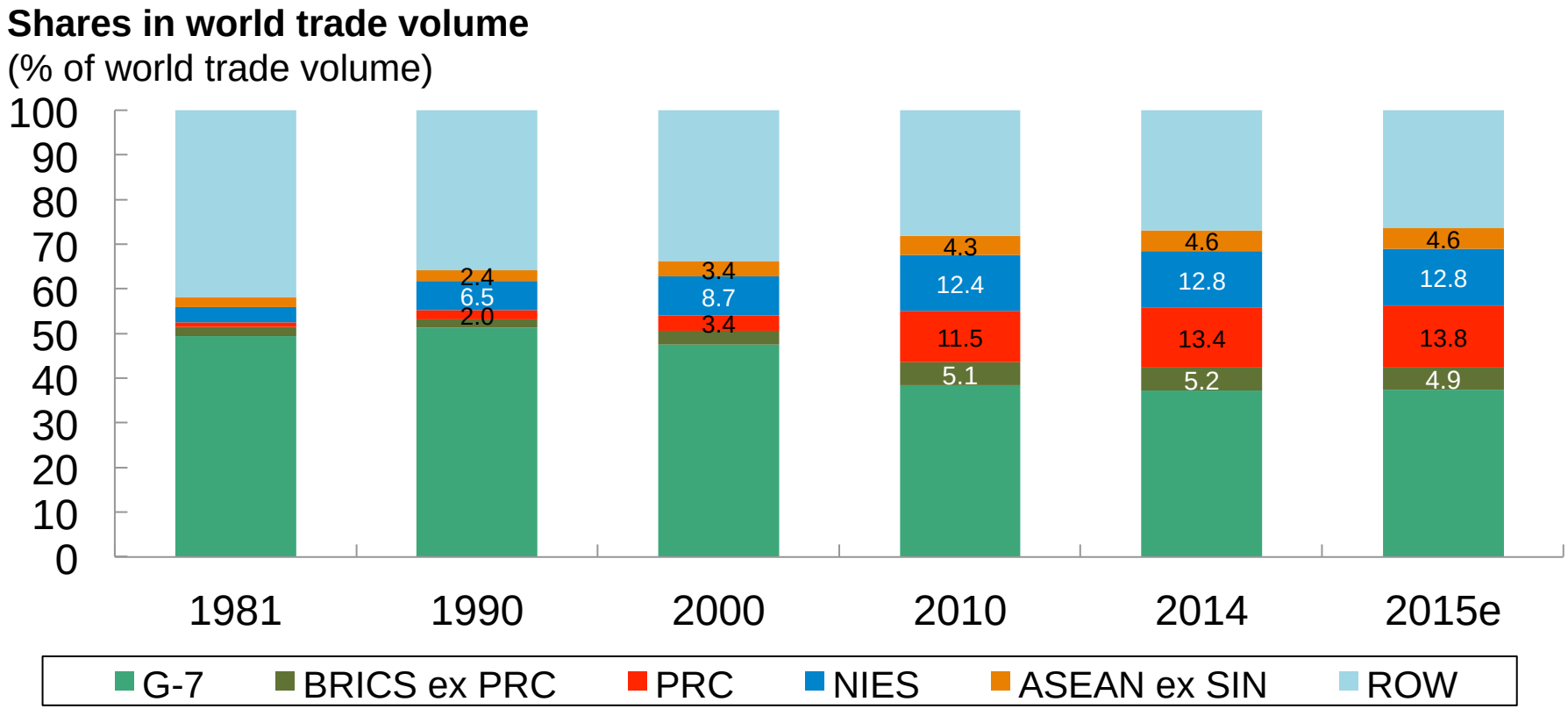




Fall in trade growth due to:

- Sluggish demand recovery in advanced economies.
- Growth moderation in PRC.
- Slower pace of expansion in global and regional value chains.

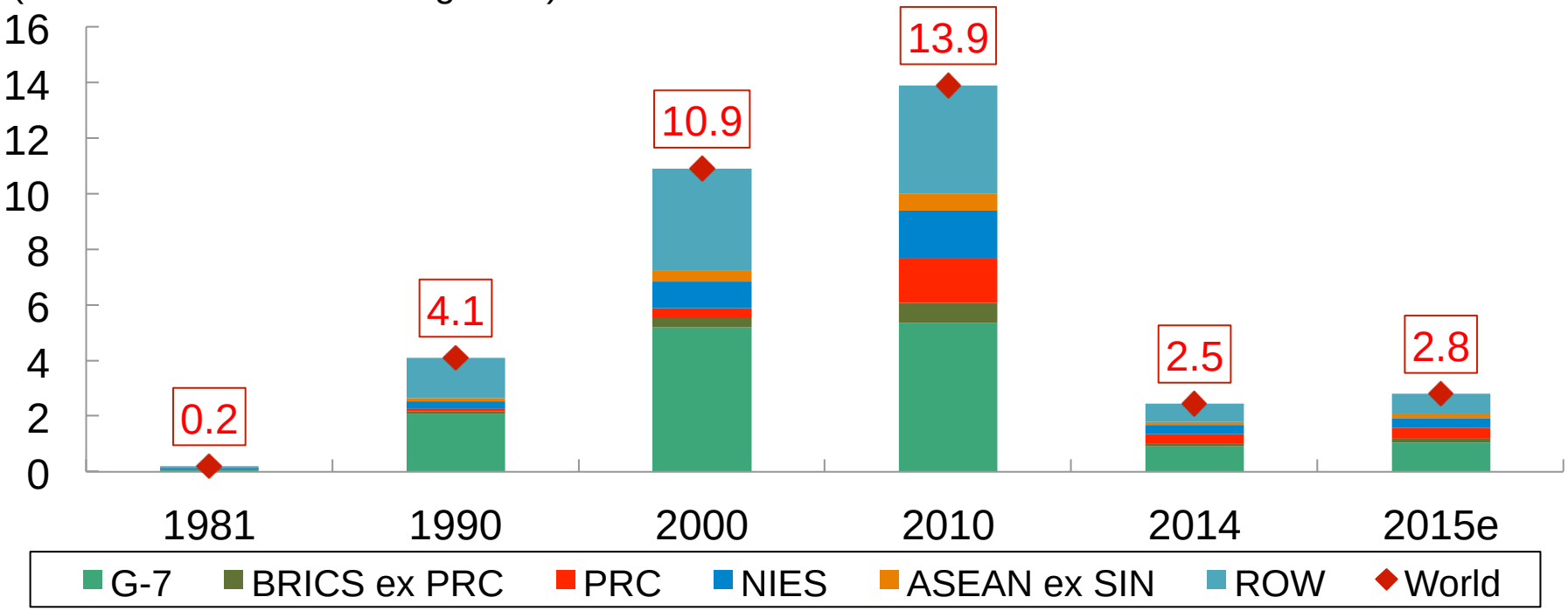
G-7 share is declining while PRC share rising



G-7 = UK, US, France, Germany, Japan, Italy, and Canada.
Note: Trade volume is estimated by using annual trade volume growth rates on 2001 trade values and extending the series in the specified years. 2015 trade estimates using 3-year compounded average growth rate.
Source: ADB calculations using data from World Trade Organization Trade Statistics.

G-7 and PRC contribute around a half of world trade growth

Contribution to world trade volume growth
(% of world trade volume growth)



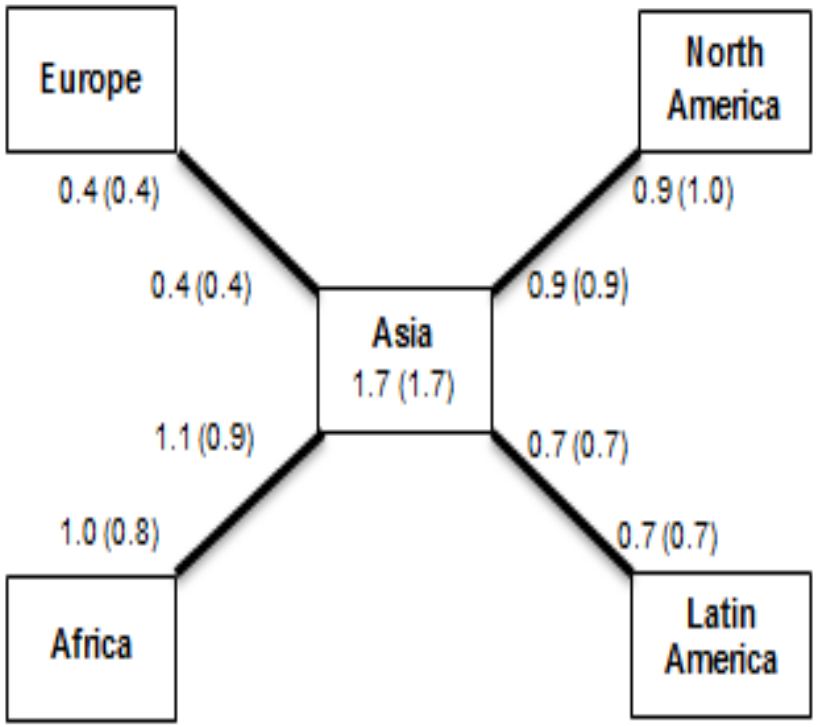
G-7 = UK, US, France, Germany, Japan, Italy, and Canada.
Note: Trade volume is estimated by using annual trade volume growth rates on 2001 trade values and extending the series in the specified years. 2015 trade estimates refers to WTO's latest forecast last September 2015.
Source: ADB calculation using data from WTO Trade Statistics.

Significant trade links within and across subregions

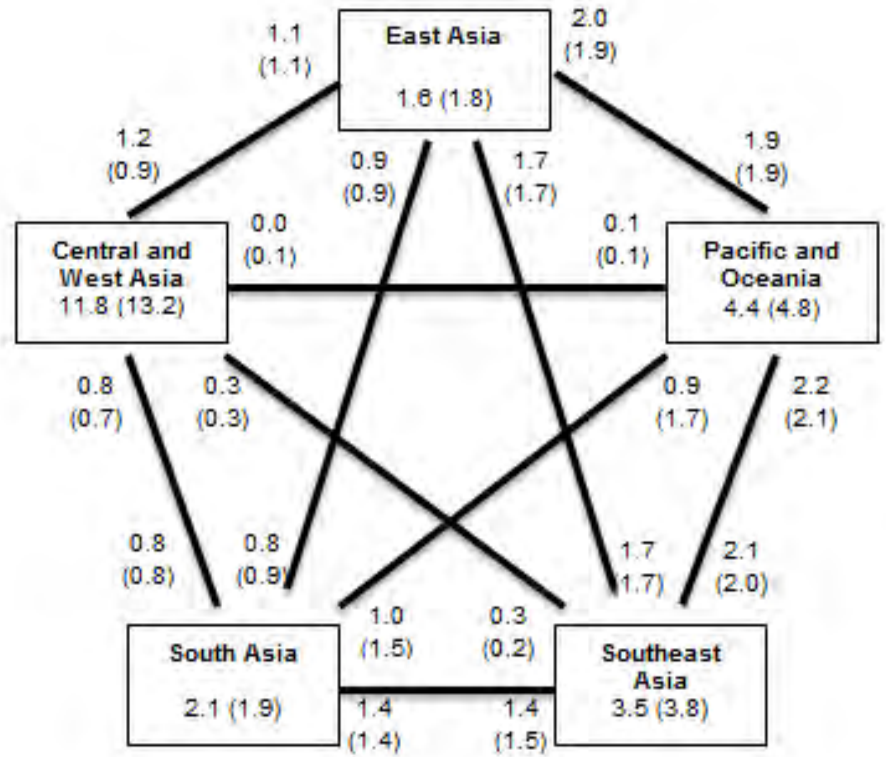
Gravity Model Results

	Central Asia	East Asia	South Asia	Southeast Asia	The Pacific & Oceania
Intrasubregional trade					
All goods	4.3**	3.3**	0.9**	4.3**	0.7
Capital	3.7**	1.2**	1.7**	2.5**	0.2
Consumption	4.5**	2.5**	1.1**	3.6**	-0.5
Intermediate	3.4**	3.7**	0.6	5.0**	-0.2
Intersubregional trade					
All goods	0.7*	0.6*	3.8**	0.8**	1.7**
Capital	0.0	0.1	0.7	0.4	1.0**
Consumption	0.8*	0.8**	3.5**	0.7*	2.2**
Intermediate	-0.1	-0.1	3.8**	0.4	0.7*

