

Prospects and Challenges in Asian Economic Development and Regional Financial Integration

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Outline

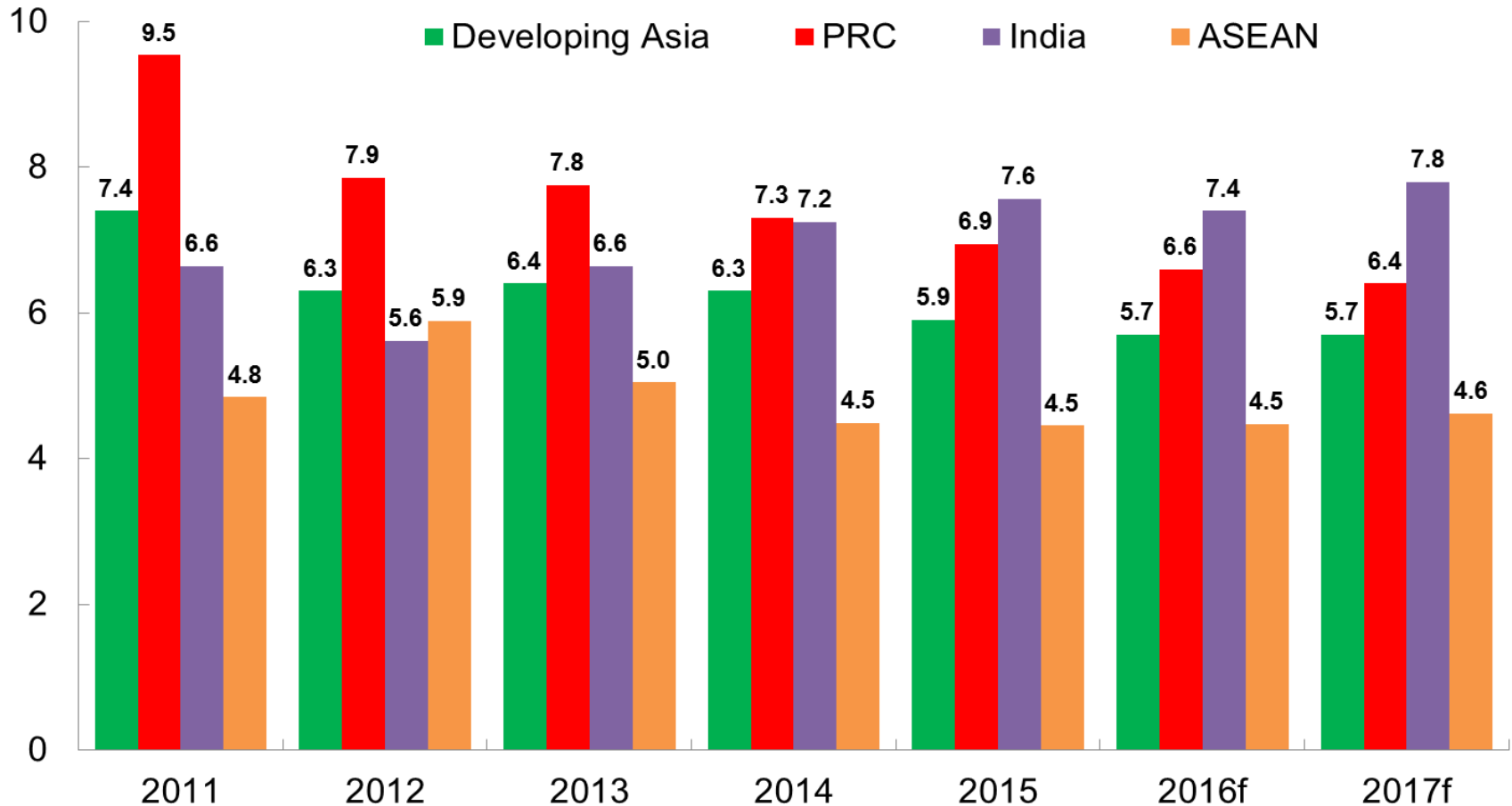
- Economic Outlook and Growth Slowdown
- Progress of Regional Economic Integration
 - Intra-Asian Trade: the PRC's Role and Vertical Supply Networks
 - Trade in Services
 - Trade Protectionism: Non-tariff Measures
 - Non-Performing Loans
 - Financial Integration and Spillovers
- Asian Business Cycles and External Shocks

Economic Outlook and Growth Slowdown



Growth in Developing Asia remains robust

Real GDP Growth (y-o-y, %)



Note: f = ADB forecasts; weighted using gross national income (Atlas method).
Source: *Asian Development Outlook 2016 Update*, ADB.

Large variations across economies

	2016	2017		2016	2017
Developing Asia	5.7	5.7	NIE4		
PRC	6.6	6.4	Hong Kong, China	1.5	2.0
India	7.4	7.8	Republic of Korea	2.6	2.8
ASEAN4			Singapore	1.8	2.0
Indonesia	5.0	5.1	Taipei, China	0.9	1.5
Malaysia	4.1	4.4	Japan	0.6	0.8
Philippines	6.4	6.2	Euro area	1.5	1.4
Thailand	3.2	3.5	US	1.5	2.4

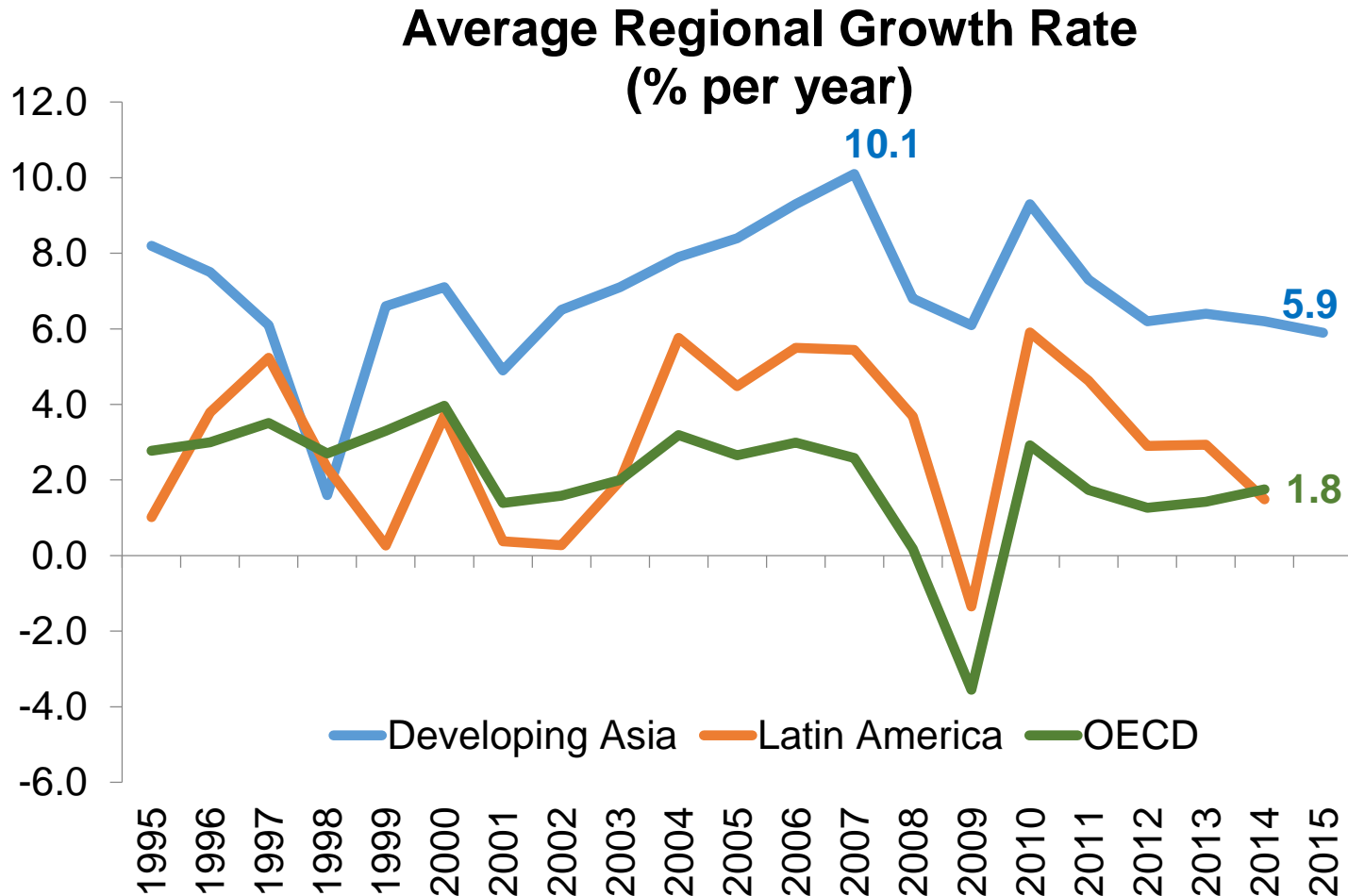


PRC = People's Republic of China.

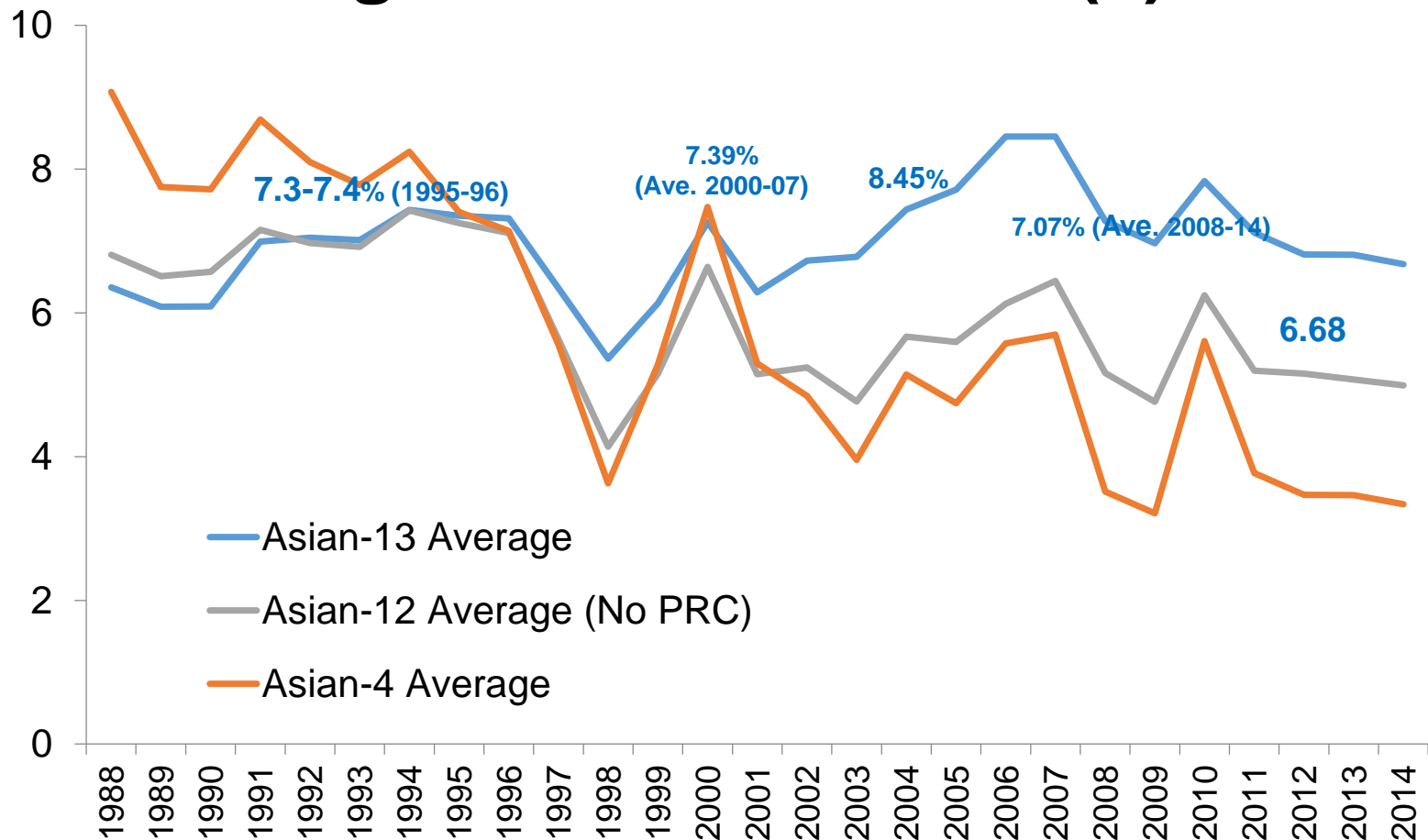
Note: Developing Asia based on ADB's definition.

Source: *Asian Development Outlook Update 2016*, ADB and *World Economic Outlook 2016*, IMF.

Growth slowdown in developing Asia: Cyclical or Structural?



Developing Asia's potential output growth has slowed (1)



Source: ADB (2016), Asian Development Outlook

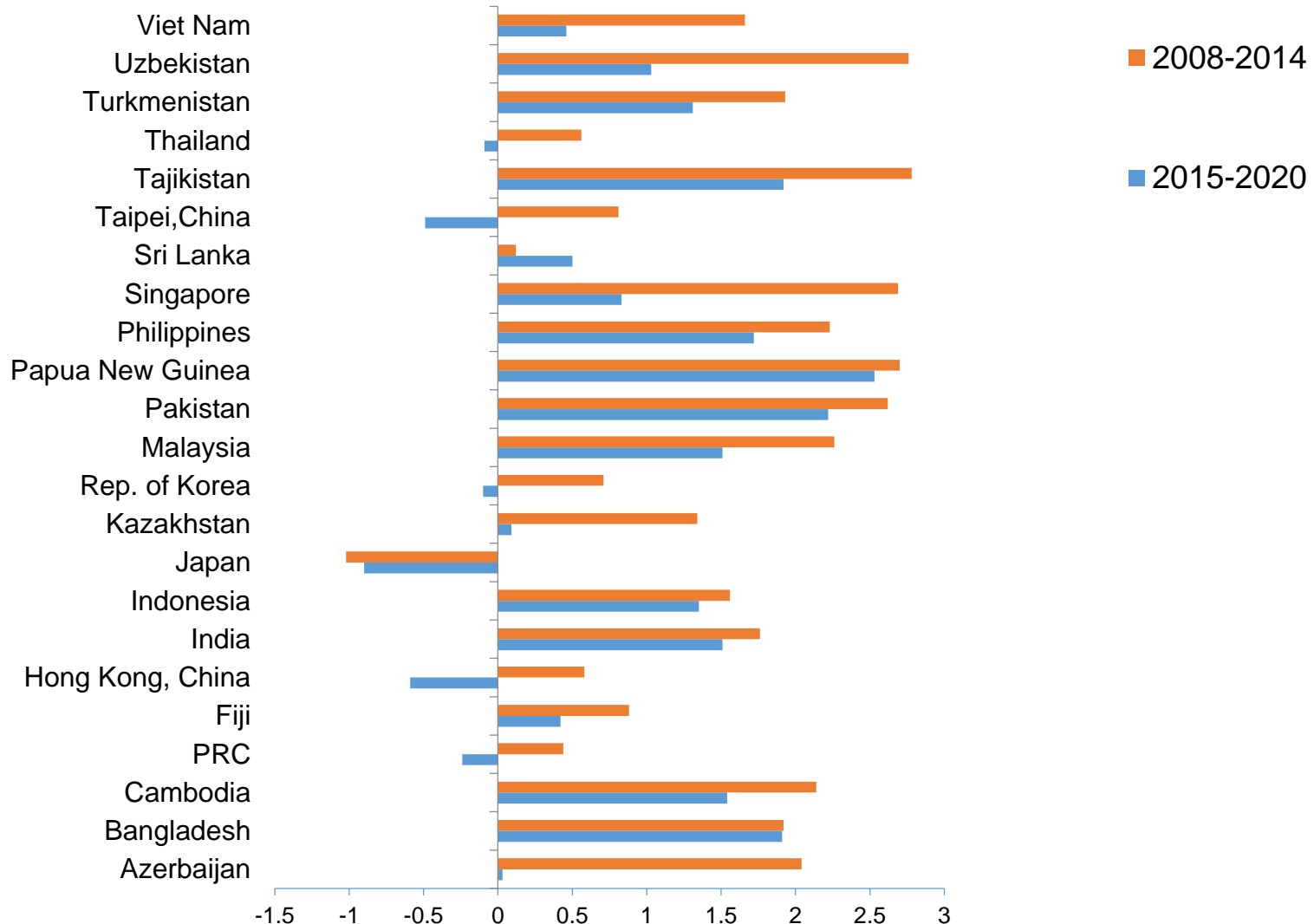
Developing Asia's potential growth fell by 0.32 pp between 200-2007 and 2008-2014. Down in 16 of 22 economies

Developing Asia's potential output growth has slowed (2)

- Factors driving down potential growth: (i) demographics; (ii) convergence process; (iii) diminishing returns of factors that increased labor productivity in the past.
- Supply-side policies and reforms can boost potential growth:
 - Labor market flexibility; quality of institutions; trade openness; financial integration;
 - Investment in infrastructure, human capital, and technology.
- Sound macro-management can avoid volatility and reduce output gap.