Asia's Trade Linkage, 2014
(Numbers in parentheses = 2010)

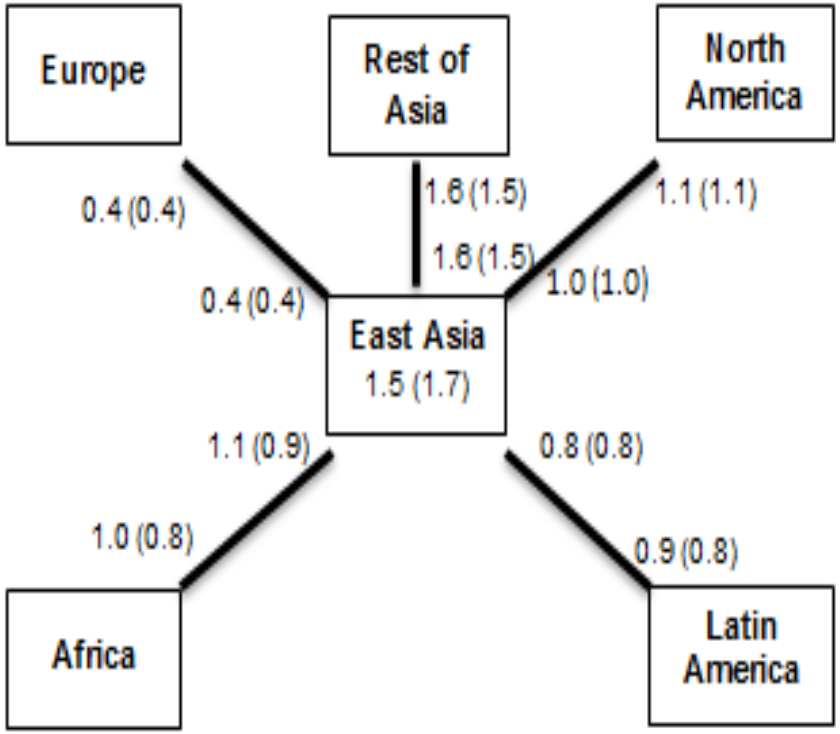


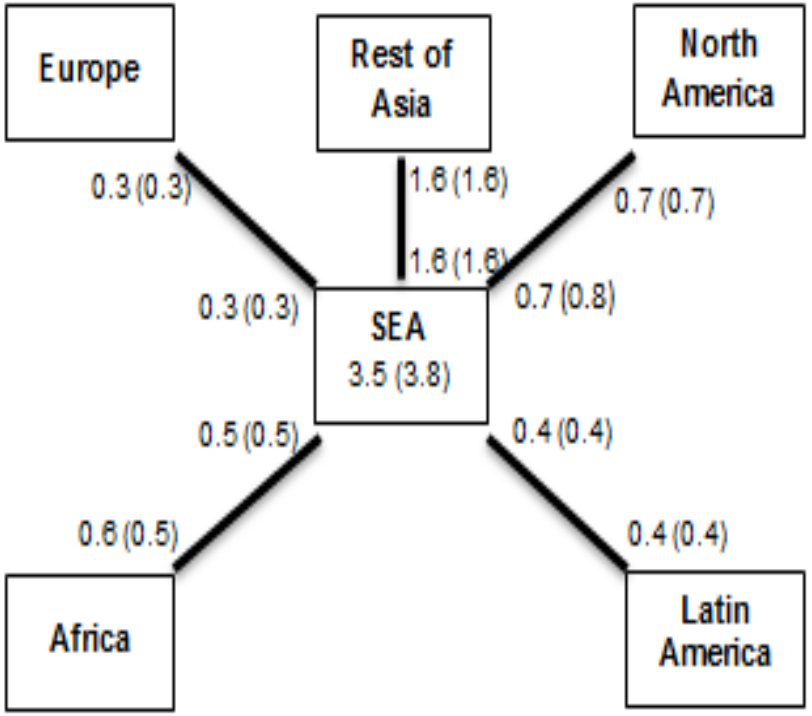
Asian Subregional Trade Linkages, 2014
(Numbers in parentheses = 2010)



Note: Based on trade intensity (or trade bias), which is the ratio of the trading partner's share to a country/region, and the share of world trade with the same trading partner. It is calculated as (*Tij*/*Ti)*/(*Tj*/*Tw*), where *Tij* is the dollar value of total trade of i with *j*; *Ti* is the dollar value of total trade of i with world; *Tj* dollar value of total trade of *j* with world; and *Tw* total world trade.
Source: ADB calculation using data from *Direction of Trade Statistics,* International Monetary Fund.

Trade Links with the rest of the World—East Asia and Southeast Asia, 2014
(Numbers in parentheses = 2010)





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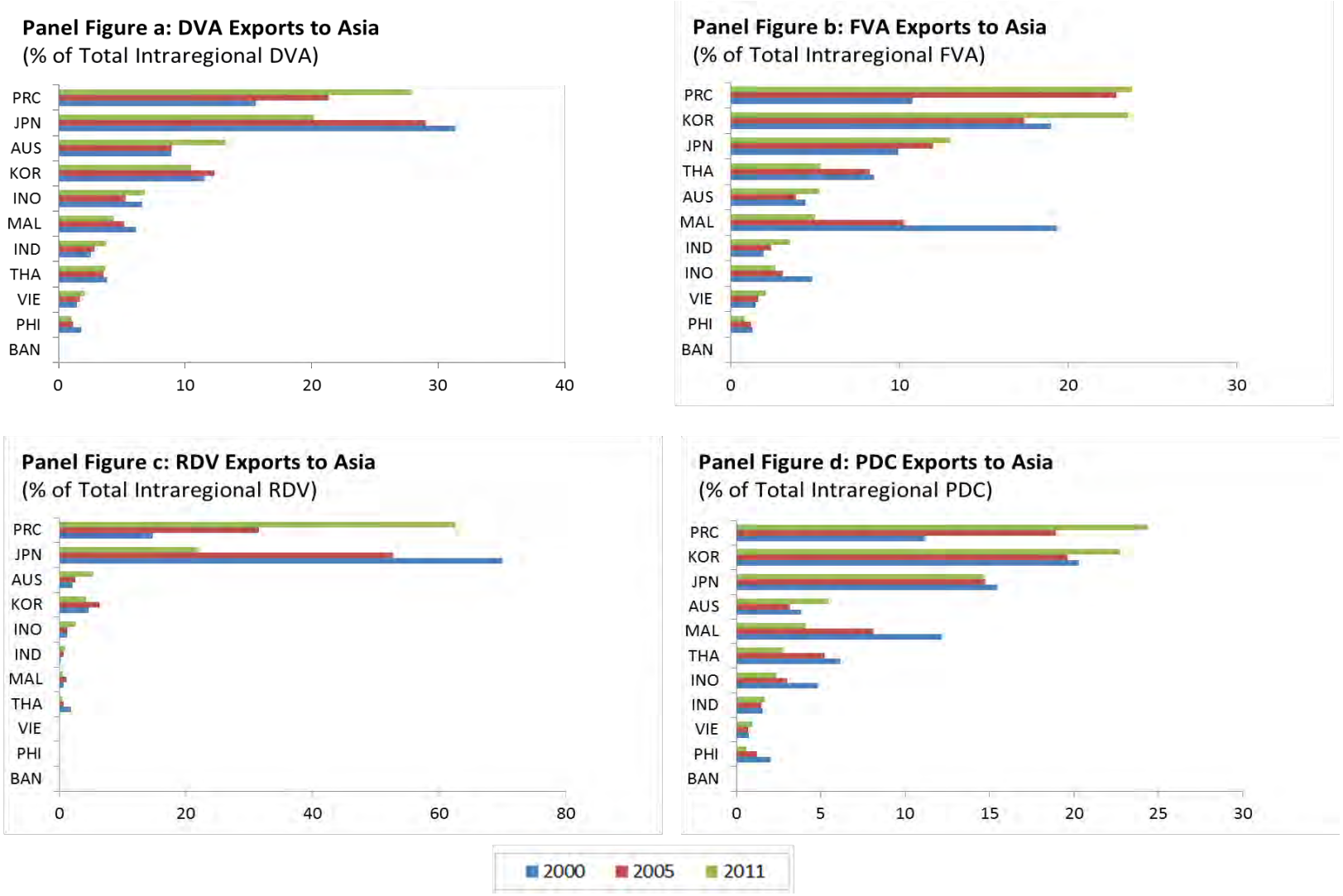
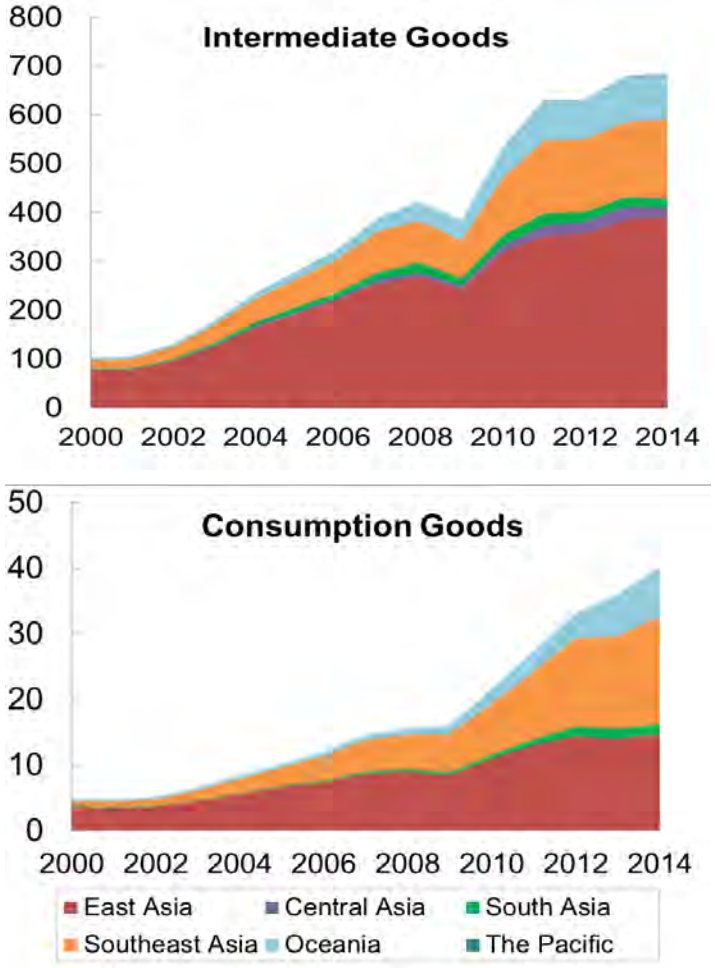
Regional value chains are deepening



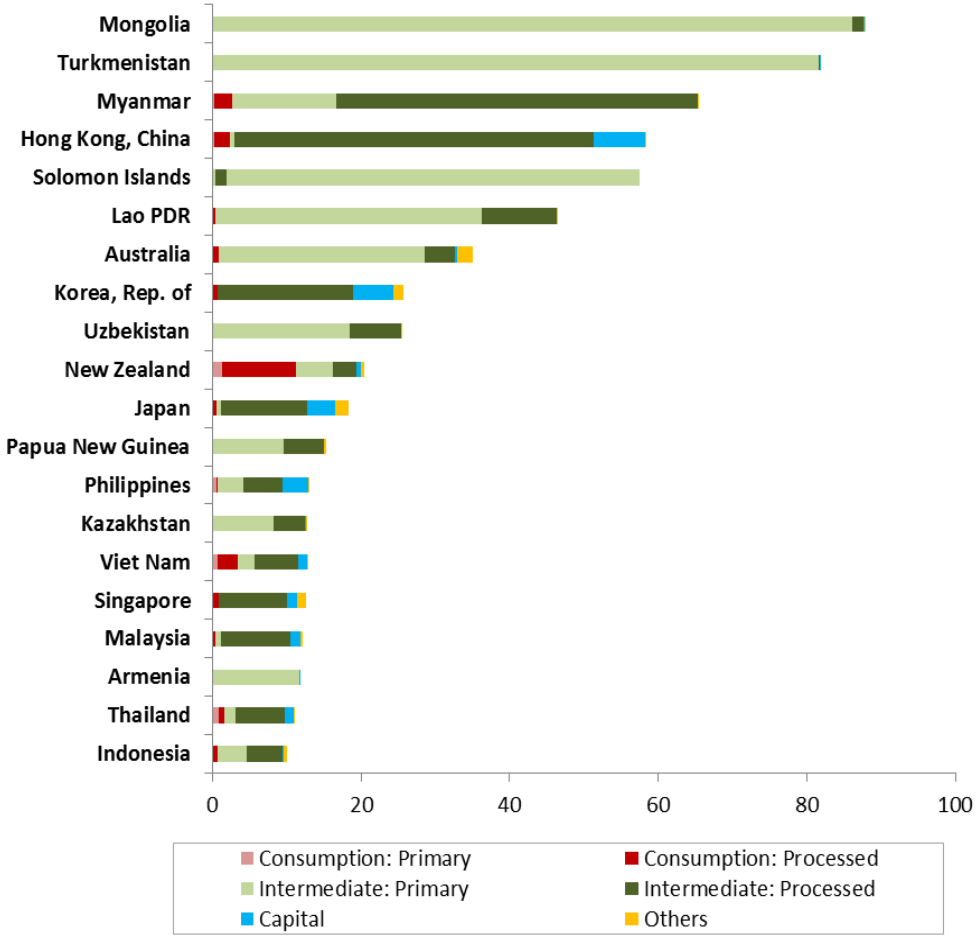
DVA = domestic value added, FVA = foreign value added, RDV = returned domestic value added, PDC = pure double counting component.

PRC's structural transformation presents both challenges and opportunities

PRC's imports from Asia ($ billion)

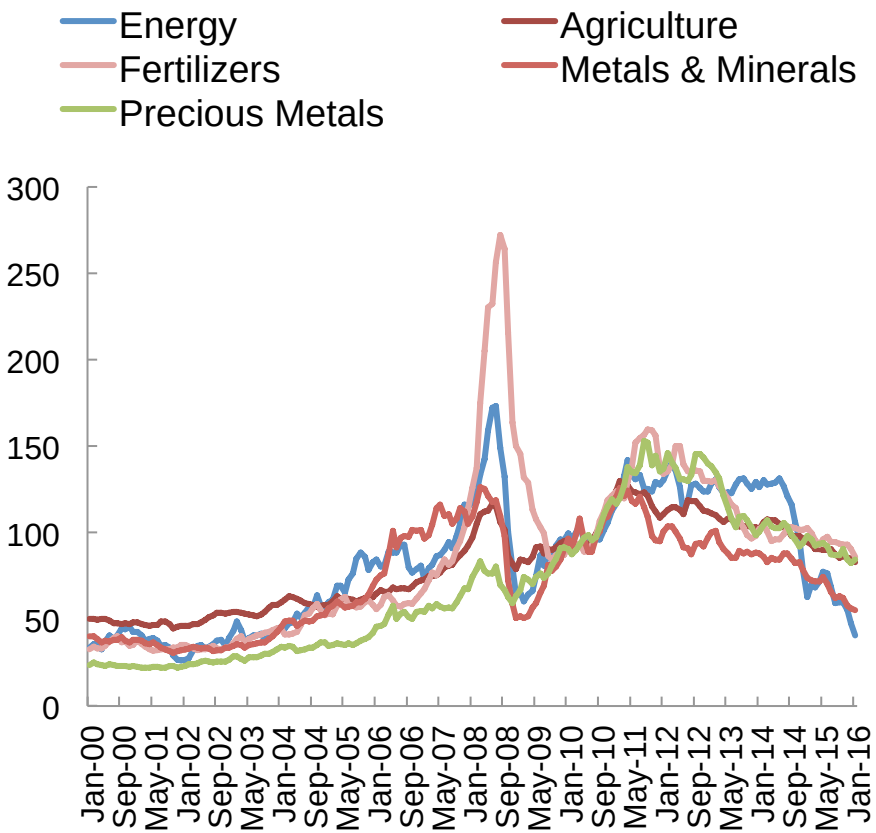


Top 20 Asian Exporters to the PRC
(% of country's total exports, 2014)



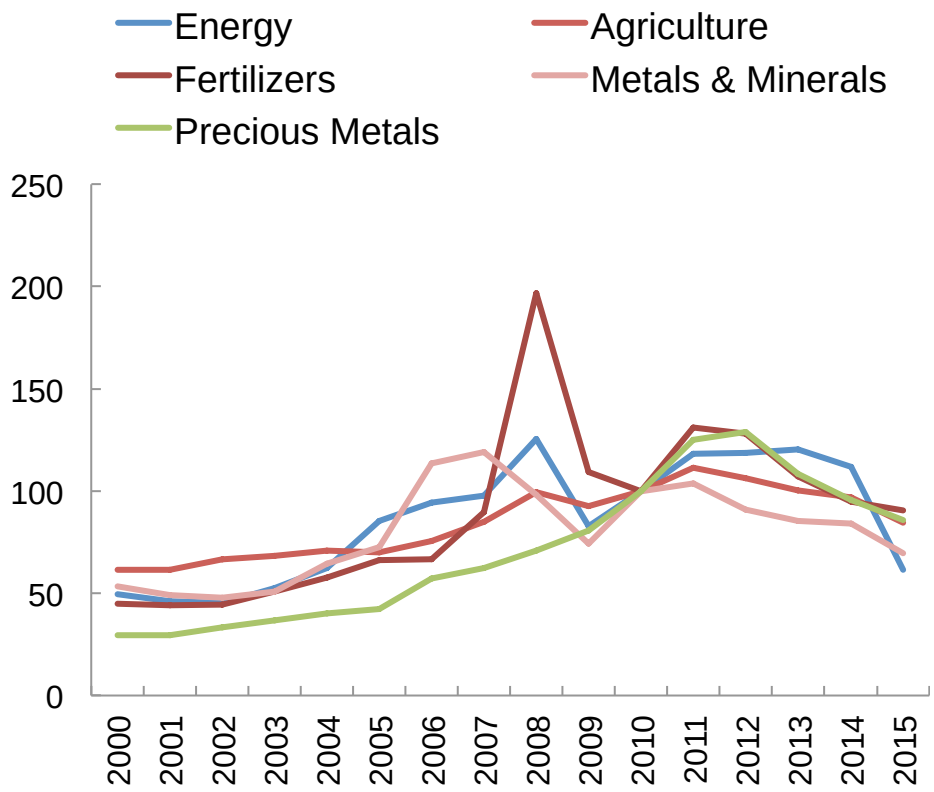
Commodity prices have declined (again) since 2012

Commodity Prices
(nominal monthly, 2010=100)



Note: Monthly indexes based on nominal US dollars, 2010=100.
Source: World Bank Commodity Price Data (the Pink Sheet)

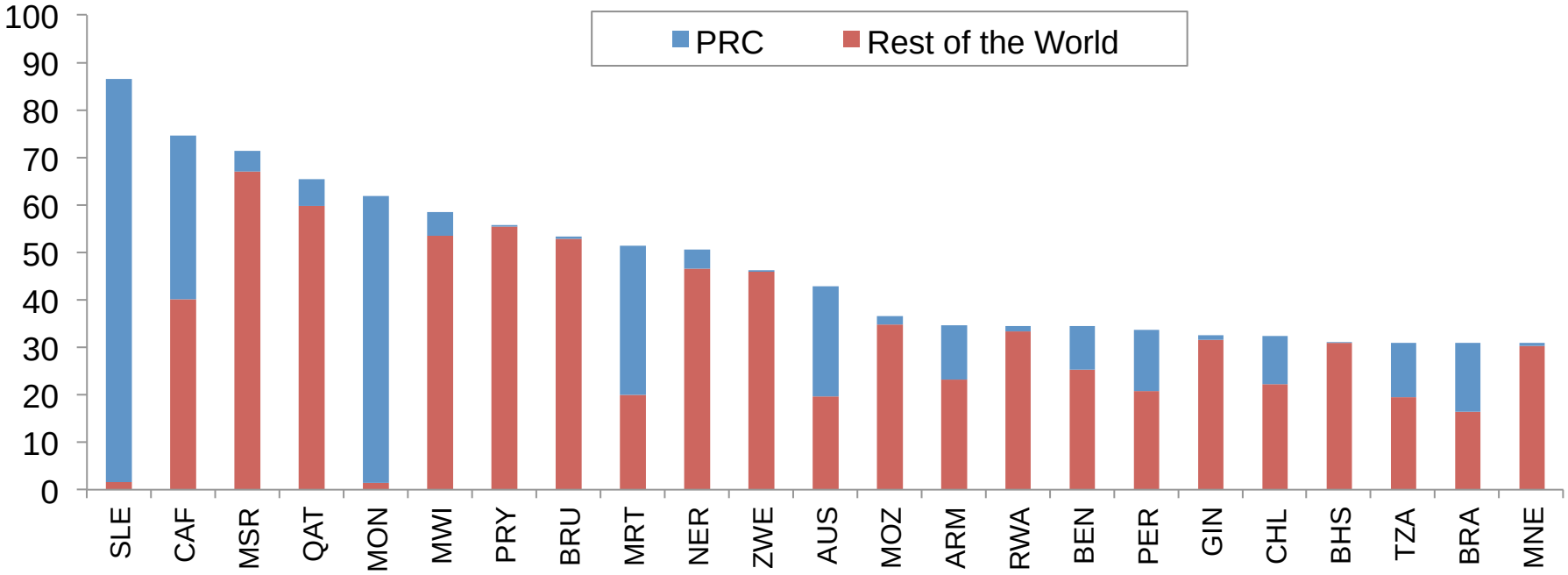
Real Commodity Prices
(2010=100, annual, based on 2005 US$)



Note: Annual indexes, 2010=100, 1960 to present, real 2005 US dollars.
Source: World Bank Commodity Price Data (The Pink Sheet).