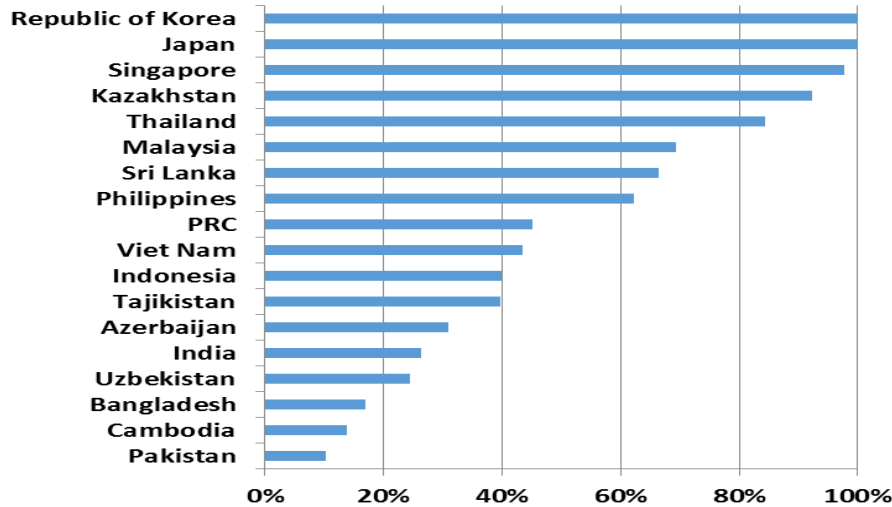
Employment growth will contribute less to potential growth in the coming years

Working-age population annual growth (%)

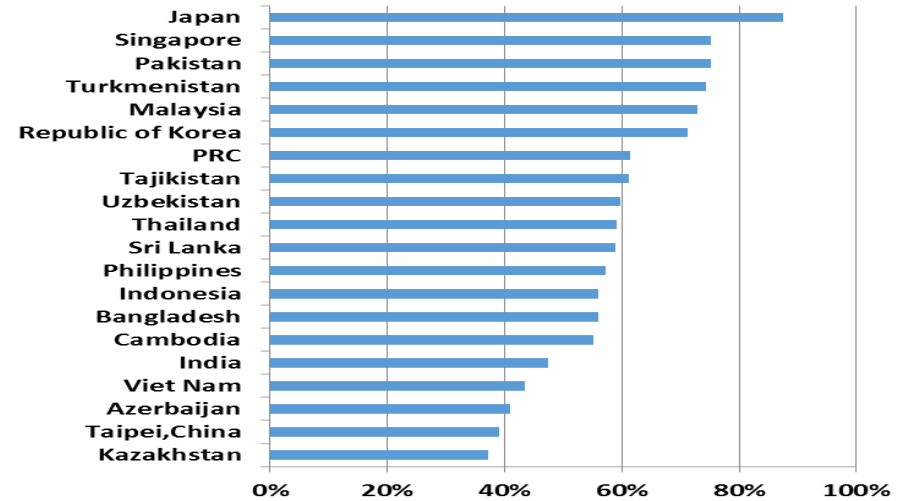


But structural reforms can boost potential growth

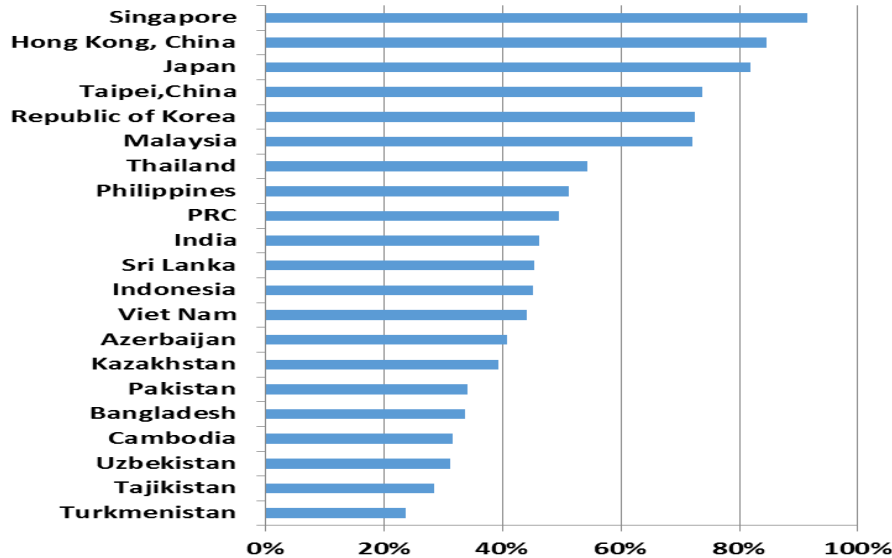
Tertiary enrollment ratio



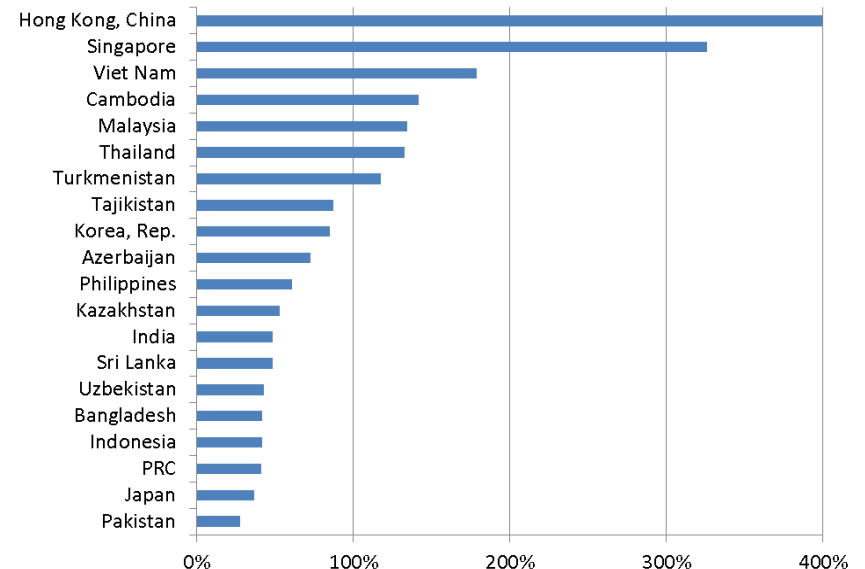
Labor market flexibility



Government effectiveness



Trade ratio

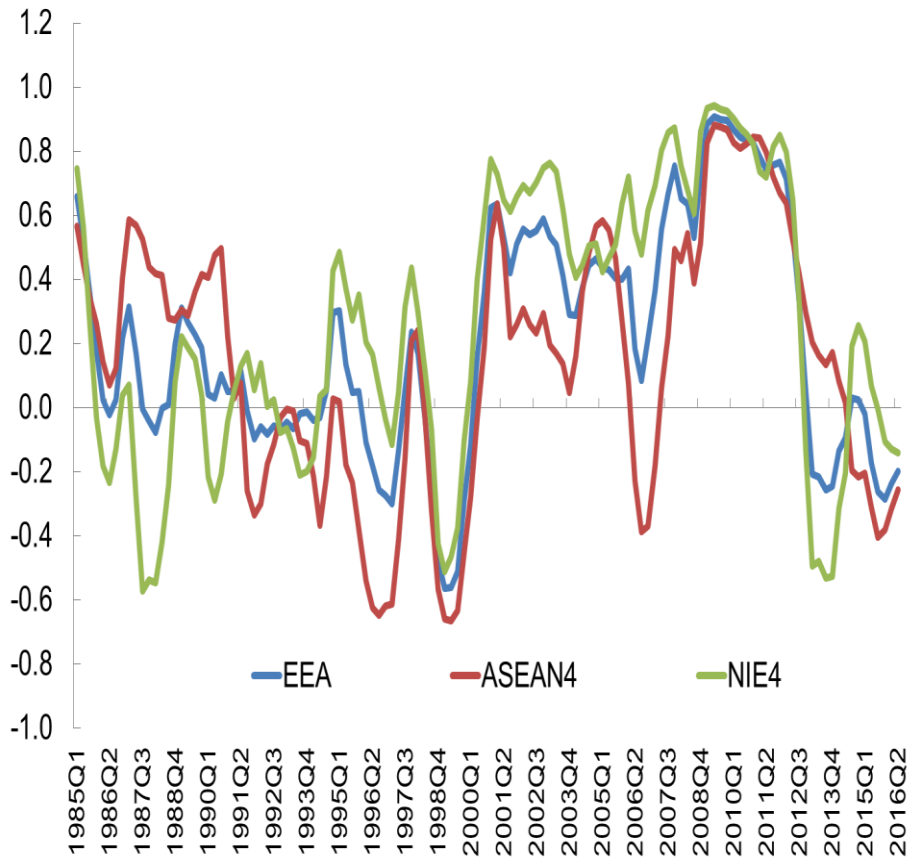


Intra-Asian Trade: The PRC's Role and Vertical Supply Networks

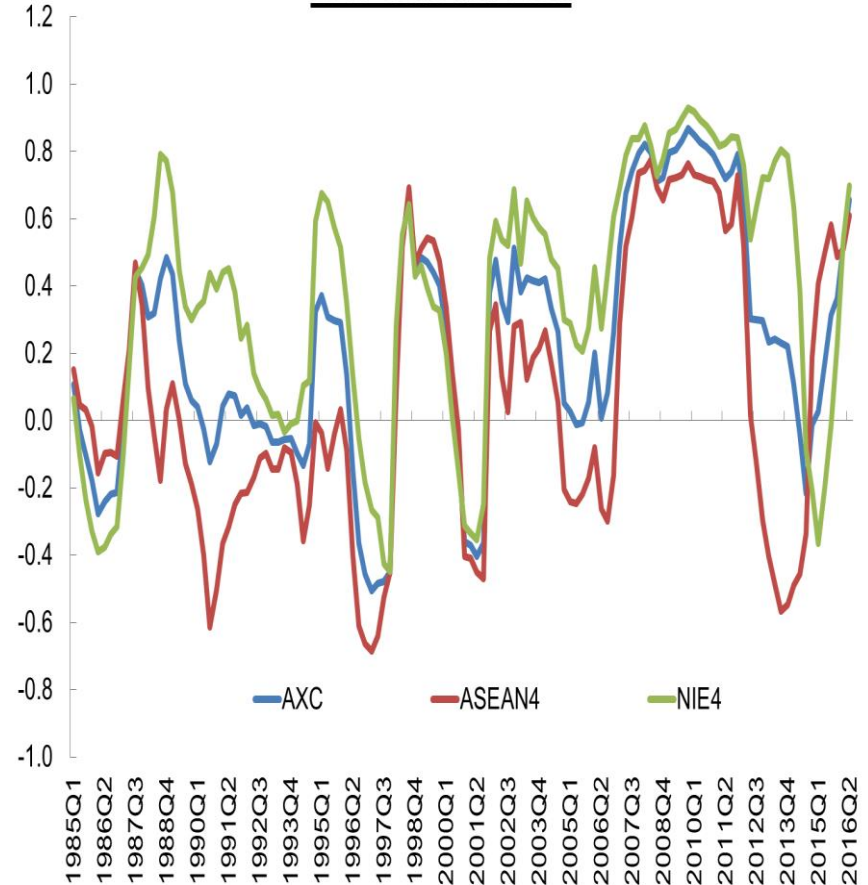


EEA business cycles increasingly less correlated with US, more with PRC

EEA with United States



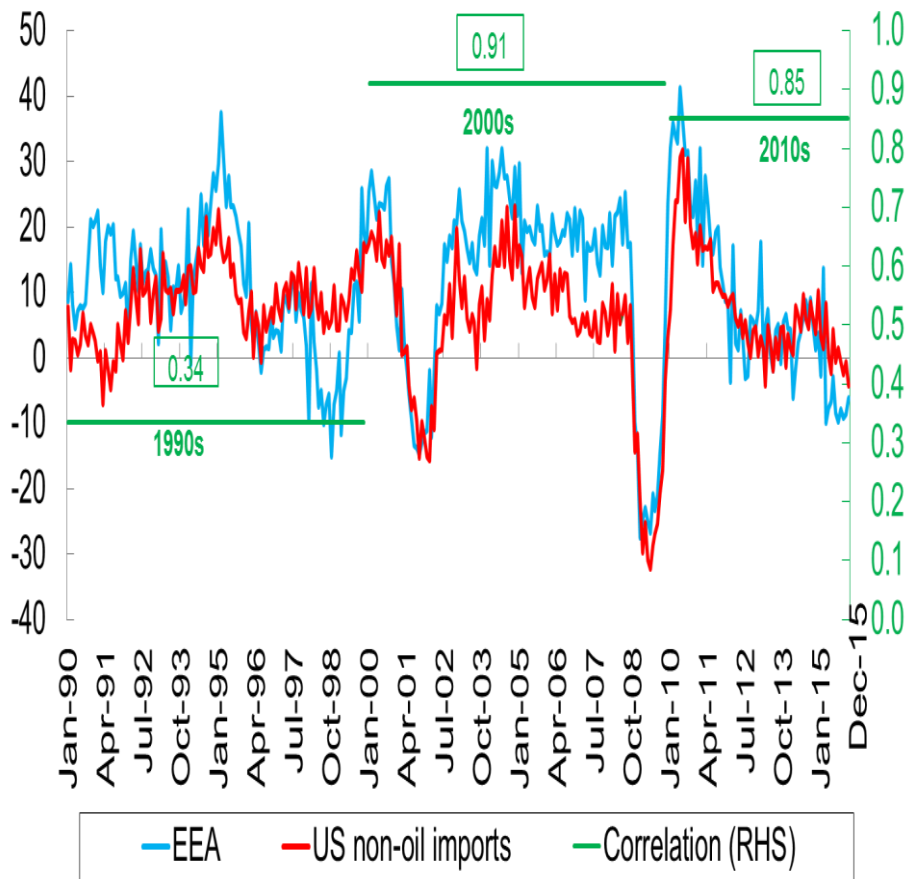
AXC with the PRC



Note: Developing APEC-Asia includes the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; Philippines; Singapore; and Thailand. Developing APEC-Americas includes Chile, Mexico, and Peru. Advanced APEC includes Australia, Canada, euro area, Japan, New Zealand, and Russian Federation. 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.

Correlation between growth in EEA exports and US non-oil imports

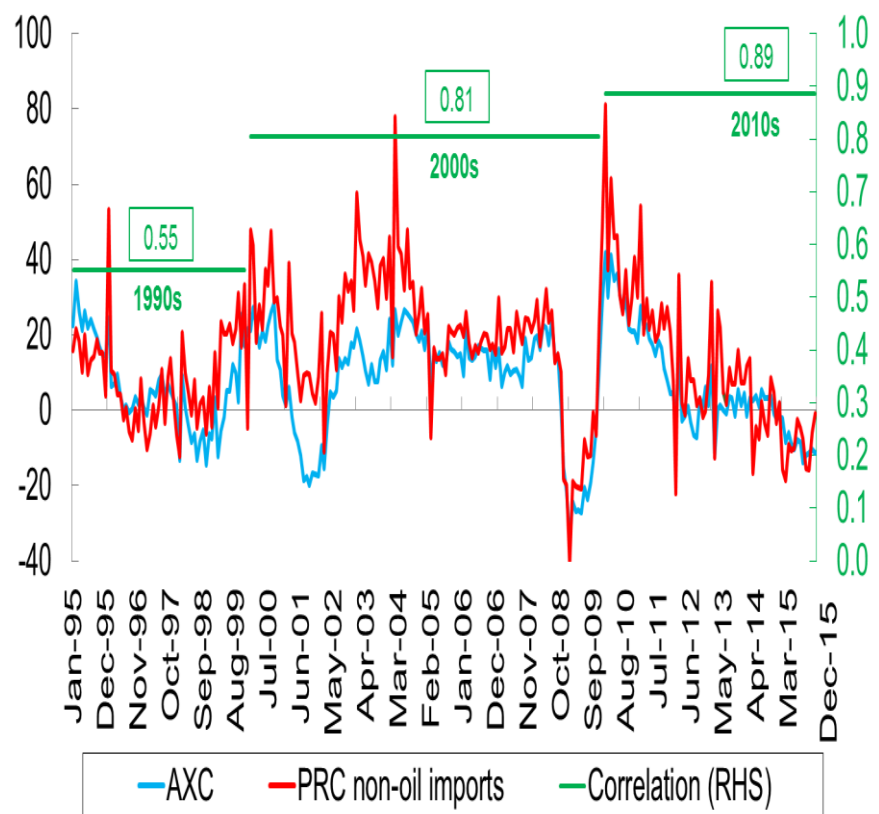


EEA = ASEAN 4 (Indonesia, Malaysia, Philippines, Thailand), NIE 4 (Hong Kong, China; Korea, Rep. of; Singapore, Taipei, PRC), and PRC

Note: non-oil imports computed by subtracting crude oil import from the total import of goods.