Some countries heavily dependent on commodity exports are hit by “double whammies”

Top Commodity Exporters' Commodity Export Share – 2014
(% of economy's total exports)



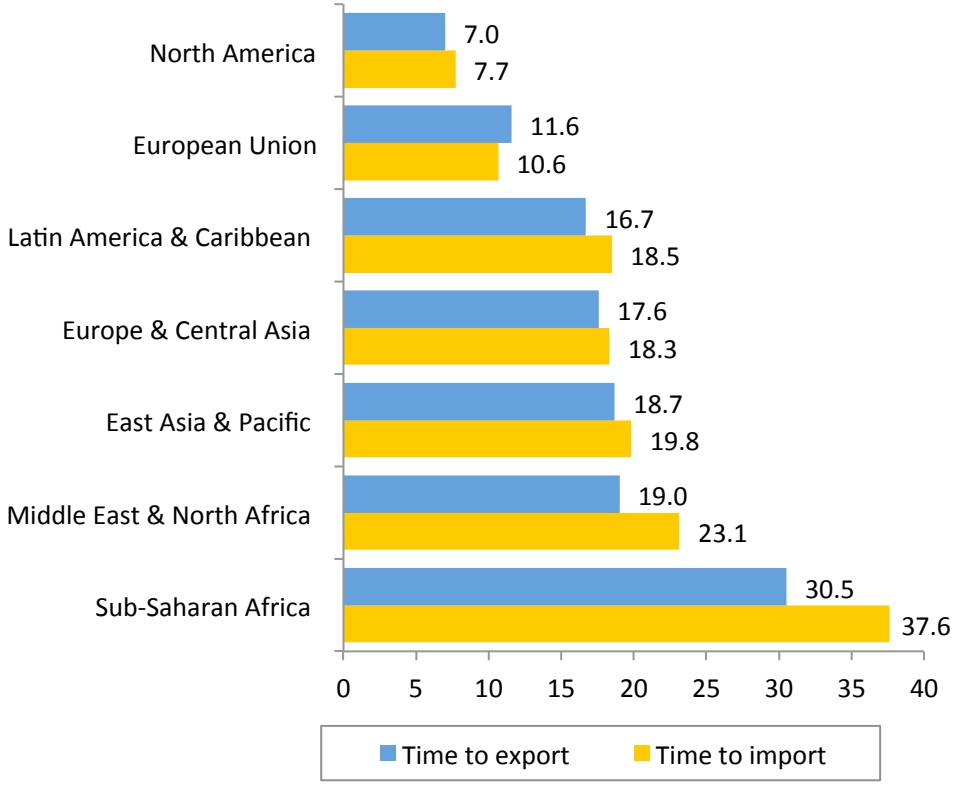
ARM=Armenia; AUS=Australia; BEN=Benin; BHS=Bahamas; BRA=Brazil; BRU=Brunei Darussalam; CAF=Central African Rep.; CHL=Chile; GIN=Guinea; MNE=Montenegro; MON=Mongolia; MOZ=Mozambique; MRT=Mauritania; MSR=Montserrat; MWI=Malawi; NER=Niger; PER=Peru; PRY=Paraguay; QAT=Qatar; RWA=Rwanda; SLE =Sierra Leone; TZA=United Rep. of Tanzania; ZWE=Zimbabwe.

Note: Includes economies with commodity exports as % of total exports of more than 30%. Data based on SITC Rev 3. Commodity items include primary consumption goods (primary food and beverages for household consumption) and selected intermediate goods (primary food and beverages for industry, primary industrial supplies, and primary and processed fuels and lubricants) as defined under Broad Economic Categories.

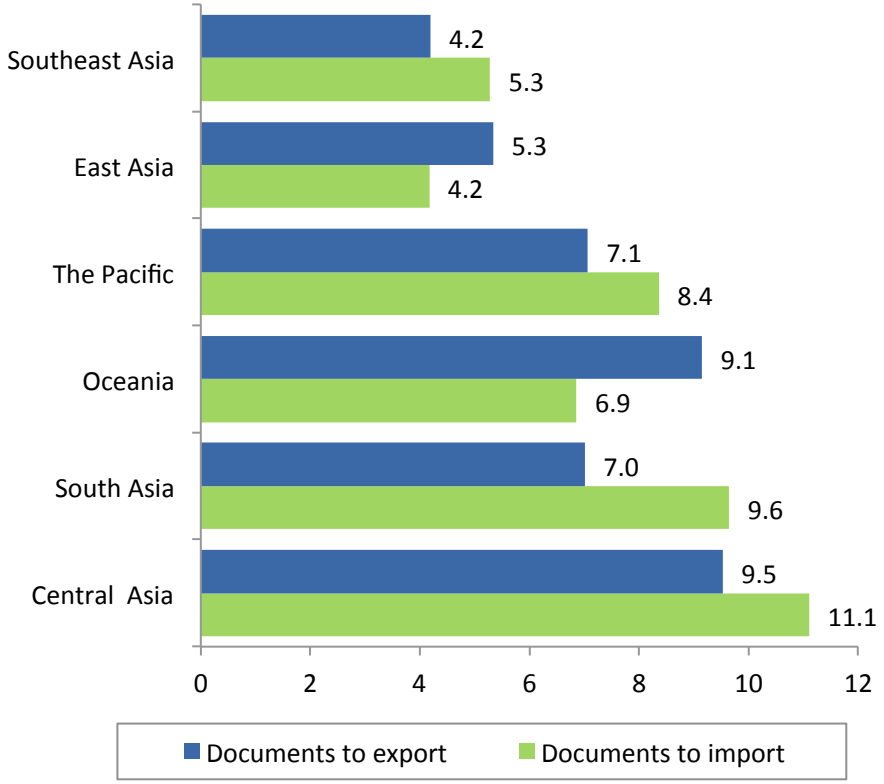
Source: ADB calculations using data from UN Commodity Trade Database.

Overall trade costs need to be lowered

Time to Export and Import by Region (2014, days)



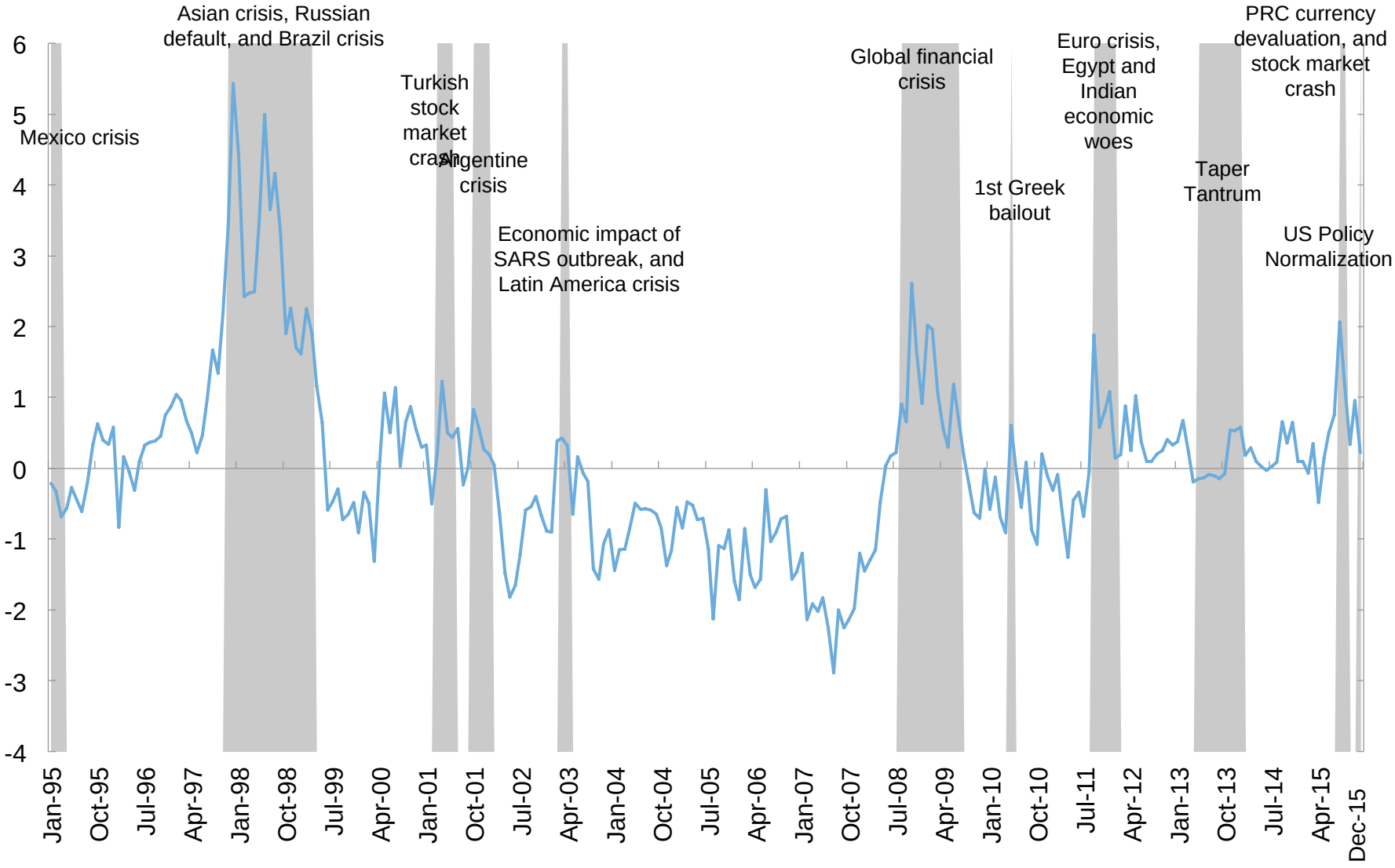
Number of Documents to Export and Import in Asia and the Pacific by Subregion (2014)



Source: World Development Indicators, World Bank.

Financial integration and volatility

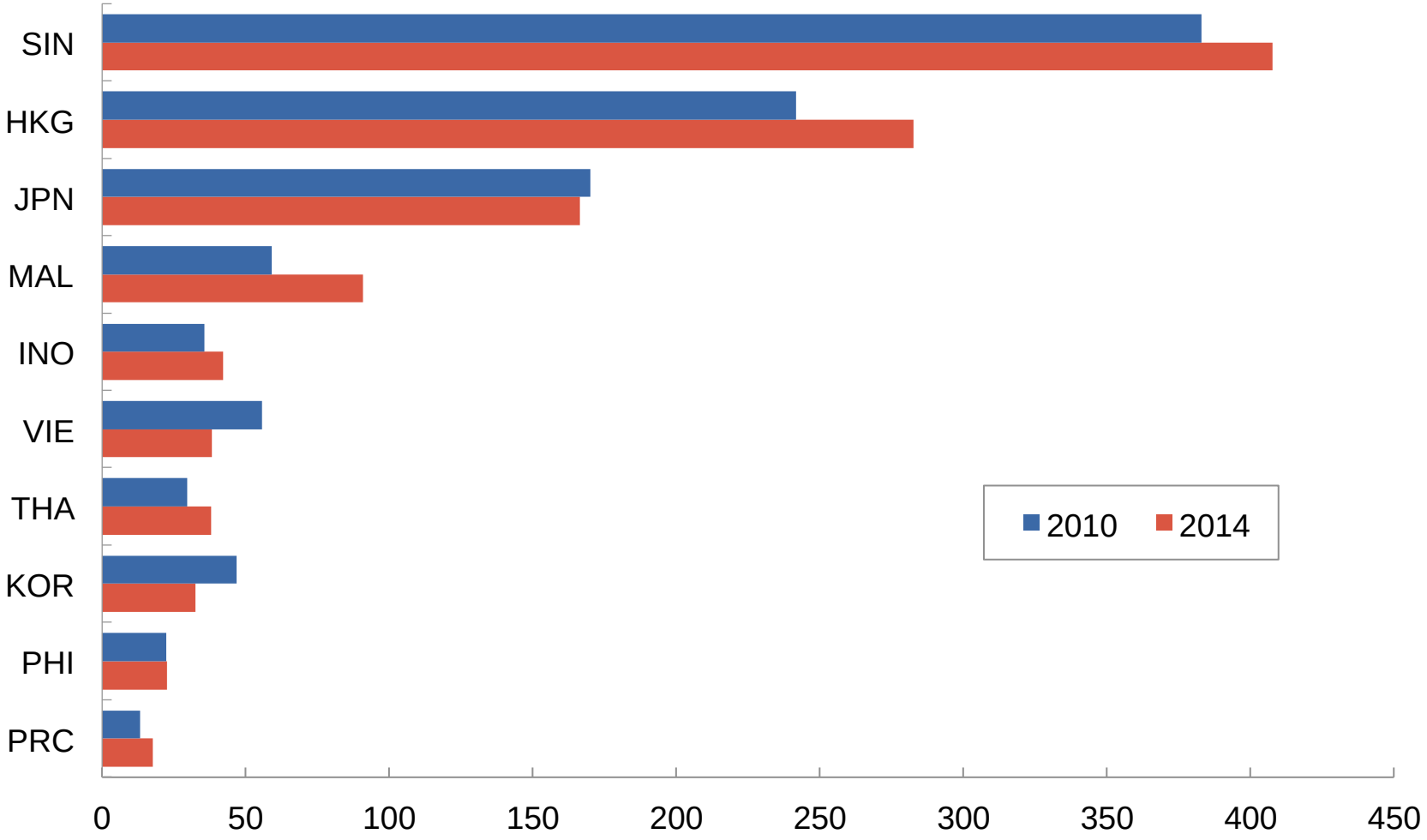
Financial Stress Index—ASEAN+3



Note: Based on principal components analysis. Includes People's Republic of China; Hong Kong, China; Indonesia; Japan; Rep. of Korea; Malaysia; Philippines; Singapore; Thailand; Viet Nam
Source: ADB staff calculation using Bloomberg, Yahoo! Finance and CEIC