Source: ADB calculation using data from *International Financial Statistics*, International Monetary Fund (IMF), US Census Bureau

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

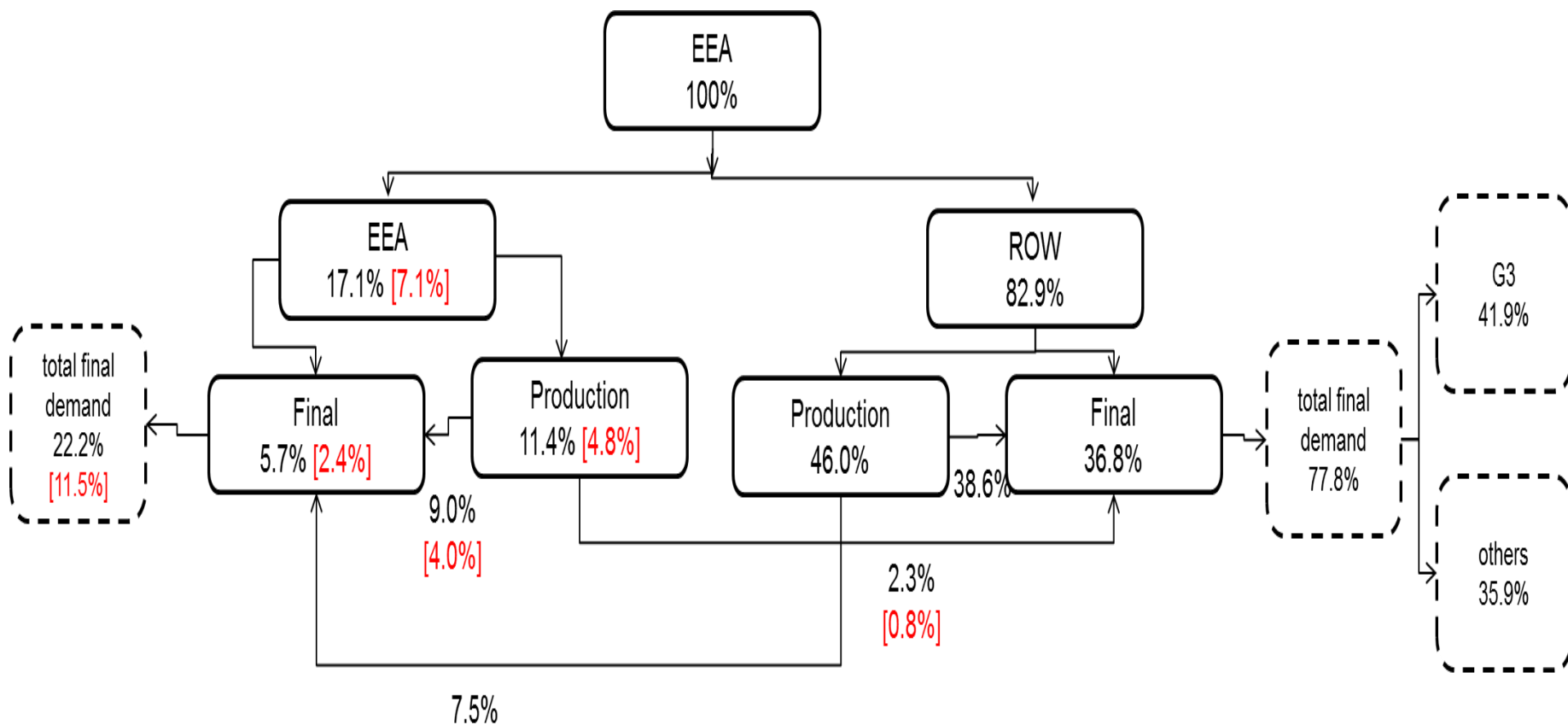


AXC includes EEA except PRC, i.e. ASEAN 4 (Indonesia, Malaysia, Philippines, Thailand) and NIE 4 (Hong Kong, PRC; Korea, Rep. of; Singapore, Taipei, PRC).

Note: Non-oil imports was 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 *International Financial Statistics* (IFS), International Monetary Fund (IMF).

EEA Value-Added Export Decomposition, 2011



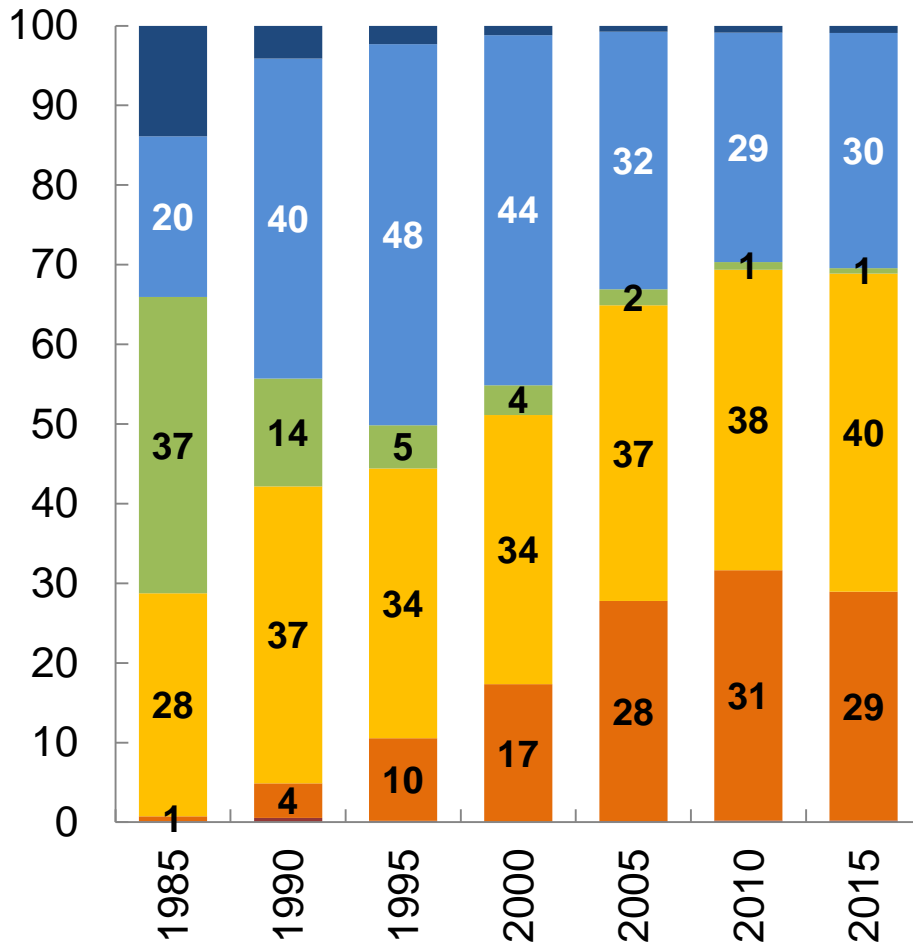
Value-added export decomposition = Domestic value-added + Returned domestic value.

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.

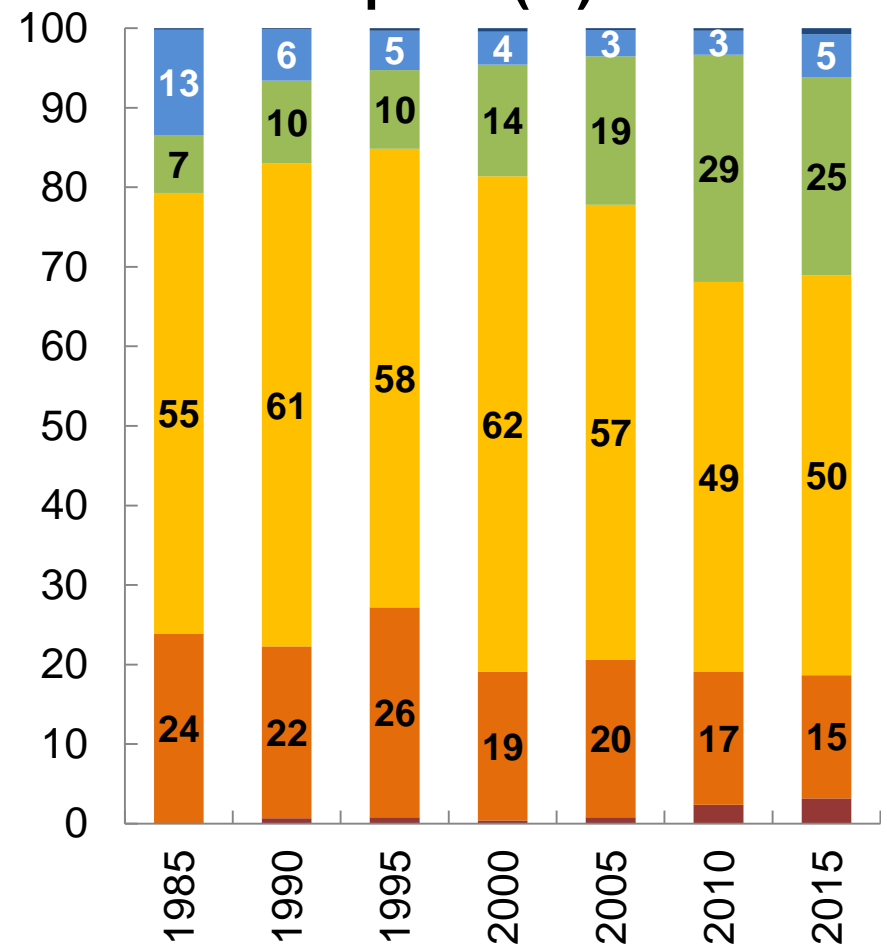
Source: Asia Regional Integration Center (ARIC) calculations using data from World Input-Output (IO) Tables and ADB Multiregional Input-Output tables (ADB-MRIO), and methodology from Z. Wang, S-J. Wei, and K. Zhu. 2014. Quantifying International Production Sharing at the Bilateral and Sectoral Levels.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

PRC's Export and Import Share By Commodity Groups

Exports (%)

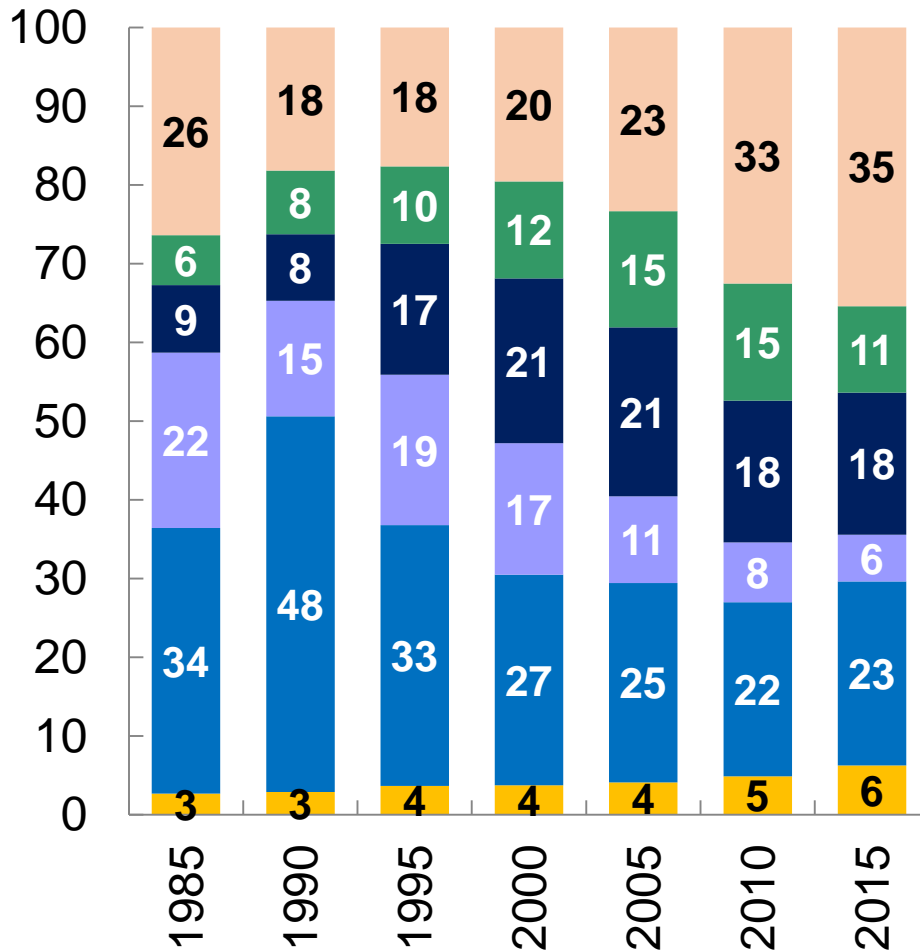


Imports (%)

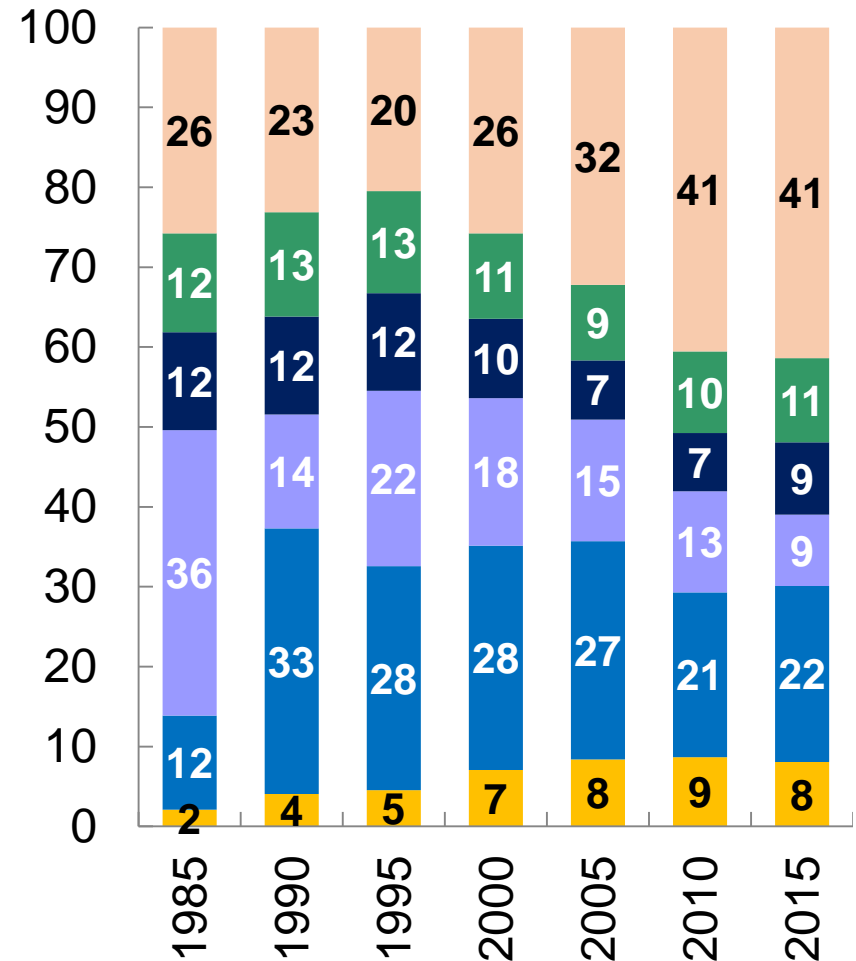


PRC's Export and Import Share By Partner

Exports (%)



Imports (%)