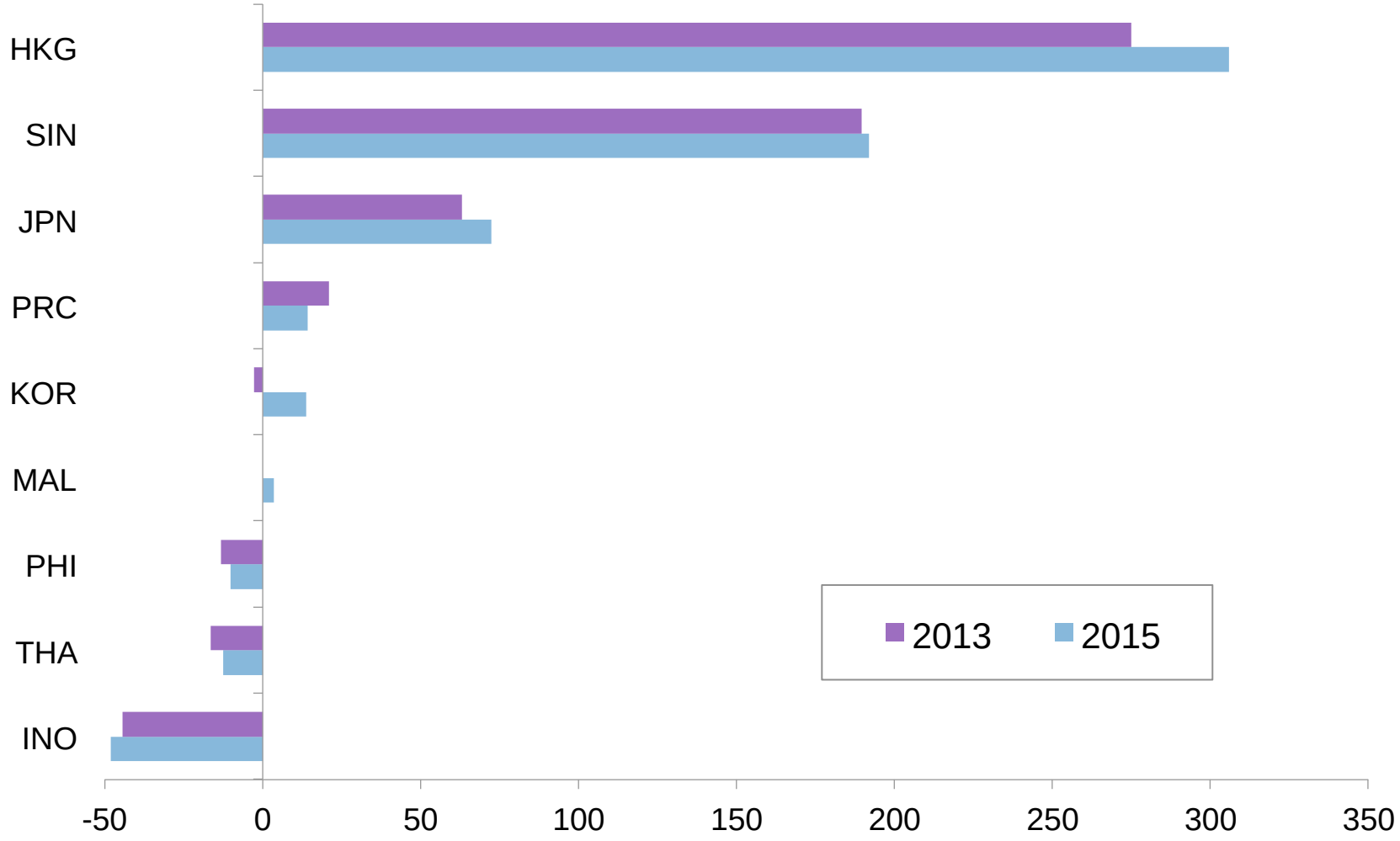
ADB

Short-term external debt (% of reserves)



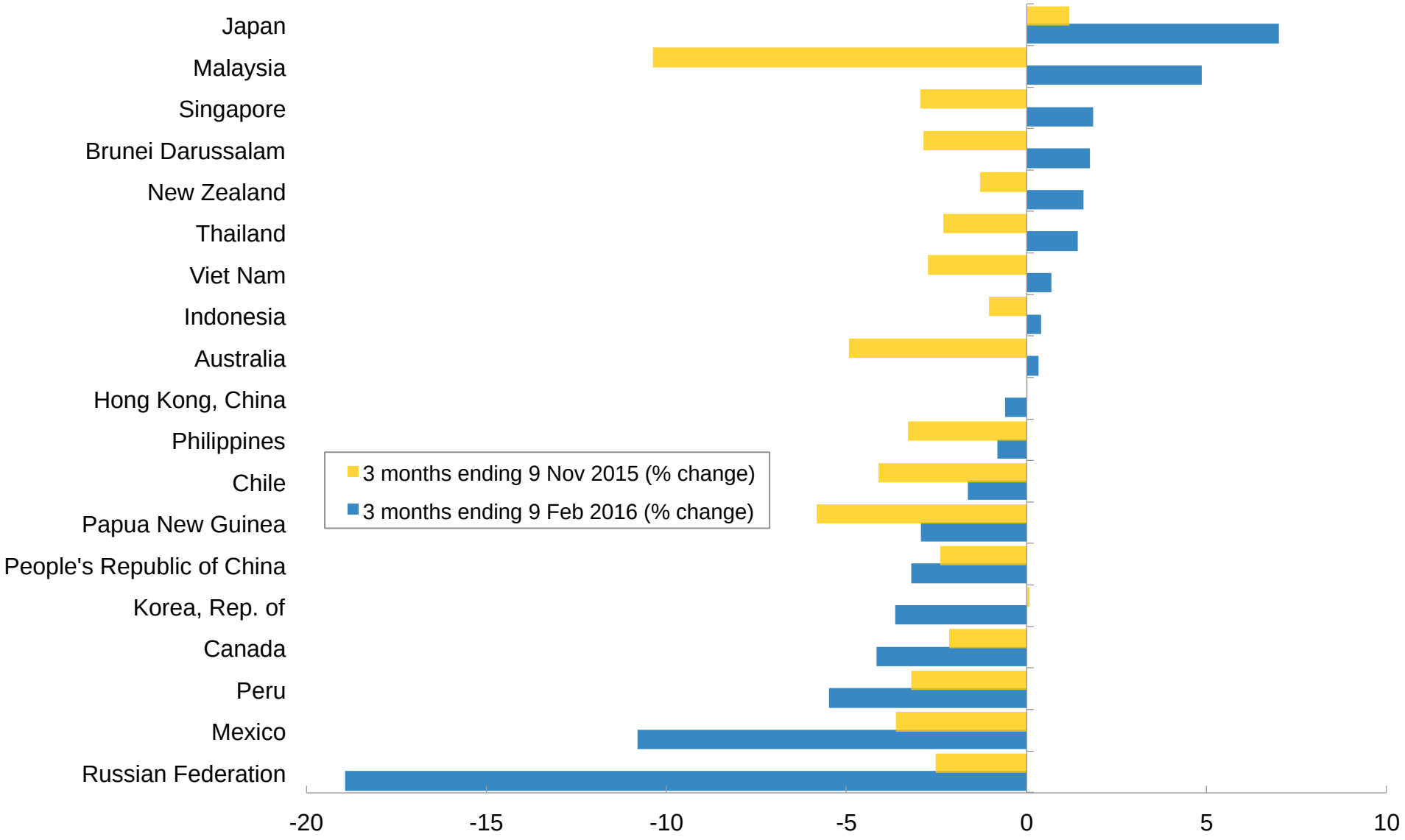
Note: Data used for 2010 for PHI is 2012 and 2011 for THA.
Source: ADB calculations using data from International Financial Statistics, IMF; and national sources.

Net International Investment Position (% of GDP)



Note: Based on BPM-6 data (assets less liabilities). Includes foreign direct investment, portfolio investment, other investment, and foreign reserves. 2015 refers to end Q3-2015 for all, except for INO (Q1-2015) and MAL (Q2-2015).
Source: ADB calculations using data from International Financial Statistics, IMF; and national sources.

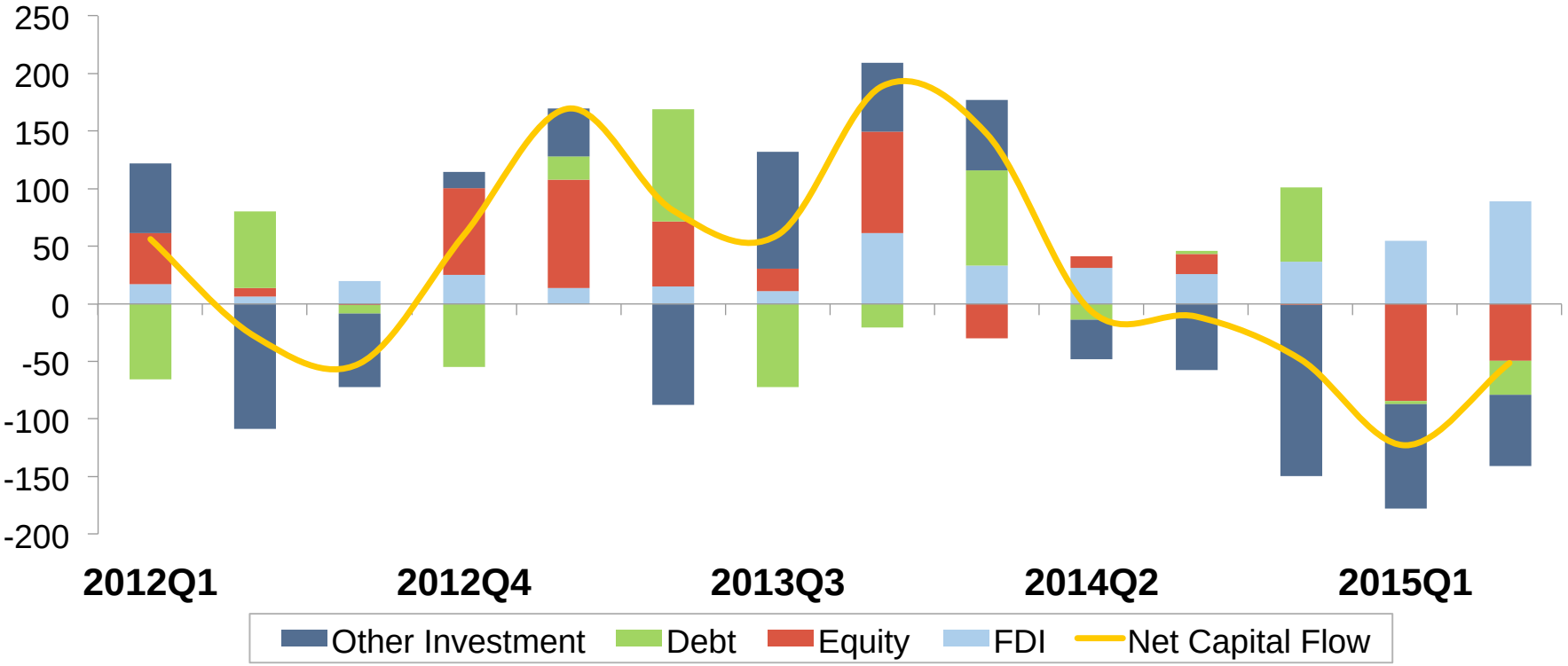
Change in Foreign Exchange Rate (%)



Note: Based on US$ value of local currency. An increase means appreciation, decrease means depreciation.
Source: ADB calculation using Bloomberg.

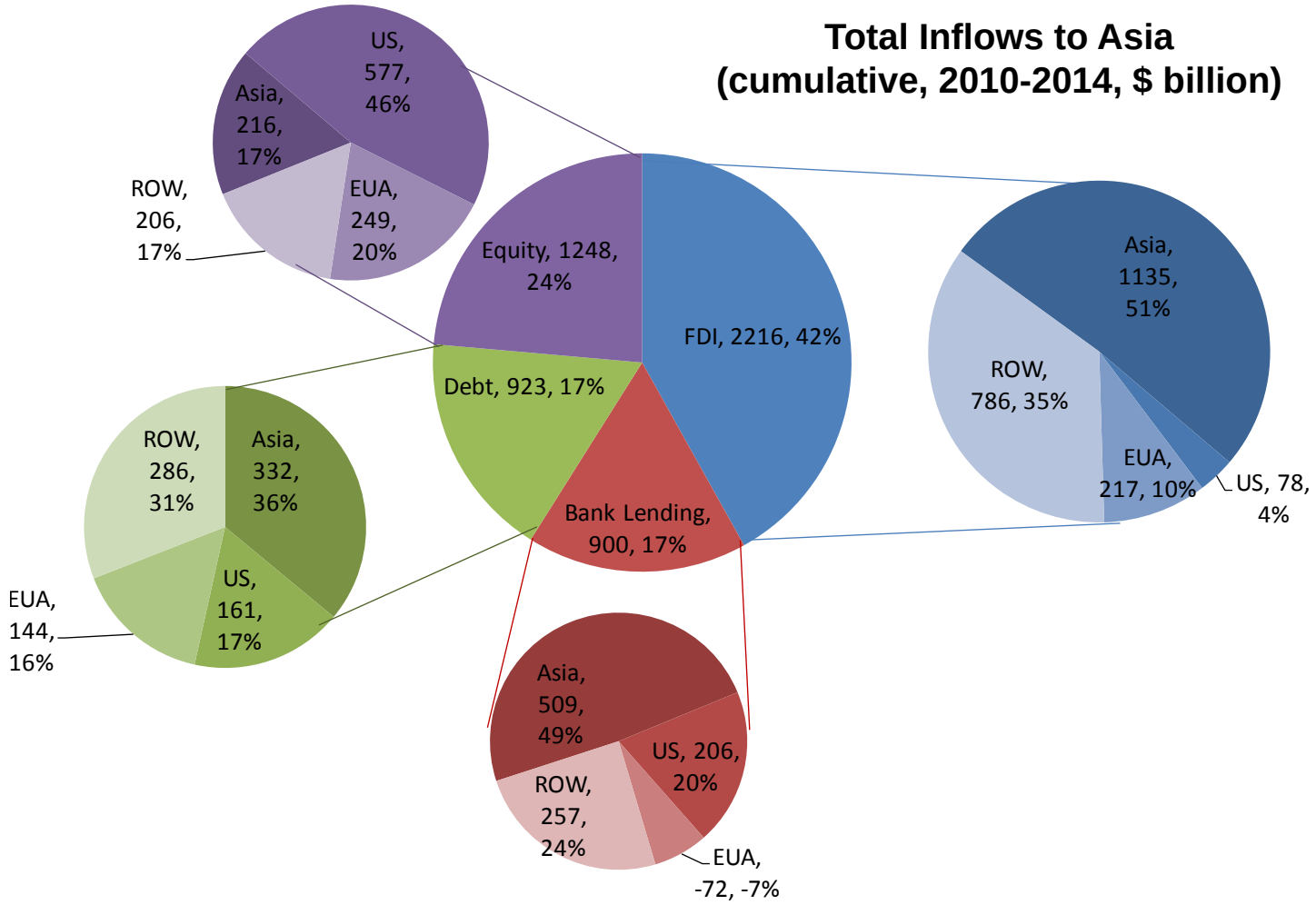
Net capital flows turned negative in 2014 and 2015

Net Capital Flows to Asia ($ billion)



Note: Includes the People's Republic of China; Hong Kong, China; India; Indonesia; Japan; Republic of Korea; Philippines; and Thailand.
Source: ADB calculations using data from *International Financial Statistics*, IMF; and national sources.

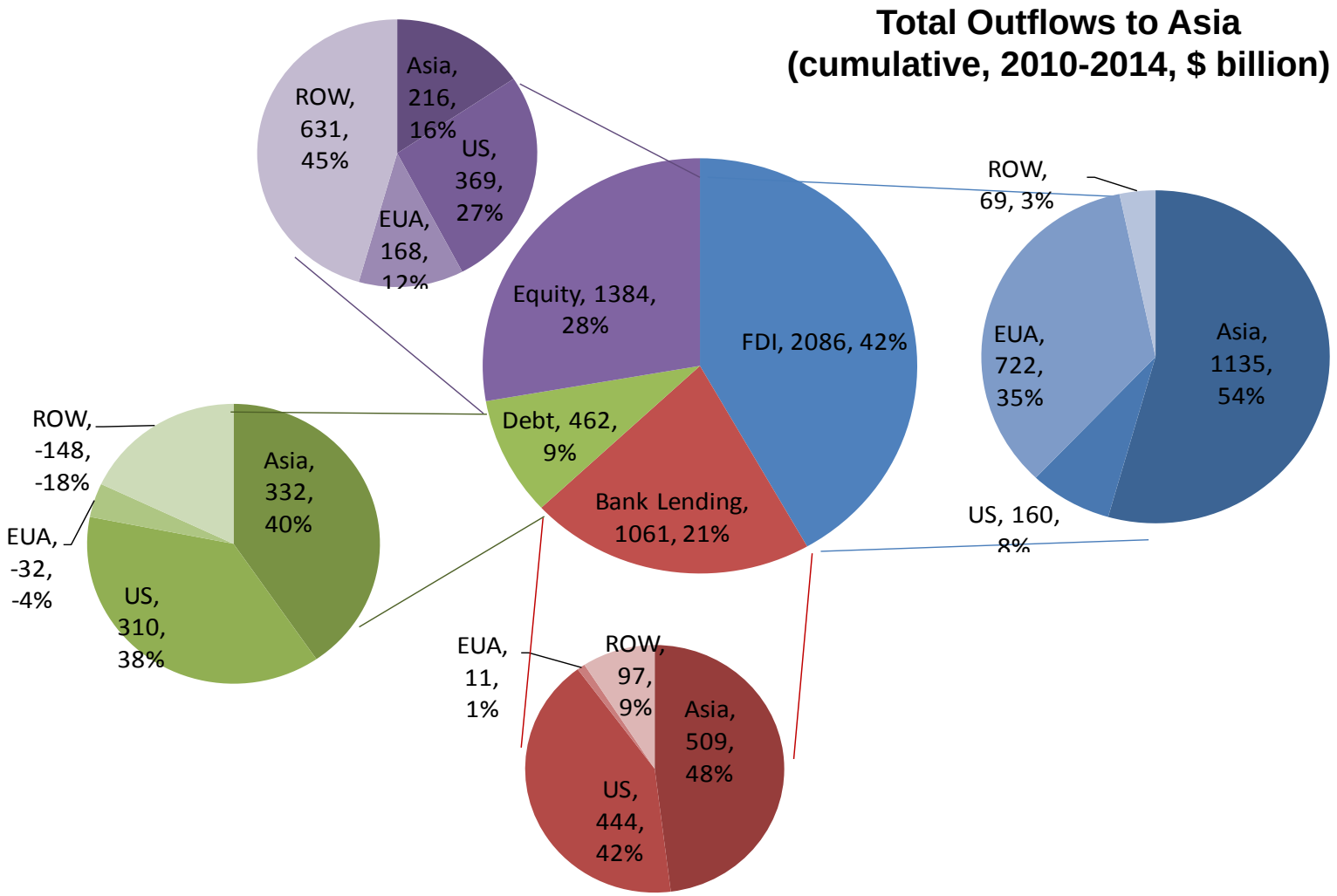
Sources of Financial Flows – Asia



FDI = foreign direct investment, EUA = euro area, ROW = rest of the world, US = United States

Source: ADB staff calculations using data from ASEAN Secretariat, BIS, IMF, CPIS, OECD, and UNCTAD

Sources of Financial Flows – Asia



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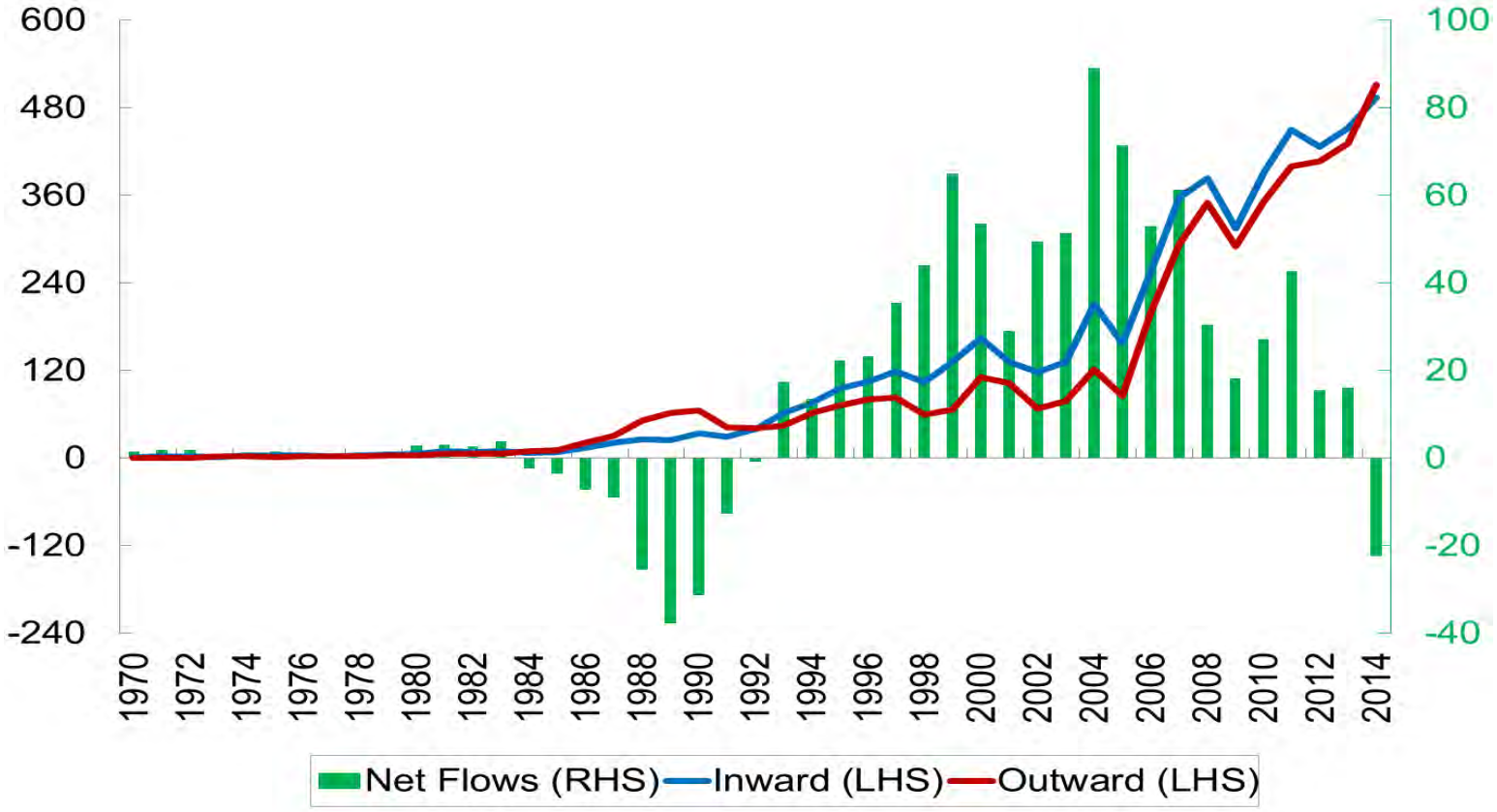
Asia has become an important source of FDI

Total FDI Flows—Asia ($ billion)



FDI = foreign direct investment, LHS = left-hand scale, RHS = right-hand scale.