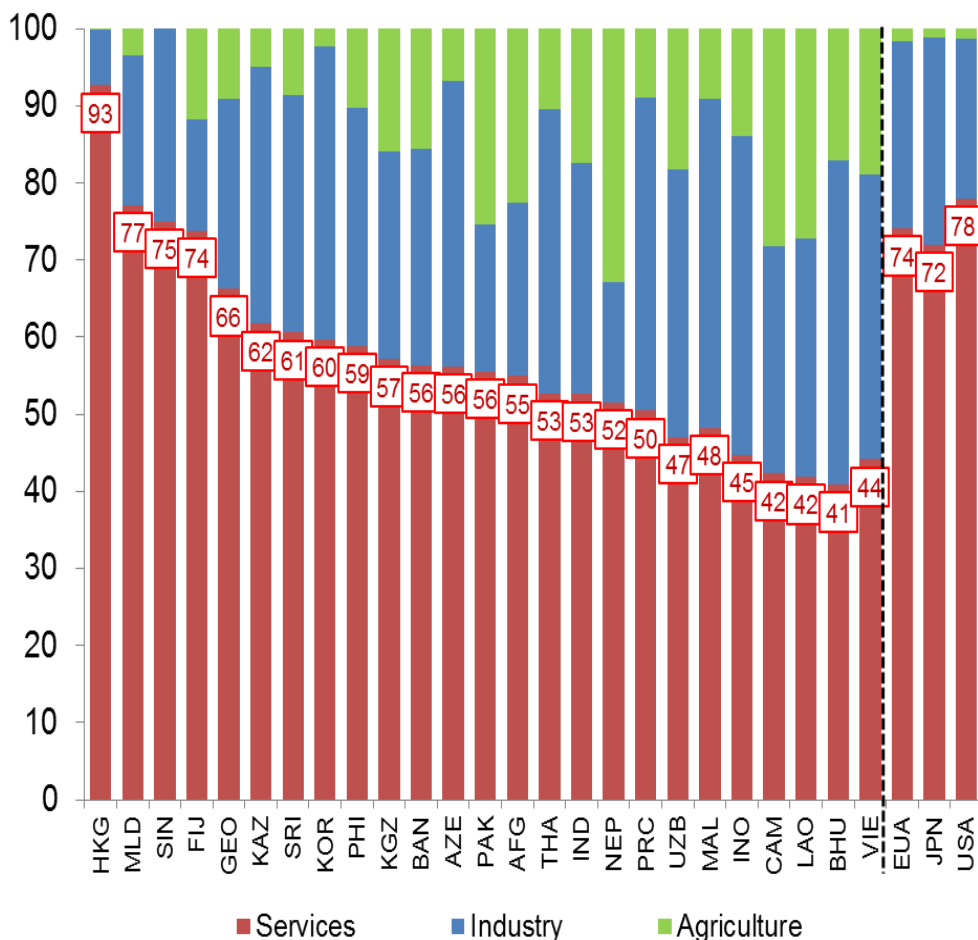


Trade in services

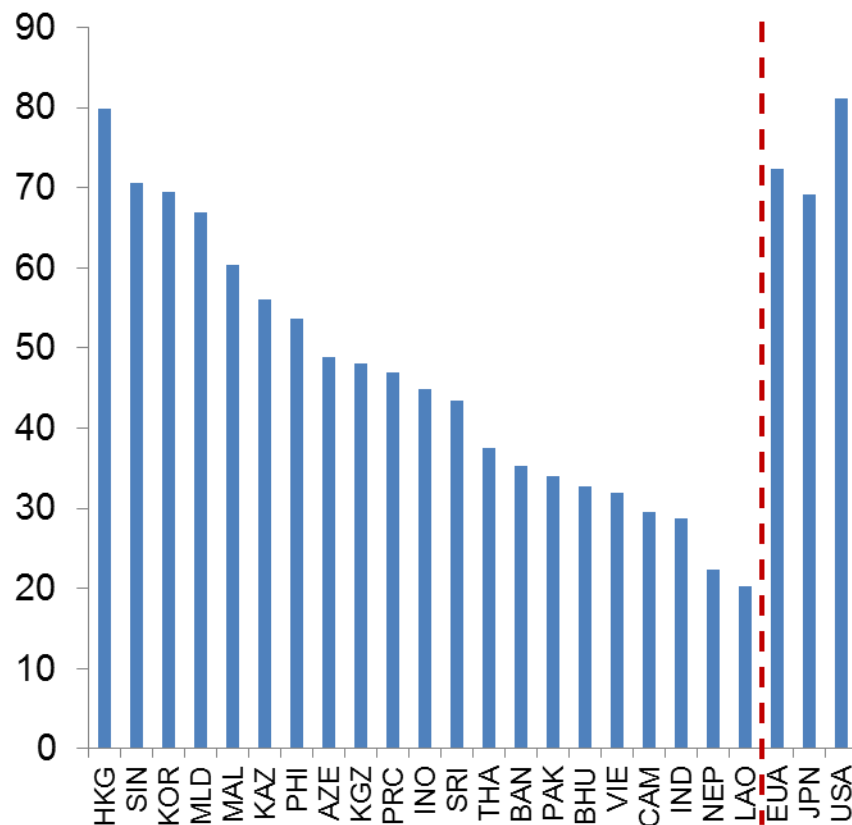


Service sector's share remains low compared to advanced economies

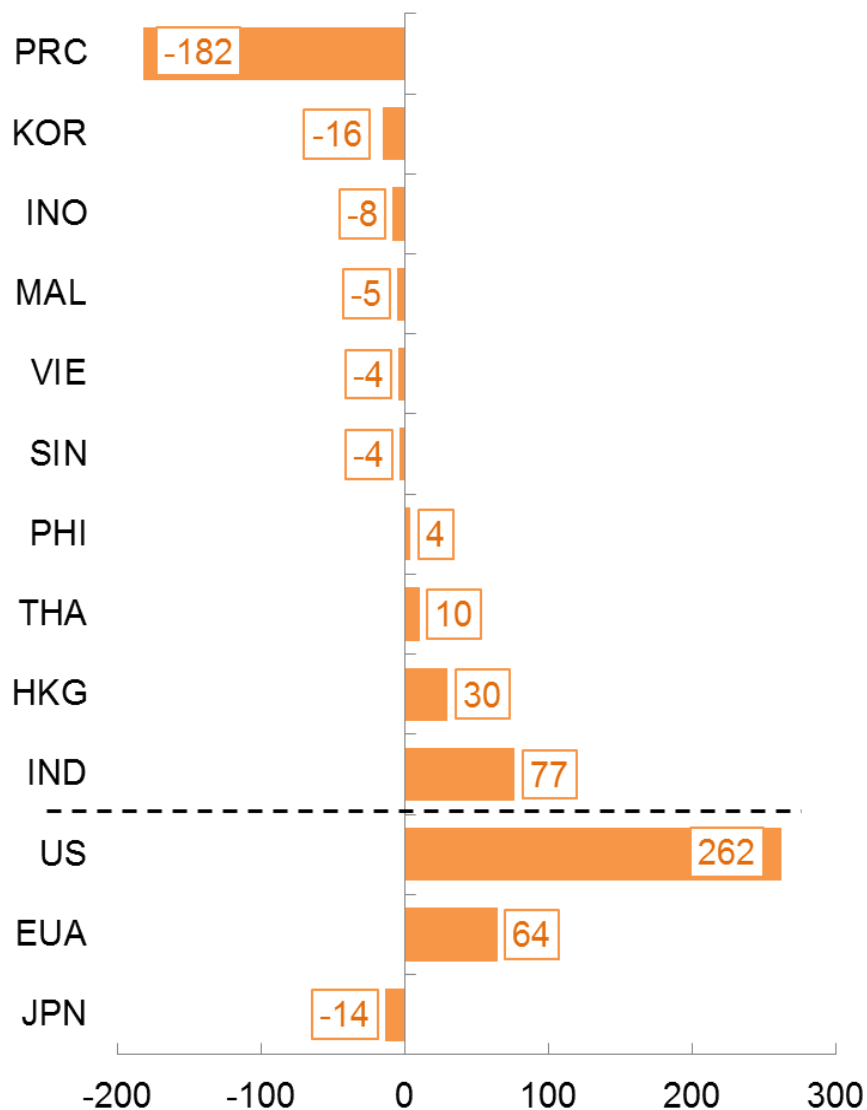
Sectoral Distribution of GDP (%)



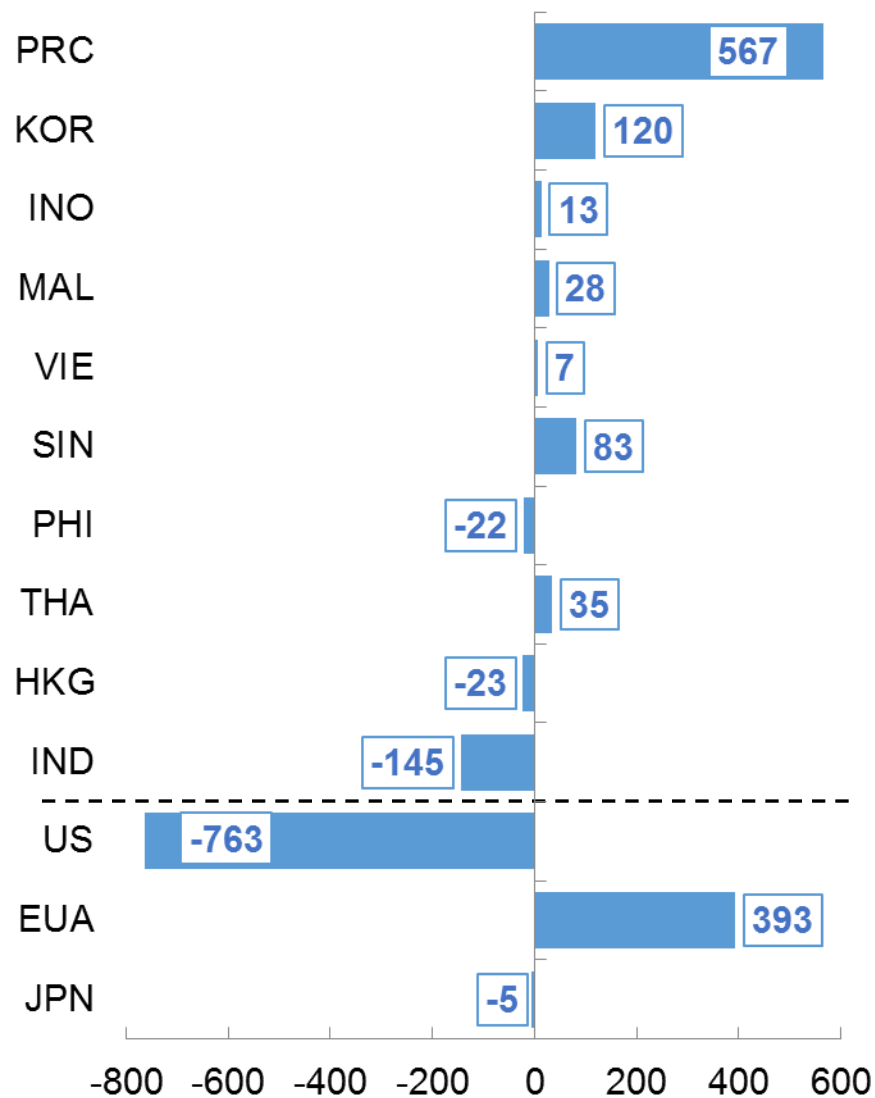
Employment in services (% of total employment)



Services trade balance (2015, \$ billion)

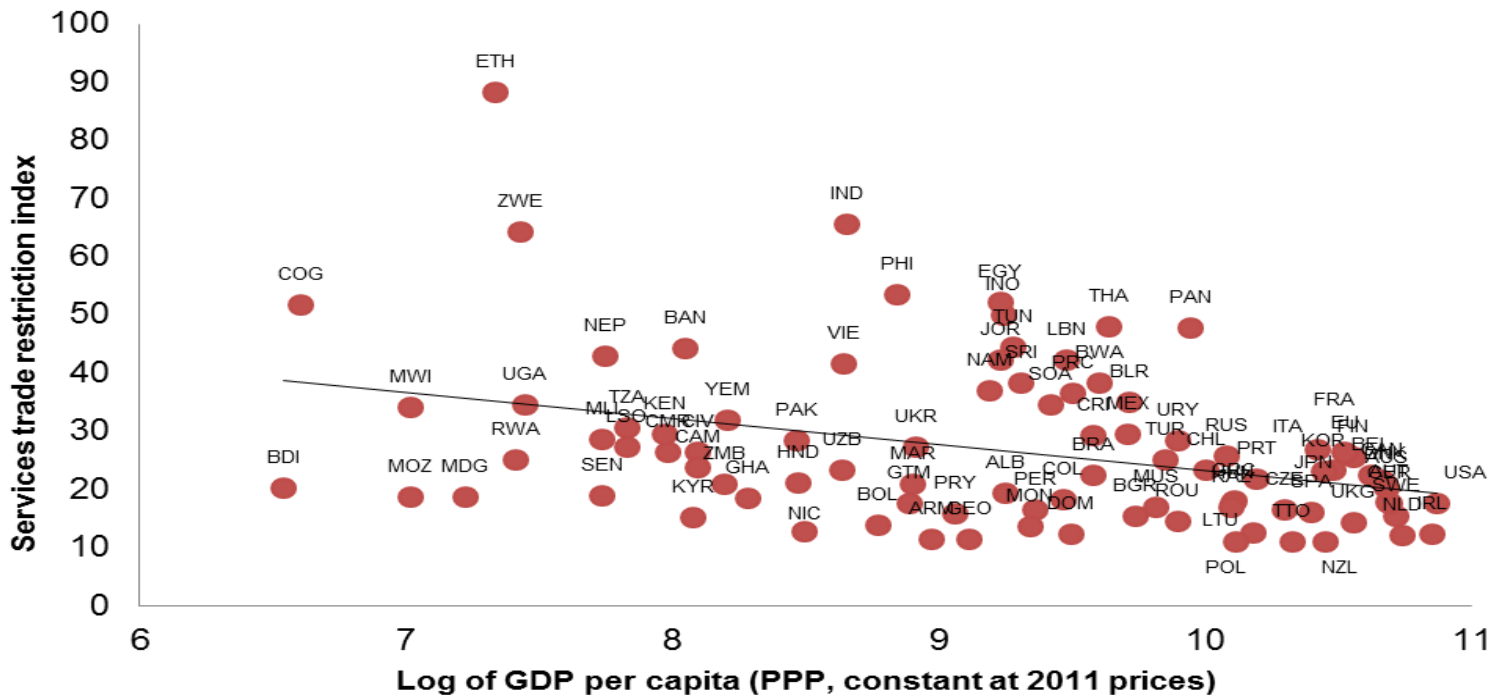


Goods trade balance (2015, \$ billion)



Lower service trade restriction is associated with higher income level

Services Trade Restriction Index versus Log of GDP per capita



Note: Includes all countries in the Overall Services Trade Restriction Index.

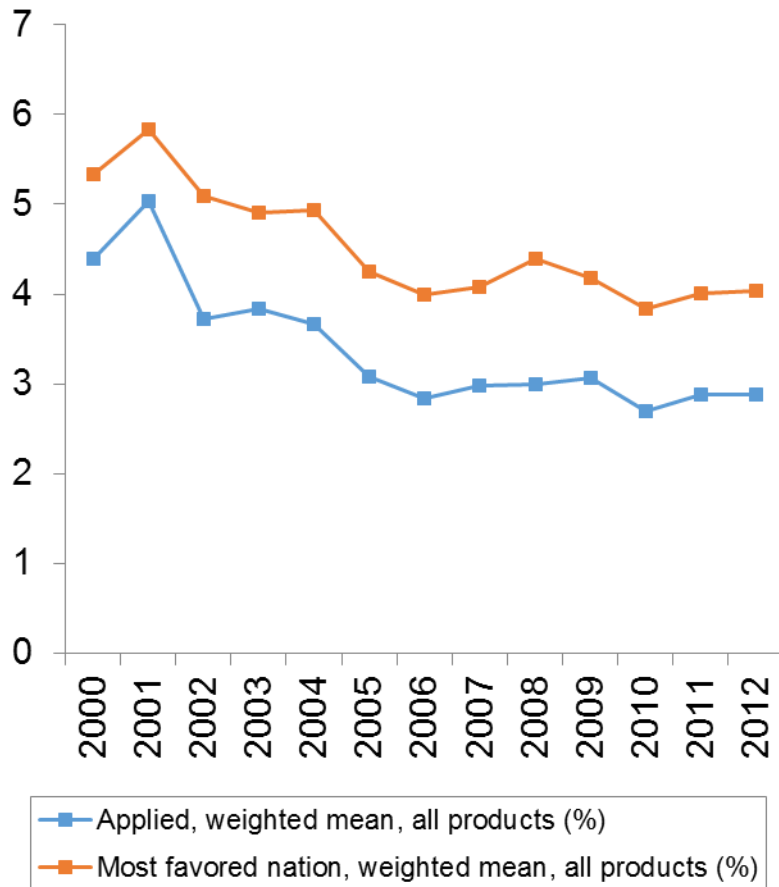
Source: Borchert, Gootiz, Matoo. 2014. Policy Barriers to International Trade In Services: Evidence from a New Database. World Bank Economic Review. Vol. 28(1). 162-188.; World Development Indicators, World Bank.

Trade Protectionism: Non-tariff Measures

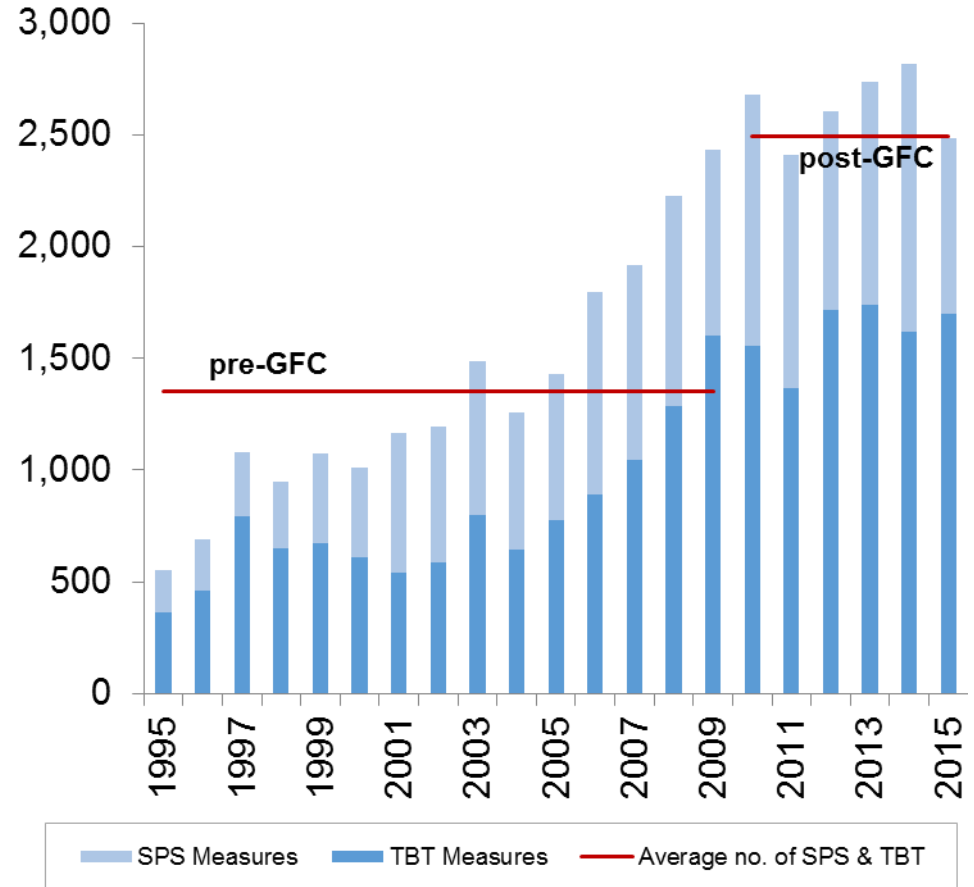


Rising NTMs: SPS and TBT

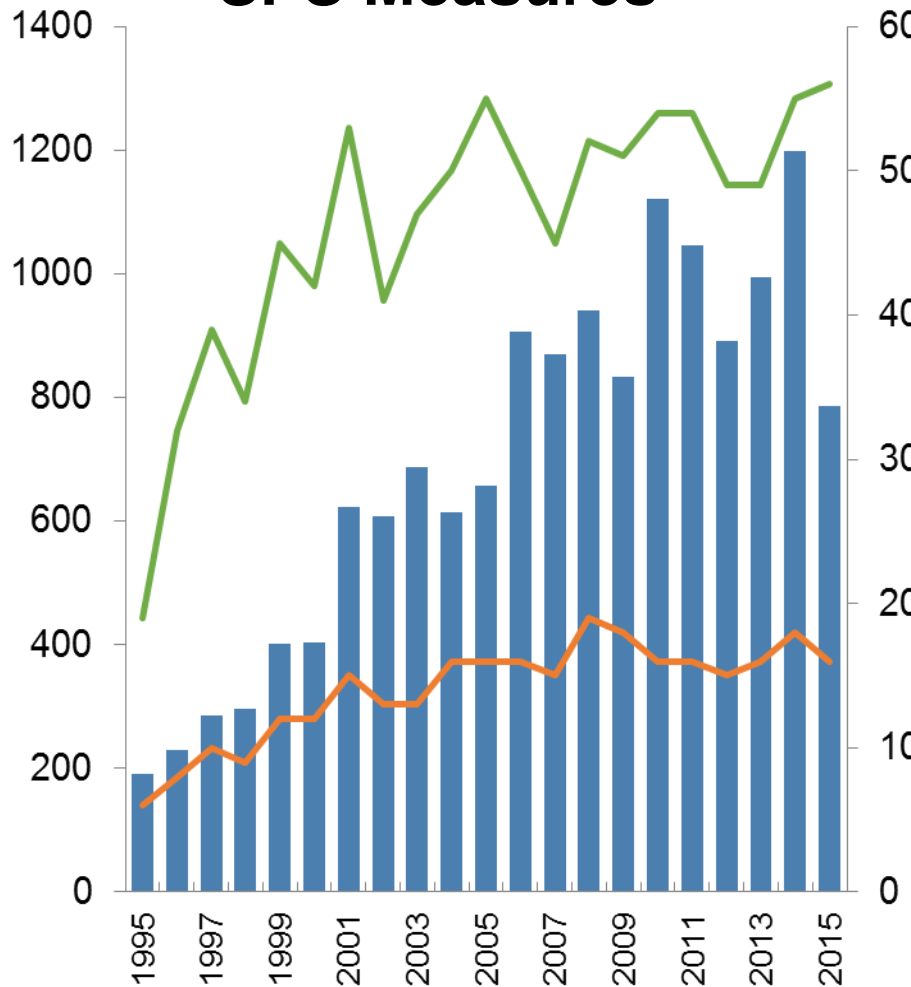
Tariff Rate (weighted mean)