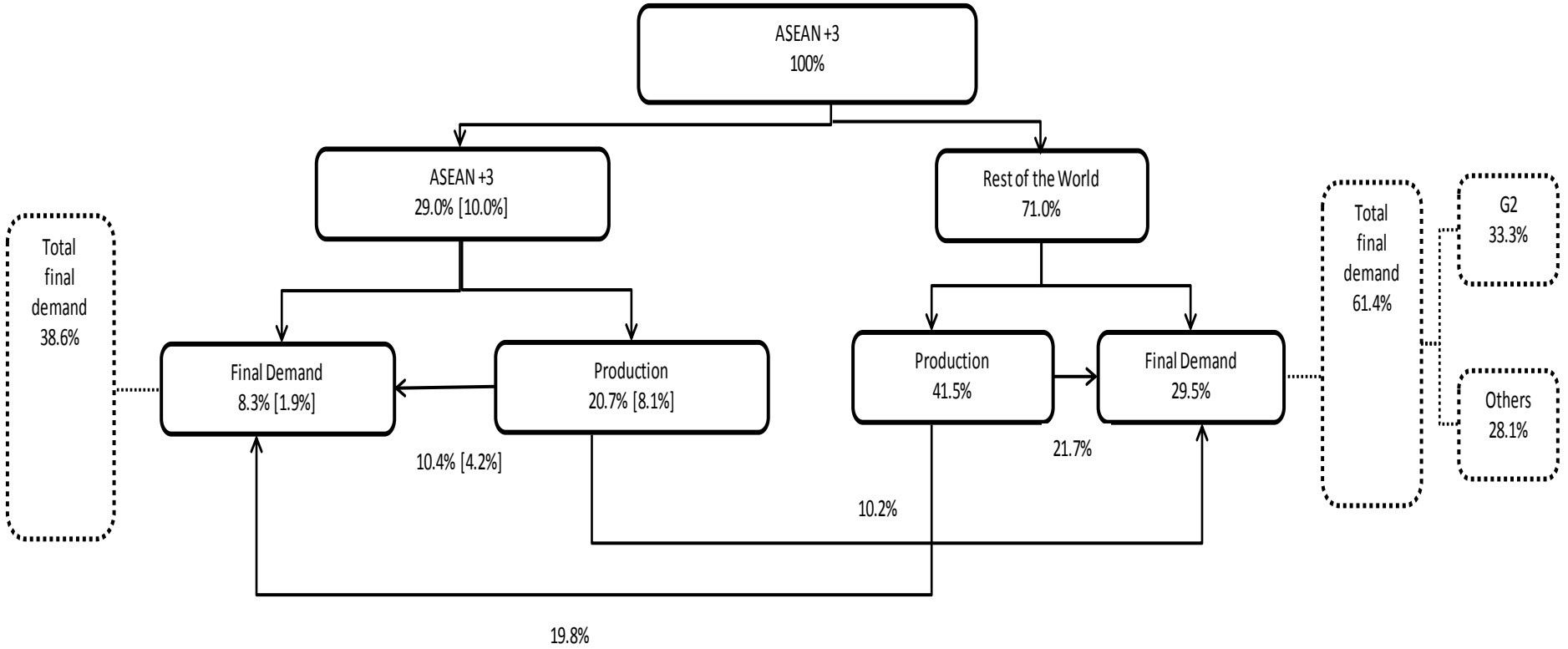
Key Messages

- PRC slowdown, financial volatility, and weak commodity prices are key downside risks to the outlook
- PRC business cycle exerts increasingly large influence Asian business cycles
- Trade growth in Asia slows;
  (a) Cyclical and structural factors
  (b) Regional value chain reached its maturity
- PRC's structural transformation presents both opportunities & challenges for Asia:
- Renewed financial vulnerabilities underscored by the structural patterns of capital flows to the region:
  - FDI is mostly intra-regional
  - Portfolio and other investments are inter-regional

ADB

Spare Slides

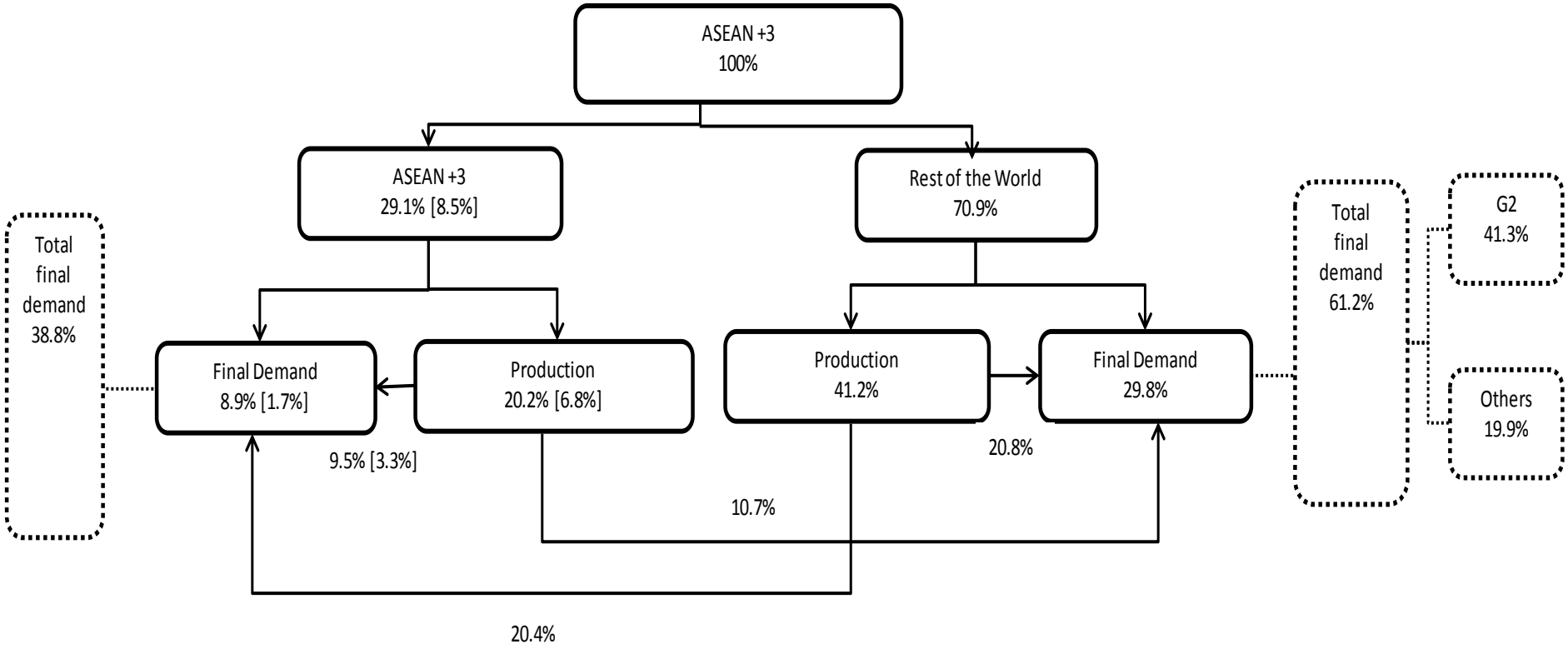
Gross Exports Decomposition, 2011



Source: Asia Regional Integration Center (ARIC) calculations using data from World Input-Output (IO) Tables and ADB Multiregional Input-Output tables (ADB-MRIO), and methodology from Z. Wang, S-J. Wei, and K. Zhu. 2014. Quantifying International Production Sharing at the Bilateral and Sectoral Levels. *NBER Working Paper No. 19677*. Cambridge, MA: NBER.

Note: Except for Bangladesh, Malaysia, the Philippines, Thailand and Viet Nam IO tables, which were constructed by ADB, the rest were sourced from the World Input-Output Database (WIOD). While the WIOD and ADB IO tables have been constructed in a clear conceptual framework on the basis of officially published input-output tables in conjunction with national accounts and international trade statistics, level numbers are likely to remain different from those officially released by the respective economies.

Gross Exports Decomposition, 2005



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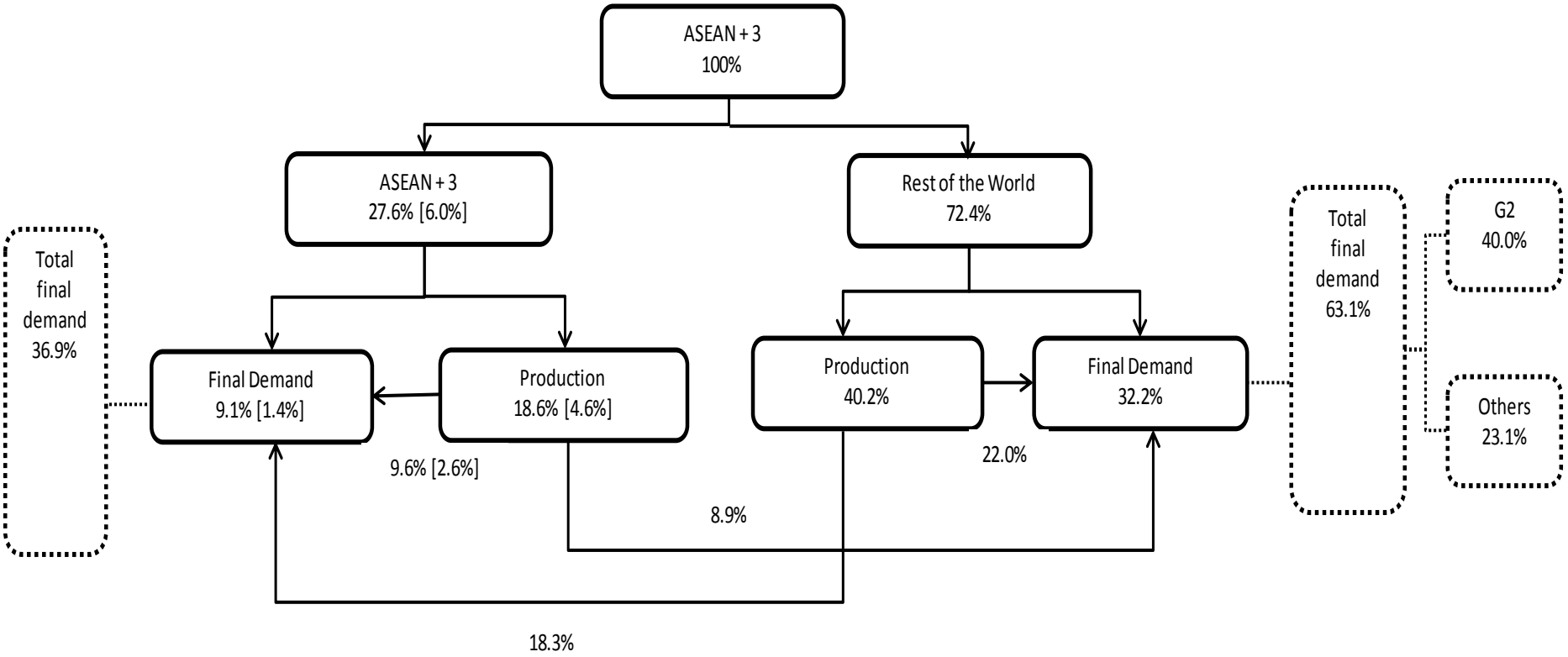
Gross Exports Decomposition, 2000