SPS & TBT measures

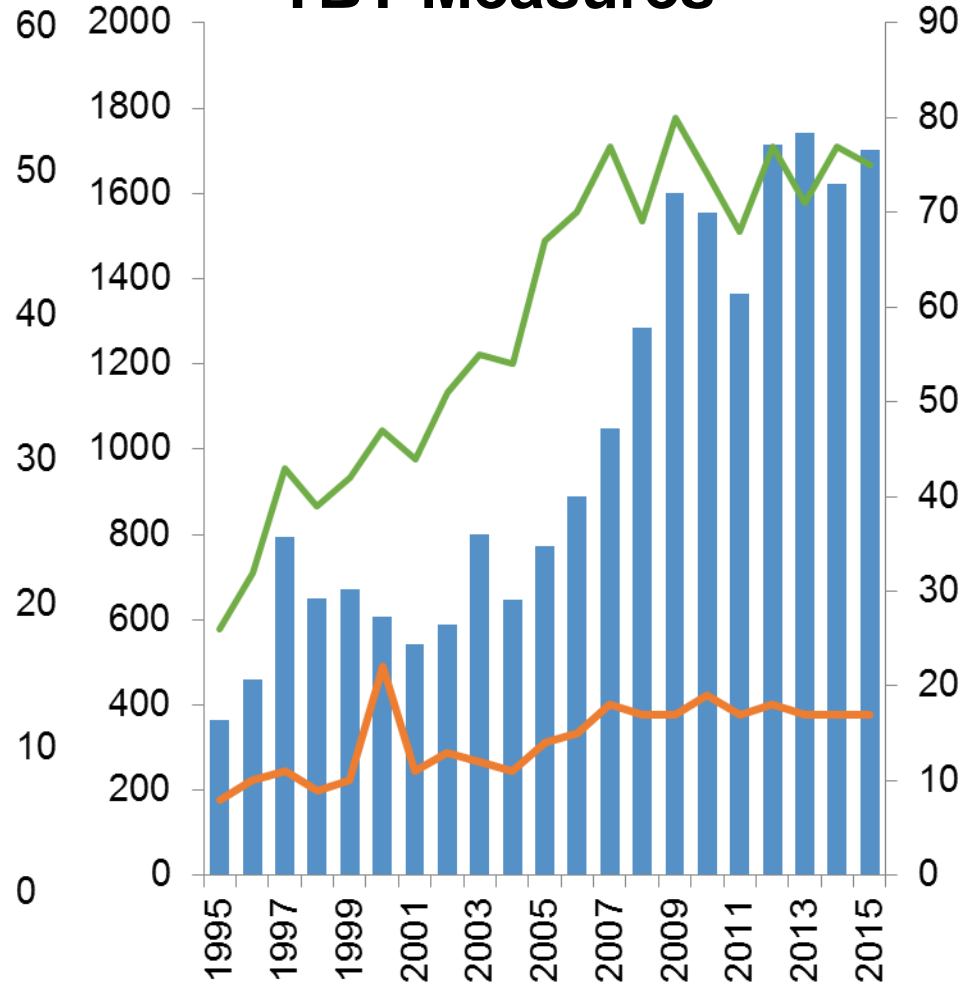


SPS Measures



- Number of SPS Measures (left axis)
- Number of countries imposing SPS measures (right axis)
- Number of Asian countries imposing SPS measures (right axis)

TBT Measures



- Number of TBT Measures (left axis)
- Number of countries imposing TBT measures (right axis)
- Number of Asian countries imposing TBT measures (right axis)

Gravity Model Estimation Results

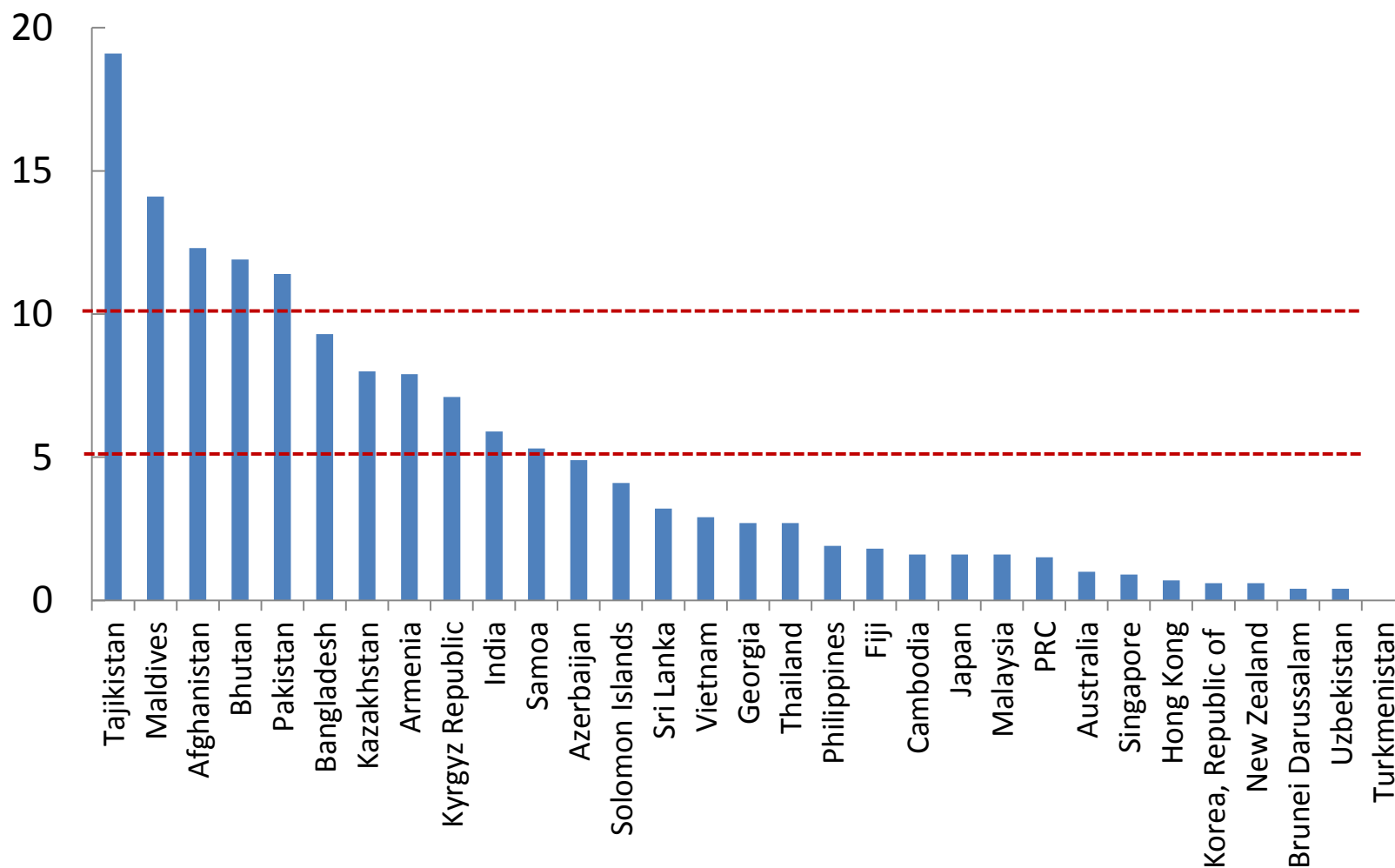
Panel Regression on Bilateral Imports, 2012-2014

Dependent variable: Log (Imports)	(1) SPS	(2) TBT	(3) SPS: Agriculture	(4) TBT: Agriculture
Importer	All WTO Members		Developing Asia	
Exporter	All WTO Members		All WTO Members	
Bilateral applied tariff AVE	-0.02***	-0.02***	-0.03***	-0.04***
SPS dummy	-0.03		0.42	
TBT dummy		0.33***		1.00***
<i>SPS/TBT dummy X exporter dummy</i>				
Developing Asia	-0.50***	0.20***	-0.81***	0.06
Non-DevAsia, Non-OECD	0.47***	-1.07***	0.81***	0.19
No. of Obs.	271,280	271,280	4,855	4,855
R-squared	0.38	0.38	0.27	0.27

Non-Performing Loans

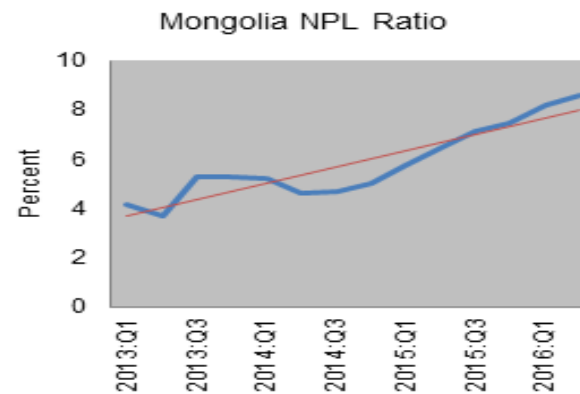
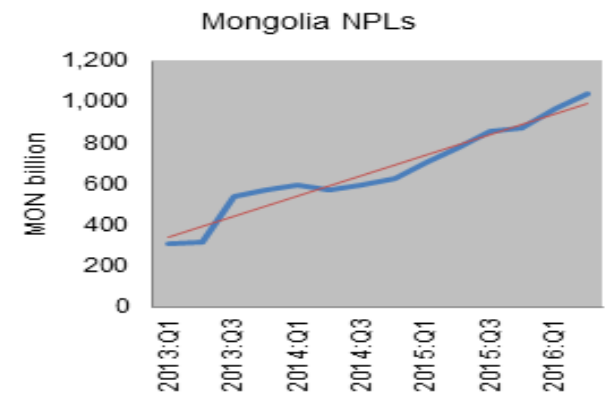
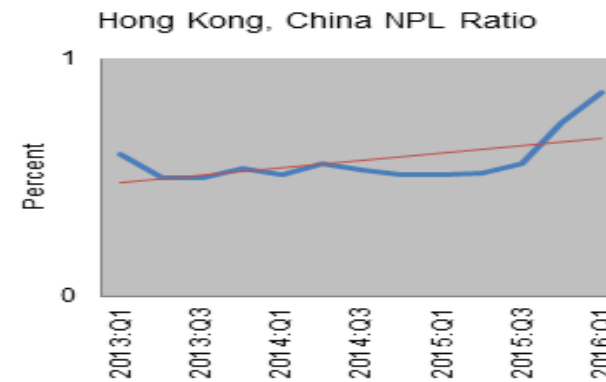
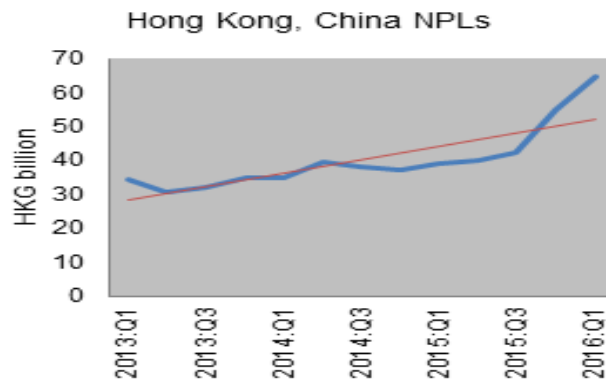
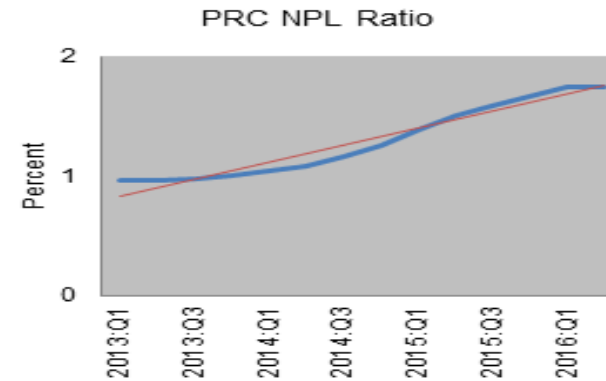
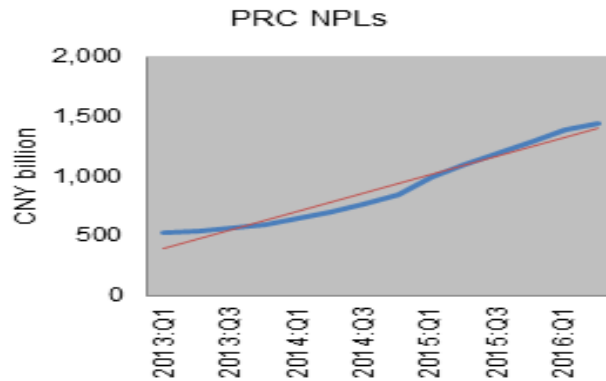


NPL Ratio of Selected Asian Economies

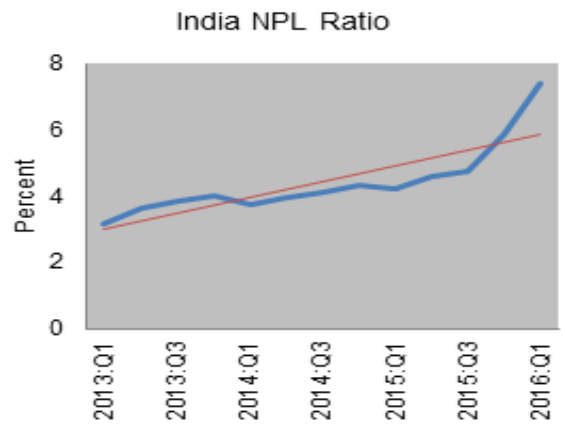
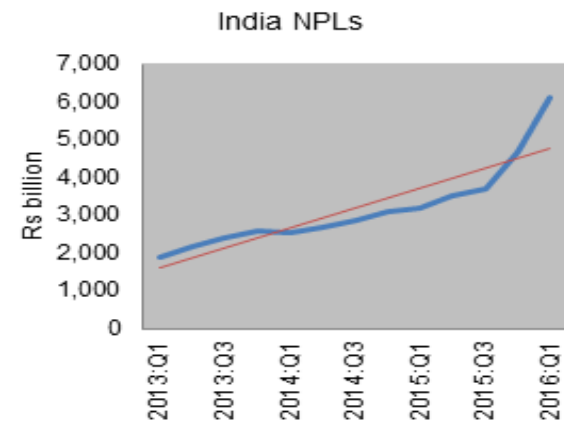
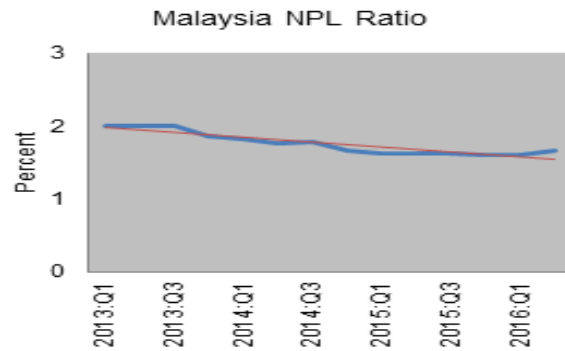
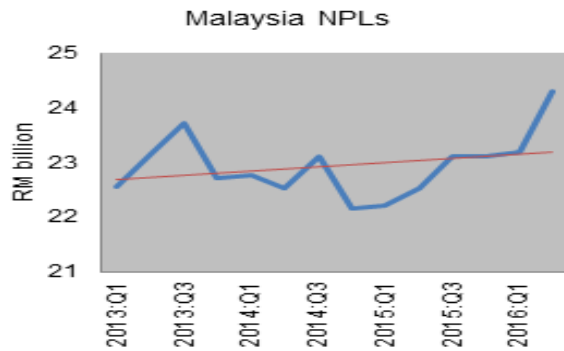


Source: World Development Indicators, World Bank

Recent pick-up in NPLs



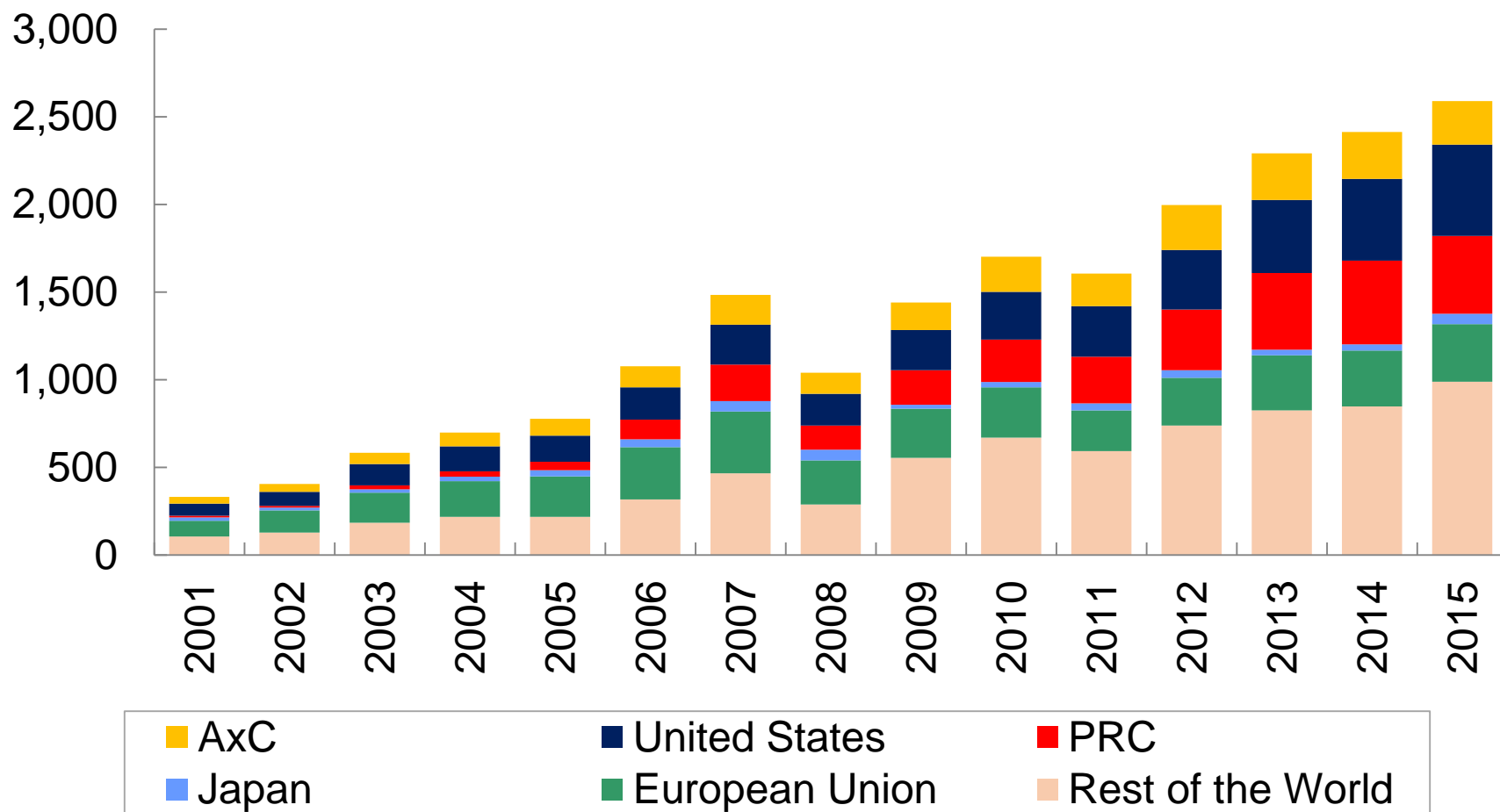
Recent pick-up in NPLs



Financial Integration and Spillovers



Cross-border Portfolio Asset Holdings by AXC (\$ billion)

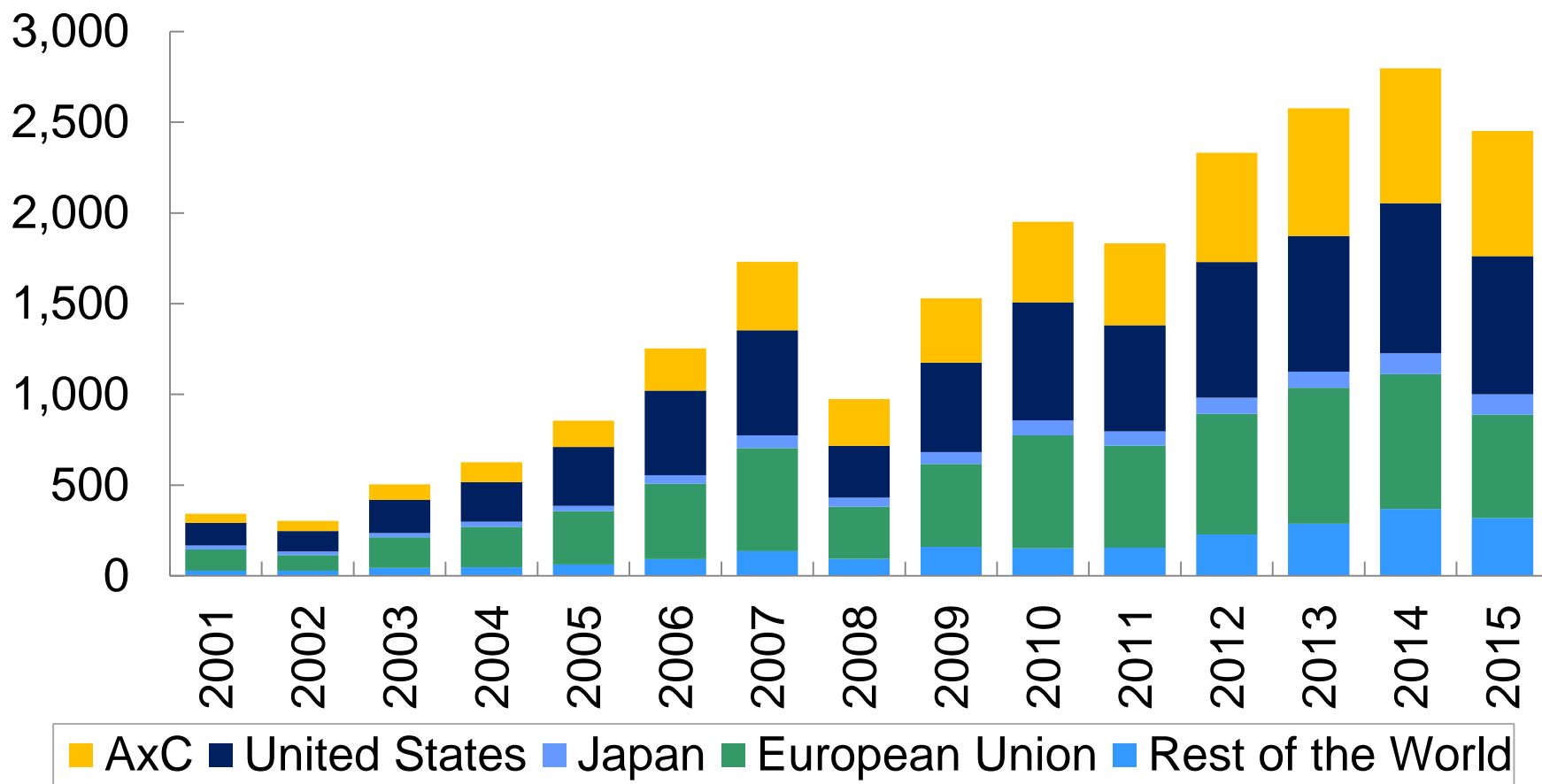


AXC = emerging East Asia excluding PRC, PRC = People's Republic of China

Note: AXC includes Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; and Thailand. The PRC is not included because it started reporting portfolio holdings in 1H2015.

Source: ADB calculations using data from Coordinated Portfolio Investment Survey, IMF.

Cross-border Portfolio Liabilities by EEA (\$ billion)

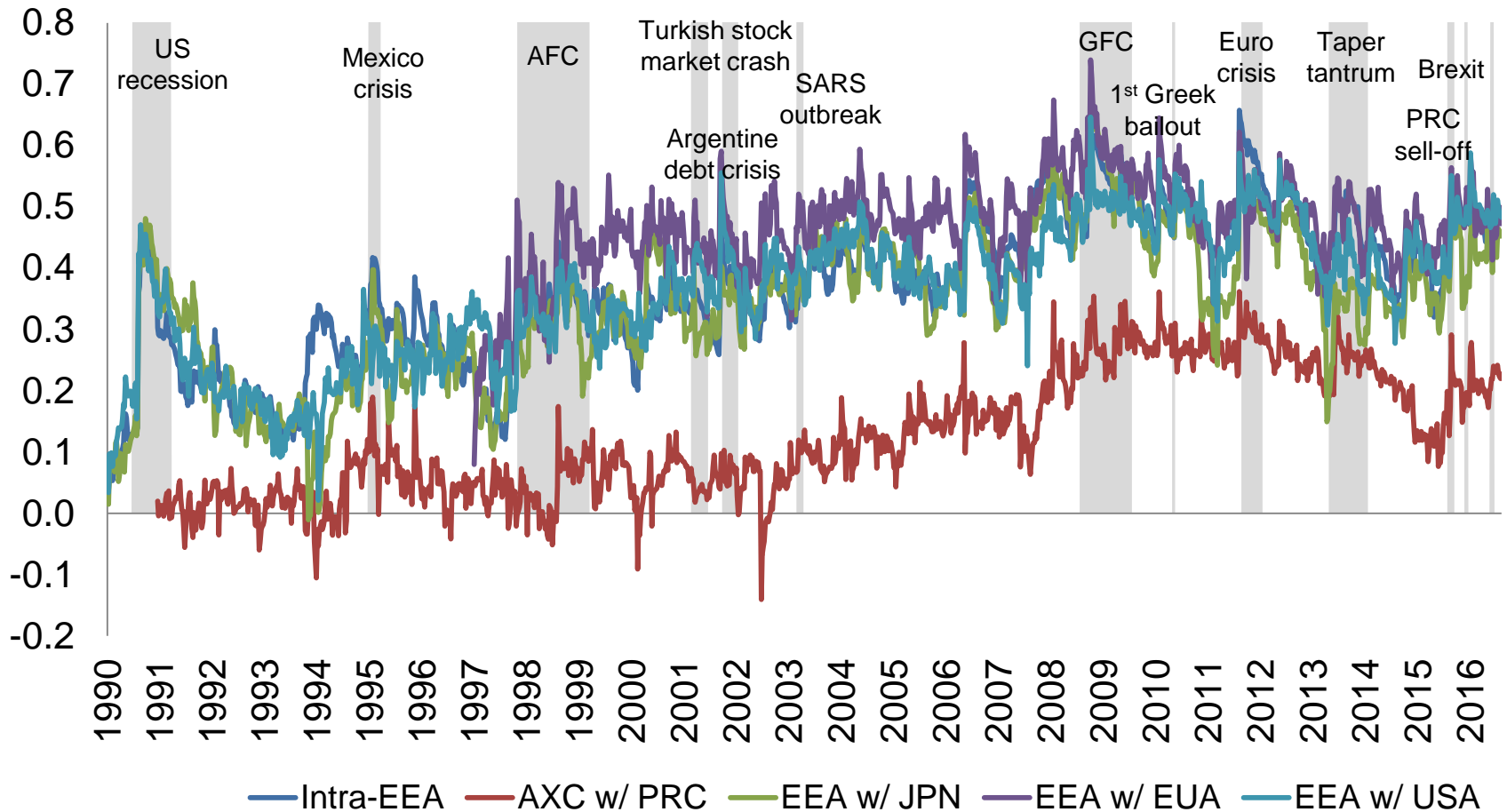


AxC = emerging East Asia excluding PRC, PRC = People's Republic of China

Note: EEA includes the People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; and Thailand.

Source: ADB calculations using data from Coordinated Portfolio Investment Survey, IMF.

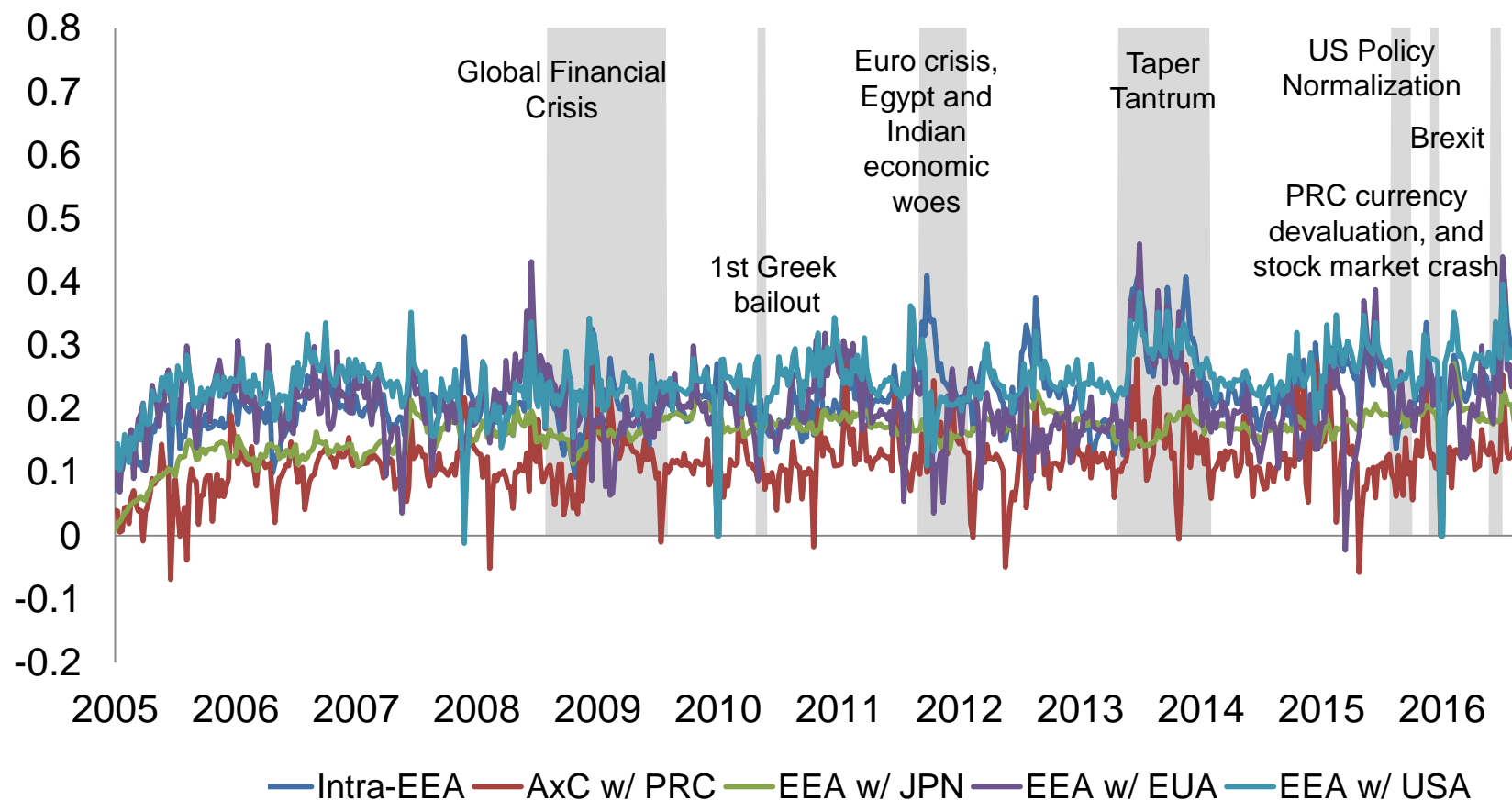
Conditional Correlations of Equity Returns in EEA



Note. Methodology based on M. Hinojales and C.Y. Park. 2011. Stock Market Integration: Emerging East Asia's Experience. In M. Devereux, et al., eds. *The Dynamics of Asian Financial Integration*. New York: Routledge. Emerging East Asia (EEA) includes ASEAN4, NIE4, and the PRC.

Source: ADB calculations using data from Bloomberg.

Conditional Correlations of Bond Market Returns in EEA



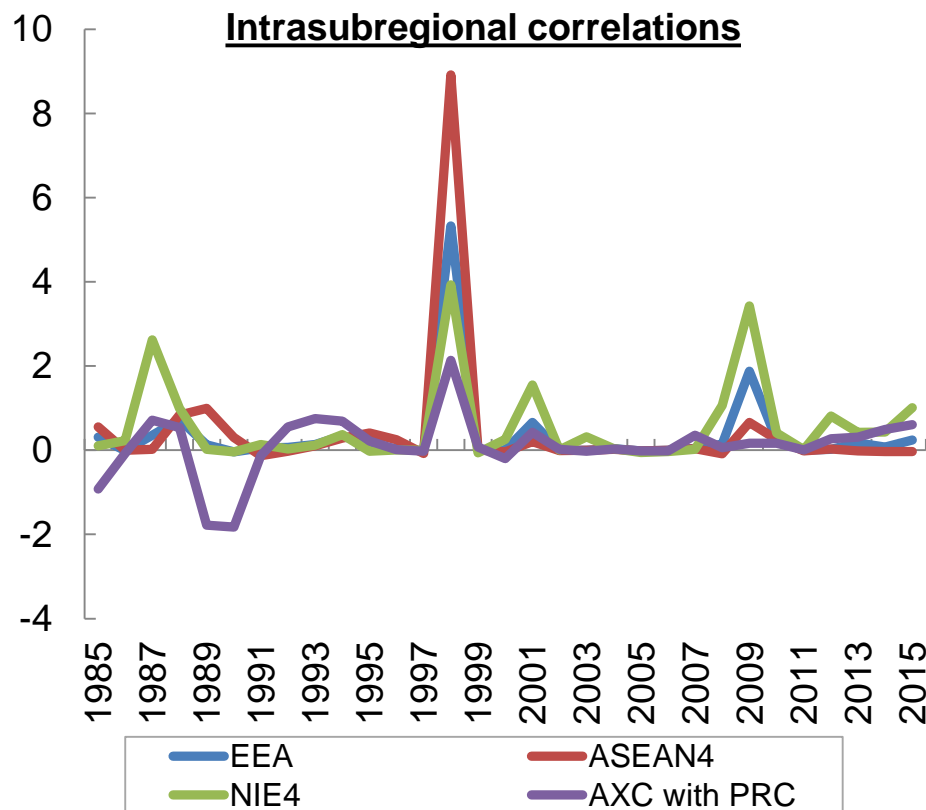
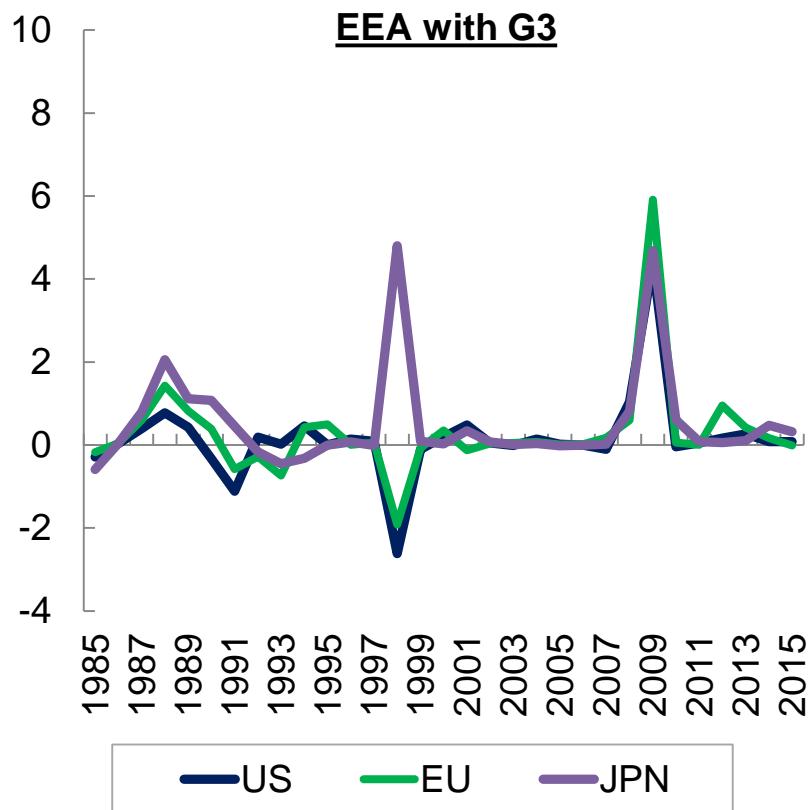
Note. Methodology based on M. Hinojales and C.Y. Park. 2011. Stock Market Integration: Emerging East Asia's Experience. In M. Devereux, et al., eds. *The Dynamics of Asian Financial Integration*. New York: Routledge.