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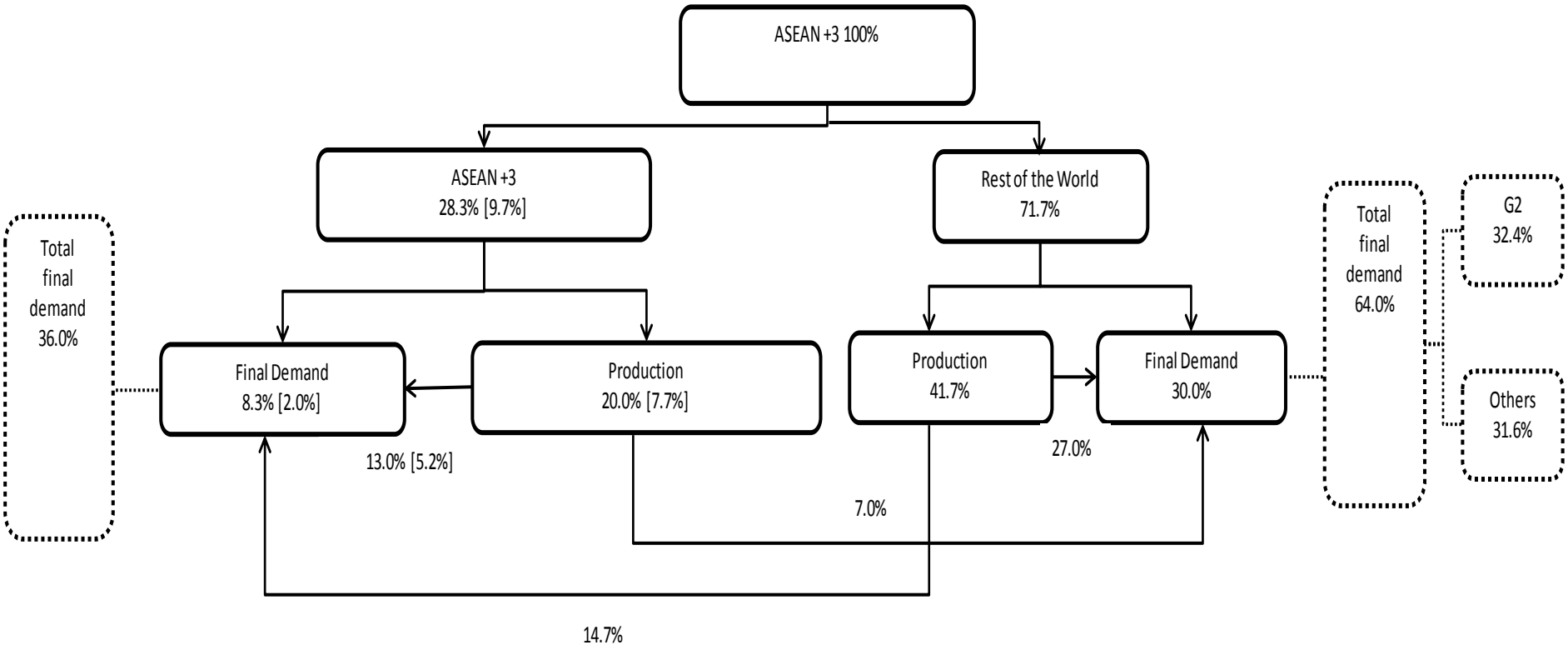
Value-Added Export Decomposition, 2011



Value-added export decomposition = Domestic value-added + Returned domestic value + Foreign value-added
Source: Asia Regional Integration Center (ARIC) calculations using data from World Input-Output (IO) Tables and ADB Multiregional Input-Output tables (ADB-MRIO), and methodology from Z. Wang, S-J. Wei, and K. Zhu. 2014. Quantifying International Production Sharing at the Bilateral and Sectoral Levels. *NBER Working Paper No. 19677*. Cambridge, MA: NBER.
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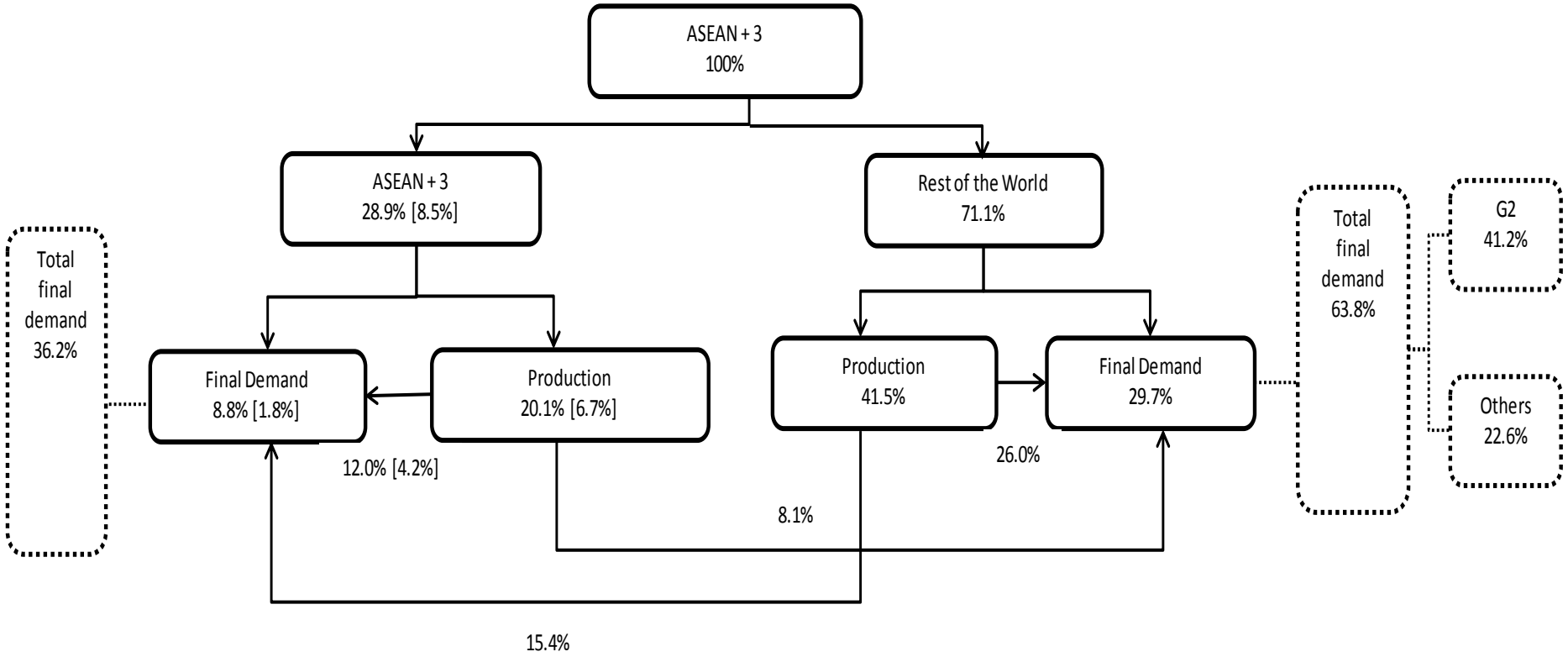
Value-Added Export Decomposition, 2005



Value-added export decomposition = Domestic value-added + Returned domestic value + Foreign value-added
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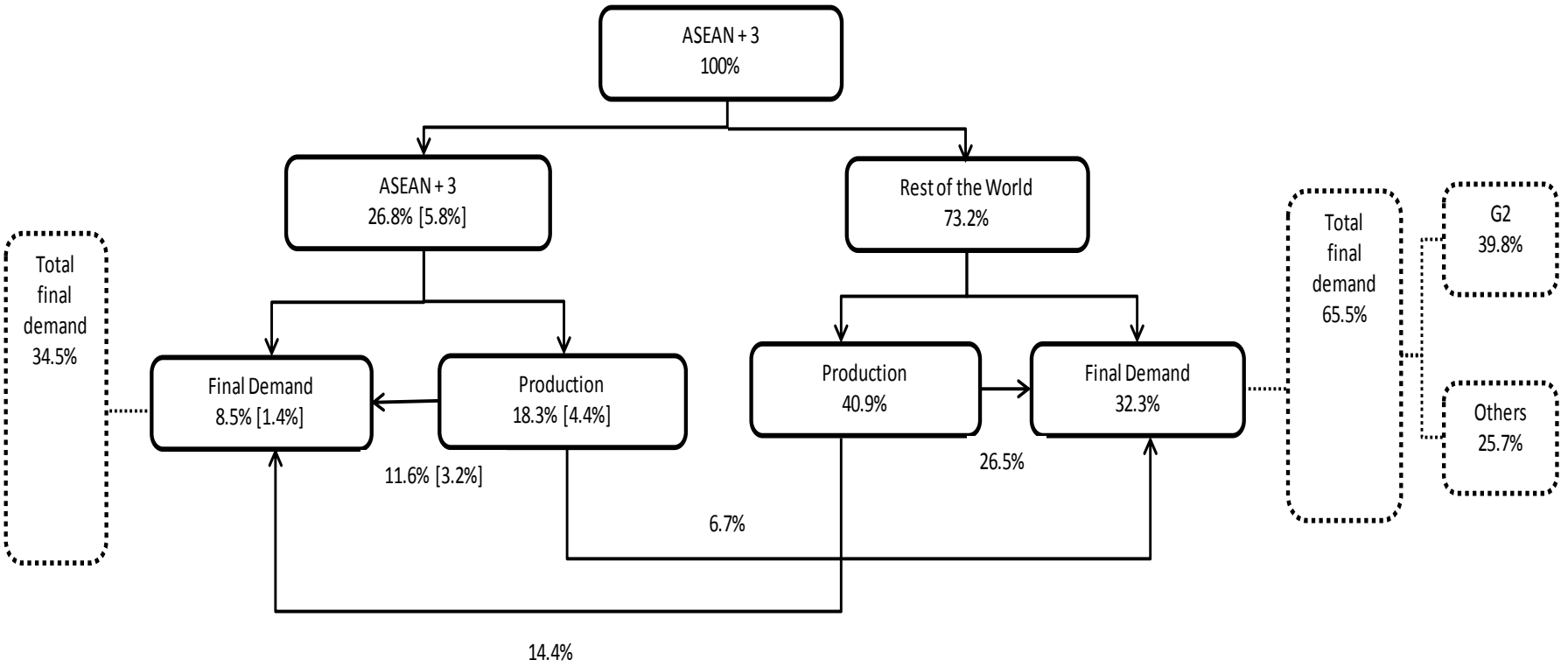
Value-Added Export Decomposition, 2000



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