Emerging East Asia (EEA) includes ASEAN4, NIE4, and the PRC.

Source: ADB calculations using data from Bloomberg.

Business cycle synchronization peaks during crisis times

Median Instantaneous Quasi-Correlations of Real GDP Growth Rates—EEA



AXC = emerging East Asia excluding PRC, PRC = People's Republic of China, EU = European Union, JPN = Japan, US = United States.

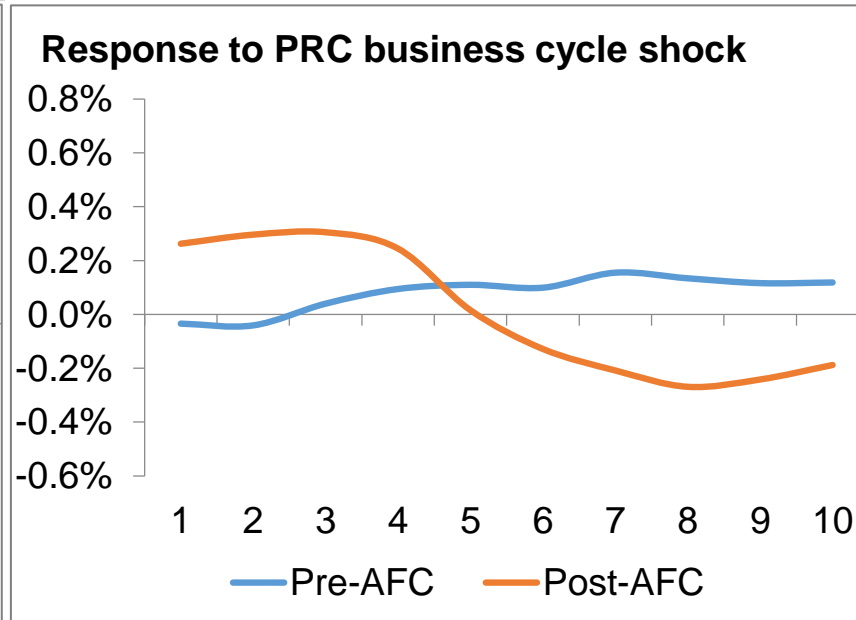
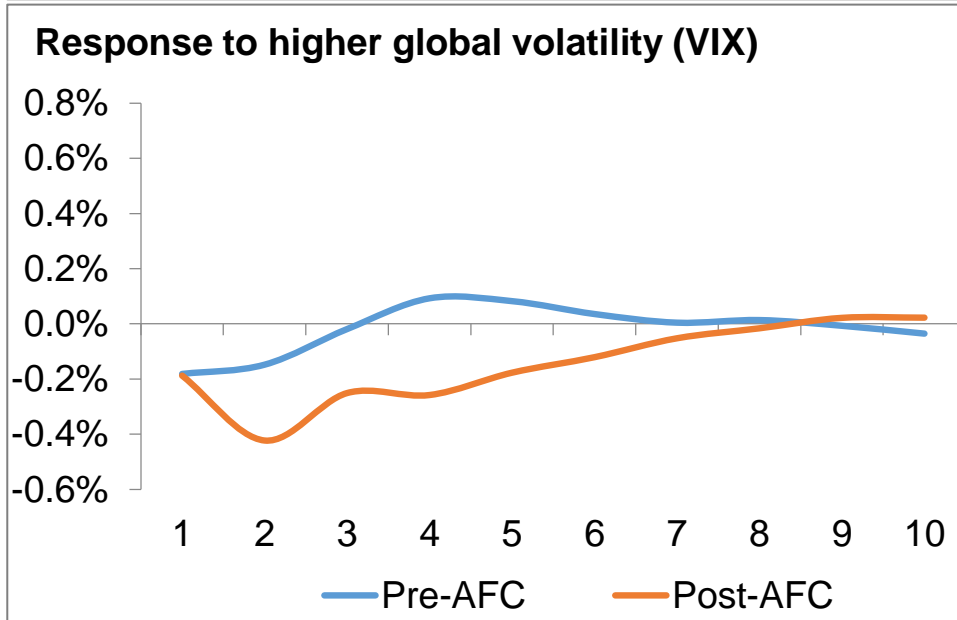
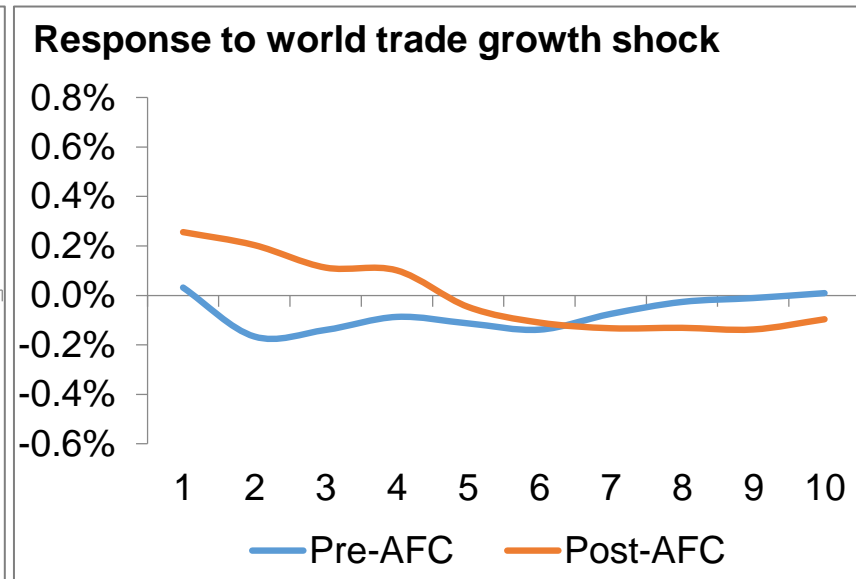
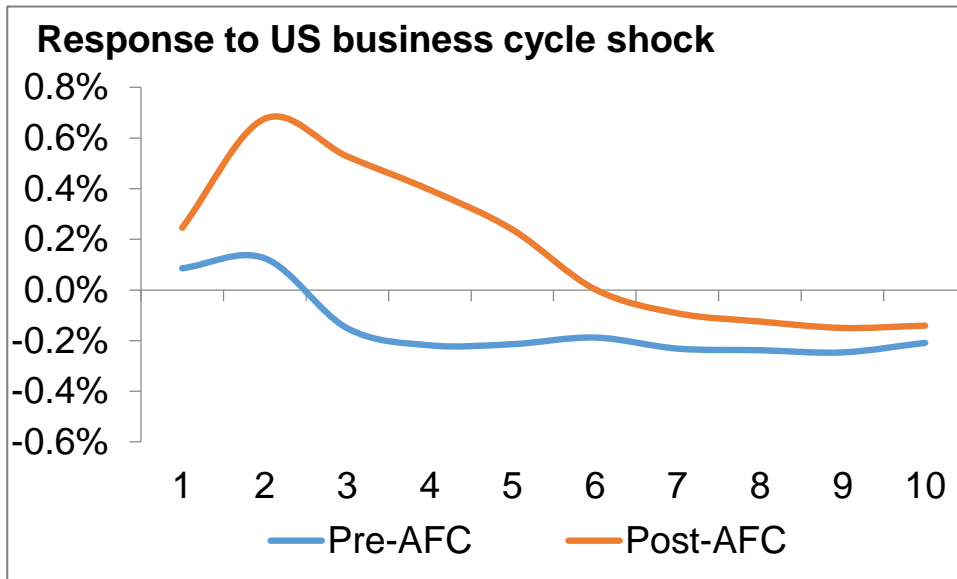
Note: AXC includes ASEAN4 (Indonesia, Malaysia, Philippines, and Thailand) and NIE4 (Hong Kong, China; the Republic of Korea; Singapore; and Taipei, China). Based on the methodology of Abiad et al (2013).

Source: ADB calculations using data from Oxford Economics and national sources.

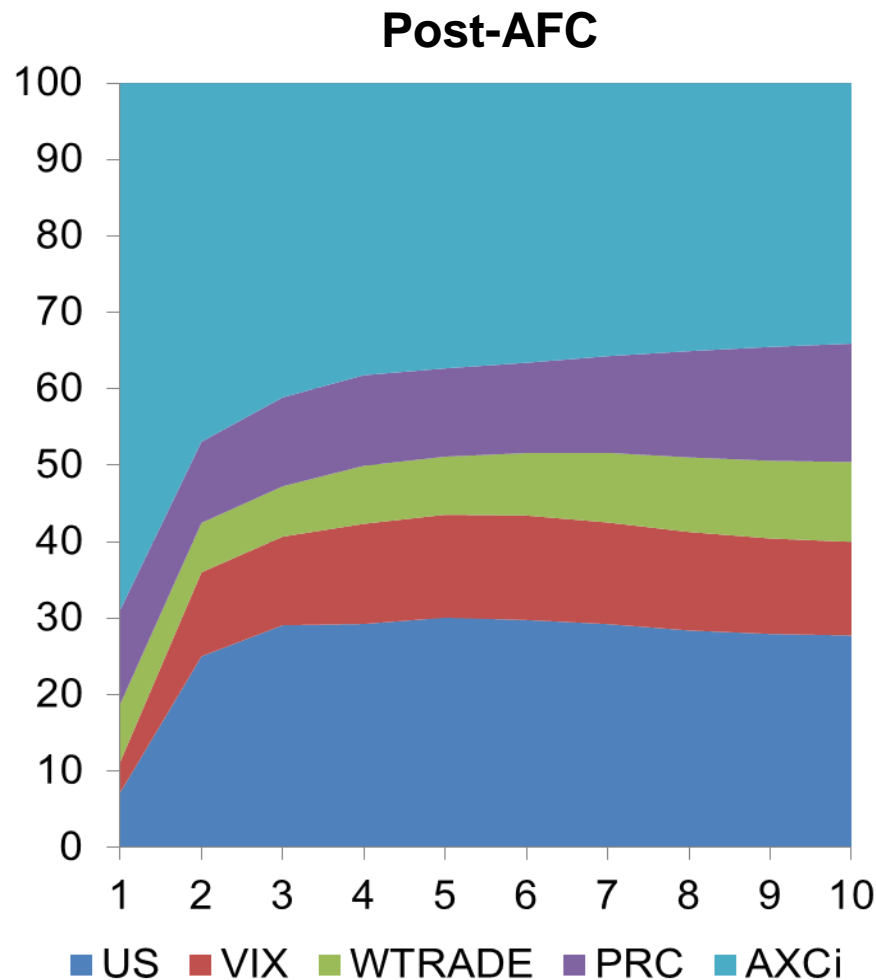
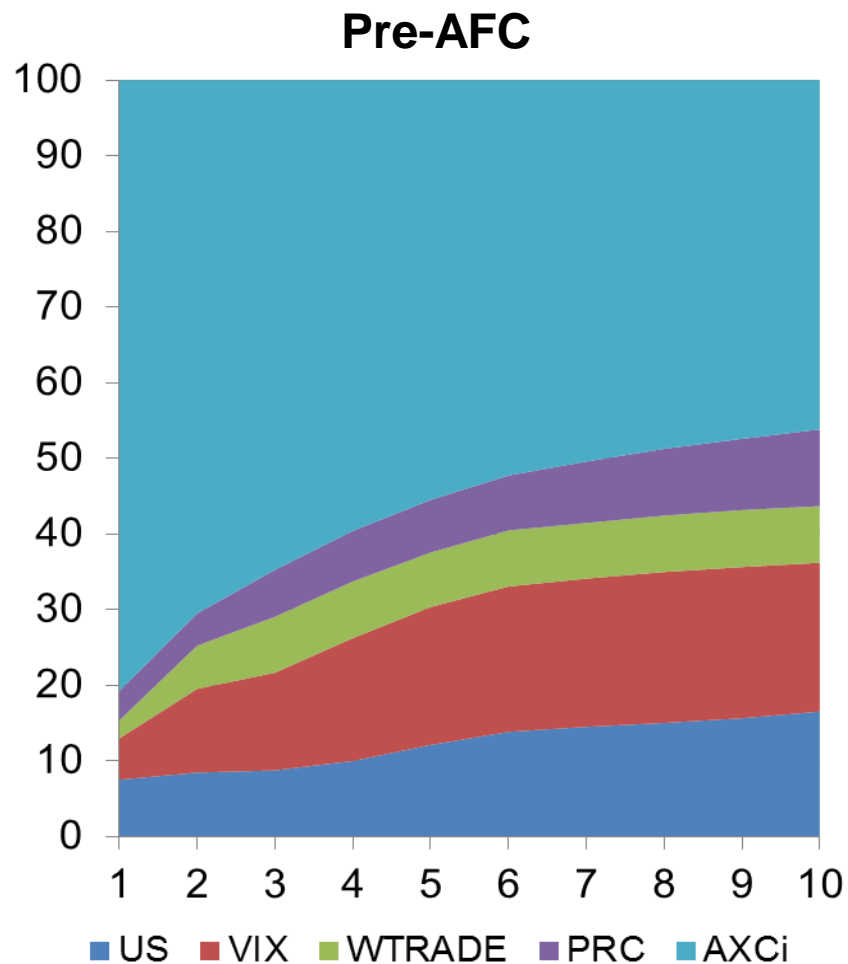
Asian Business Cycles and External Shocks



External Shocks: Impulse Responses of AXC business cycles

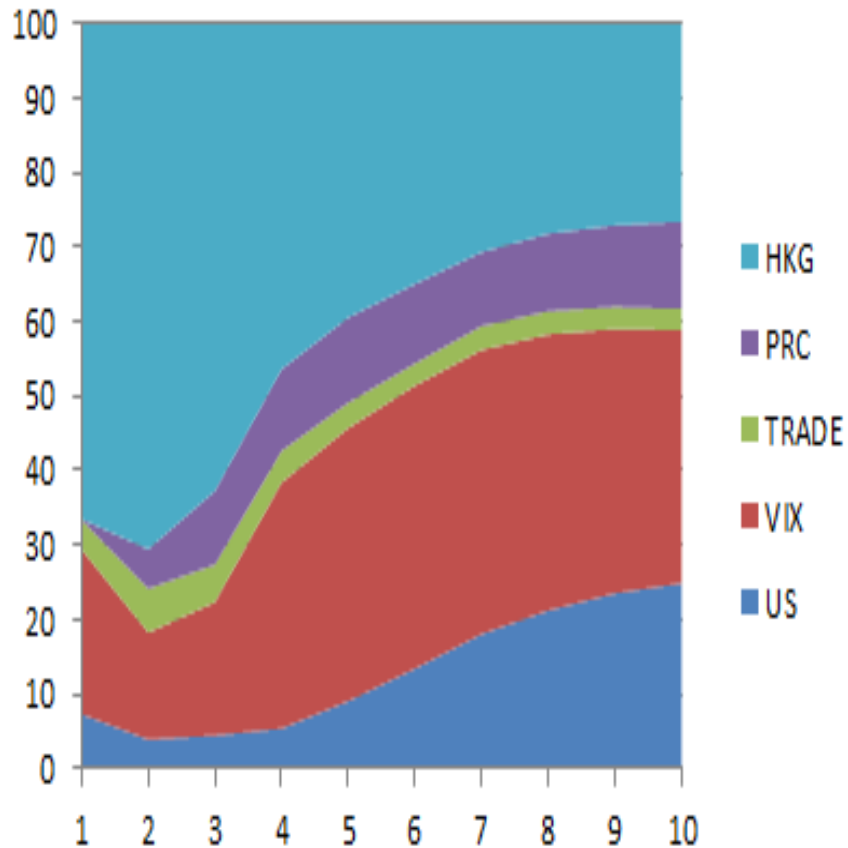


Variance decomposition of AXC business cycles

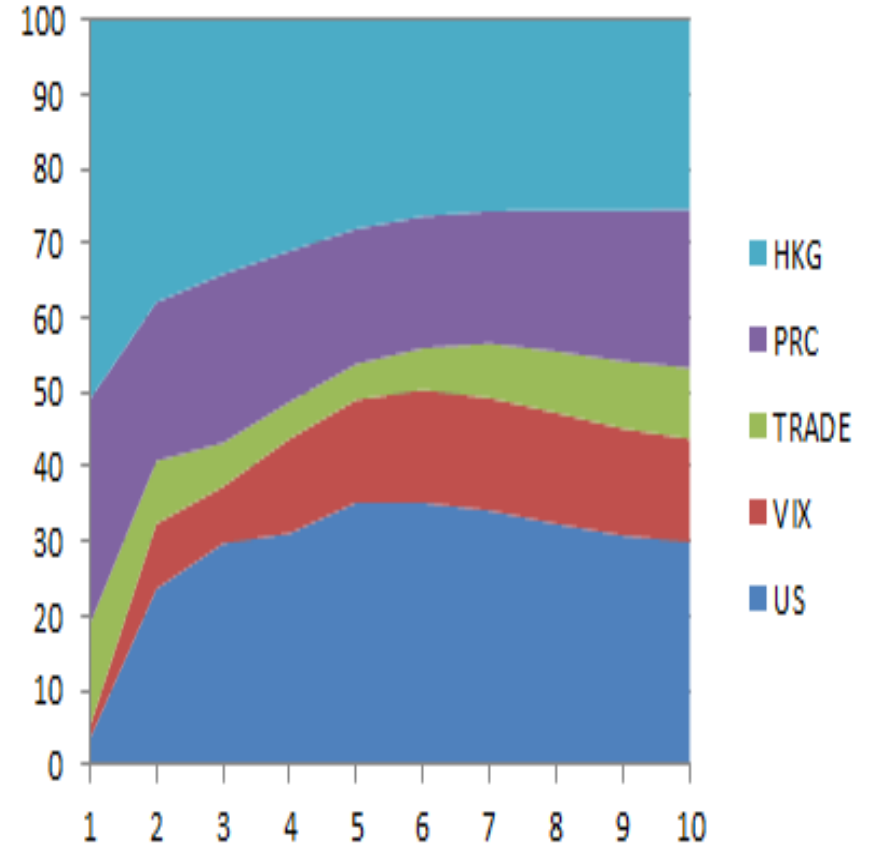


Variance decomposition of HKG

PRE-AFC

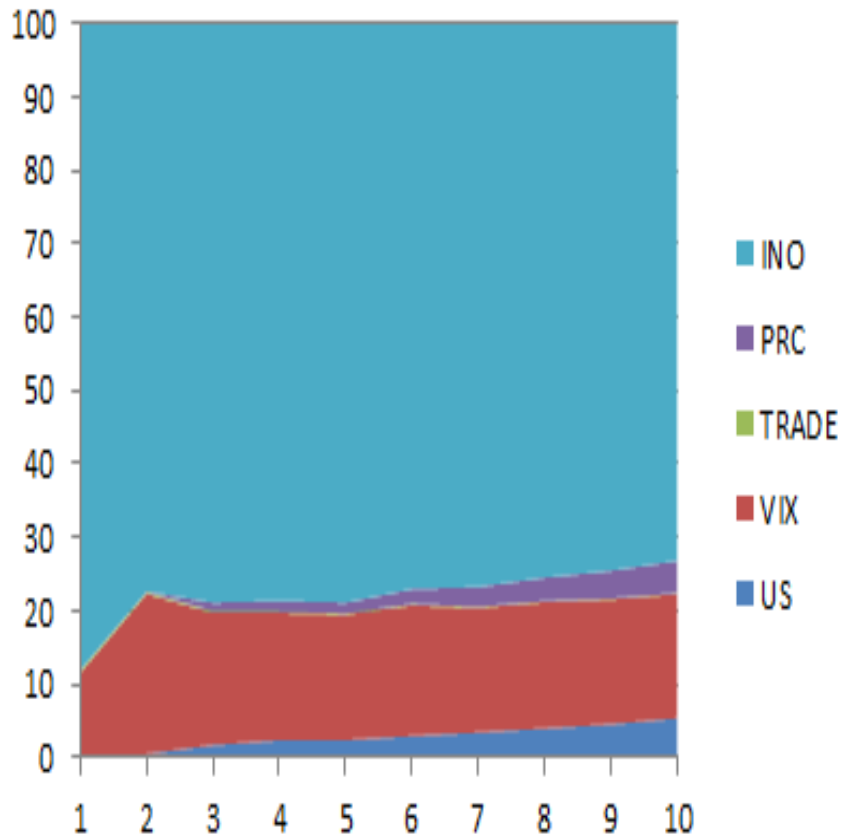


POST-AFC

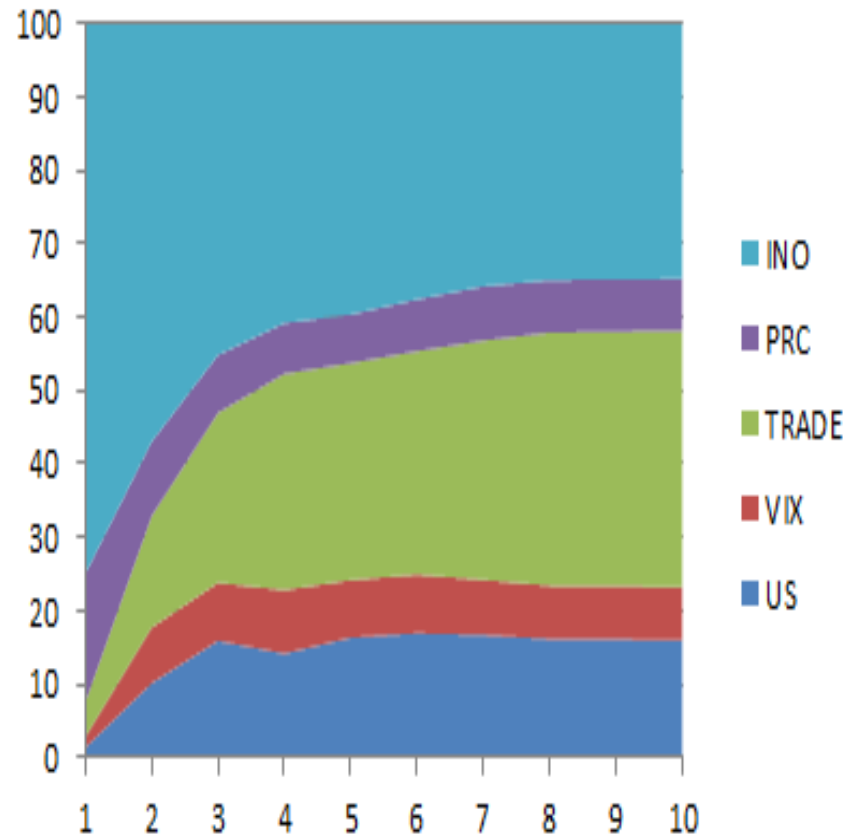


Variance decomposition of INO

PRE-AFC



POST-AFC

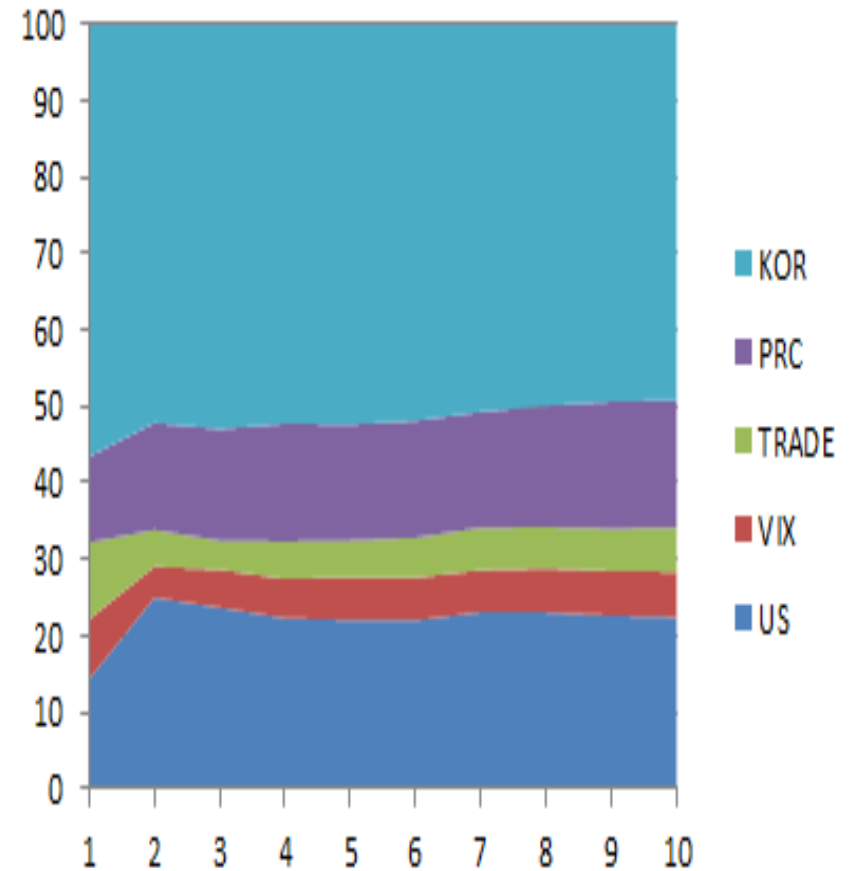


Variance decomposition of KOR

PRE-AFC

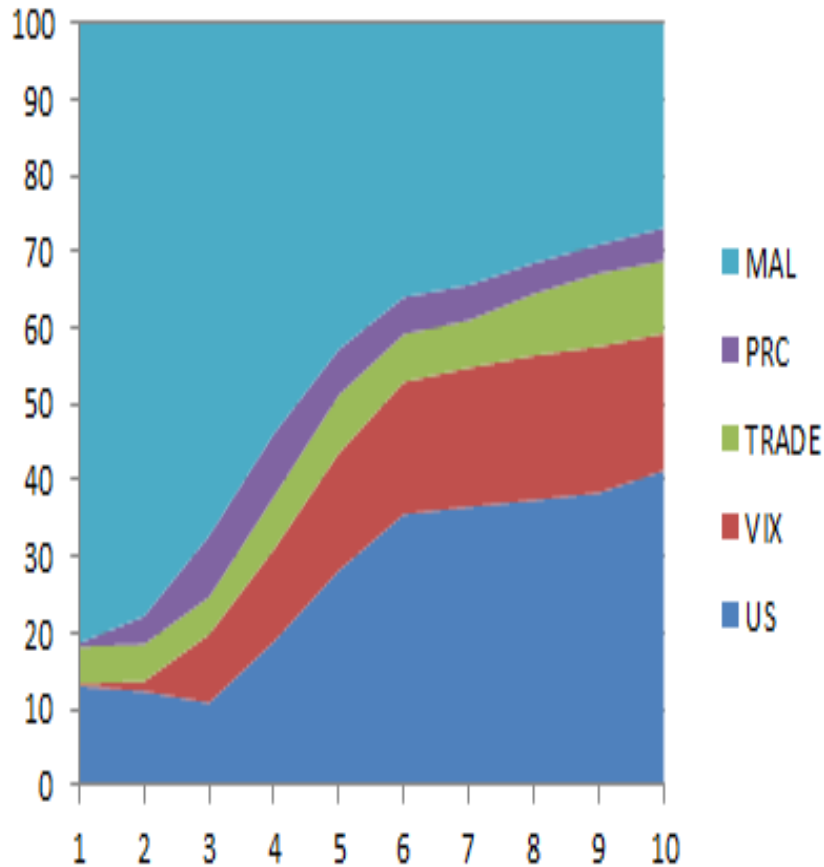


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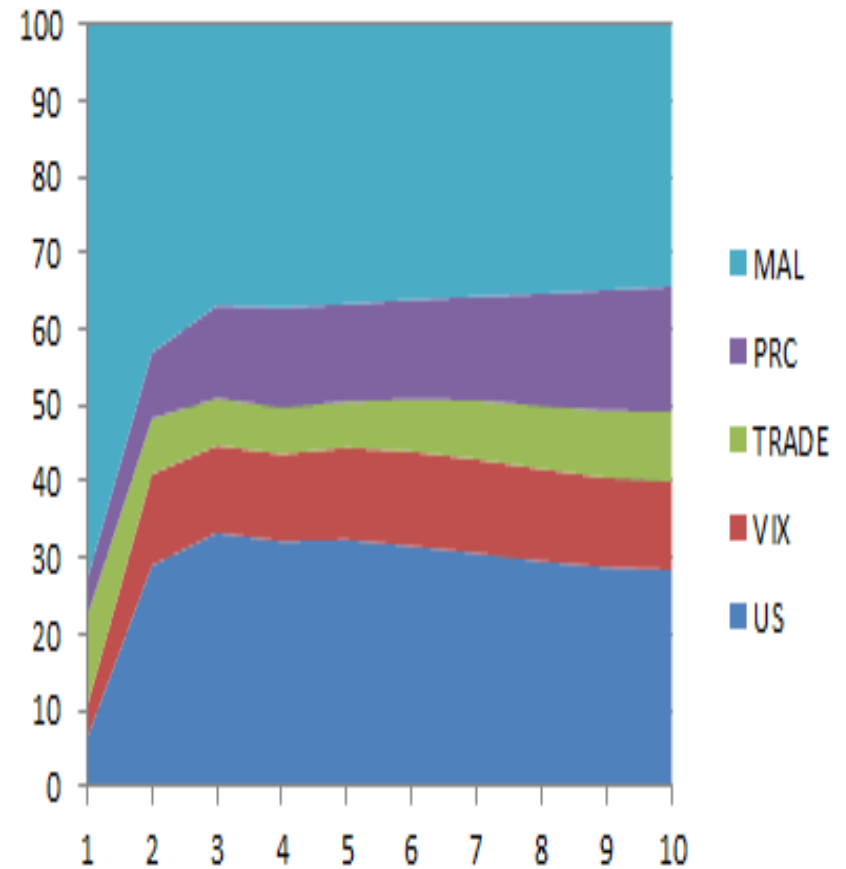


Variance decomposition of MAL

PRE-AFC

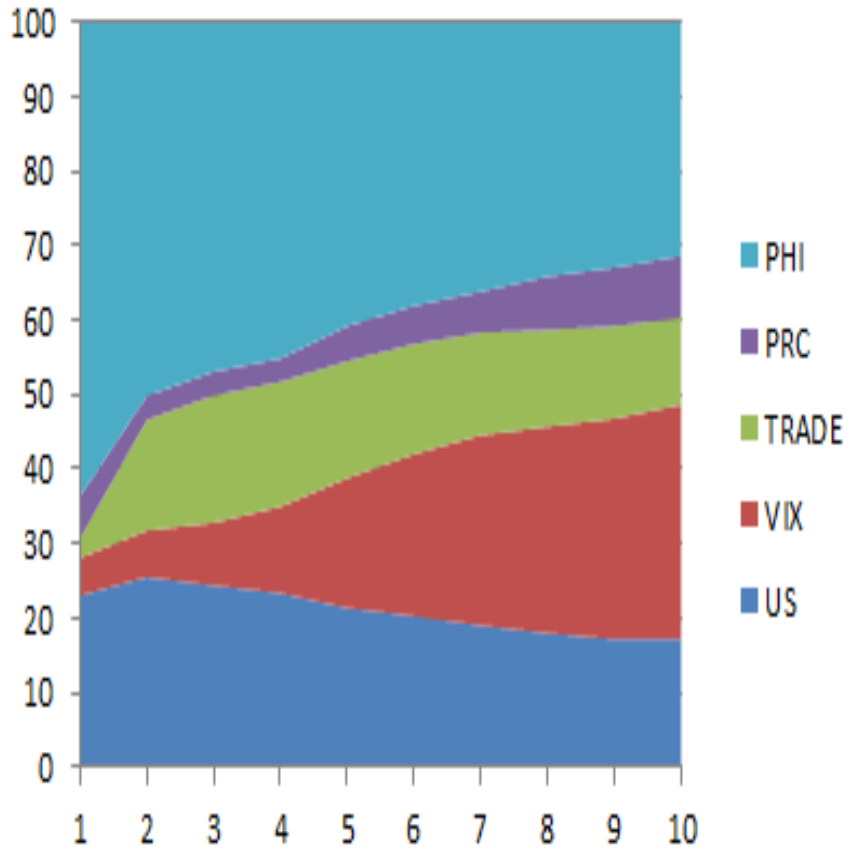


POST-AFC

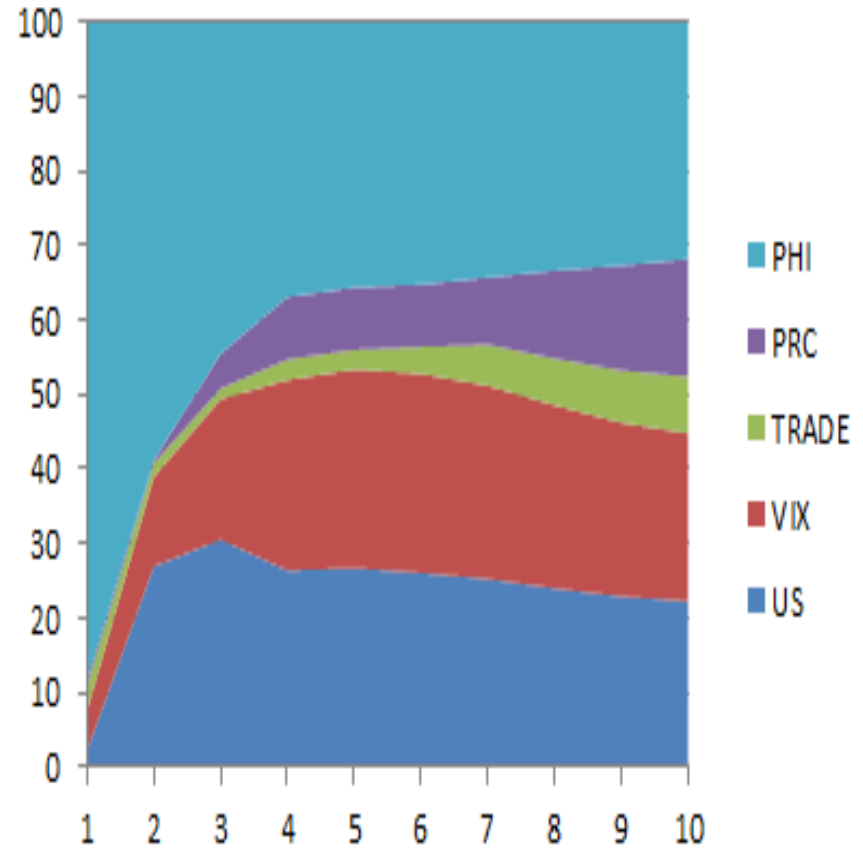


Variance decomposition of PHI

PRE-AFC

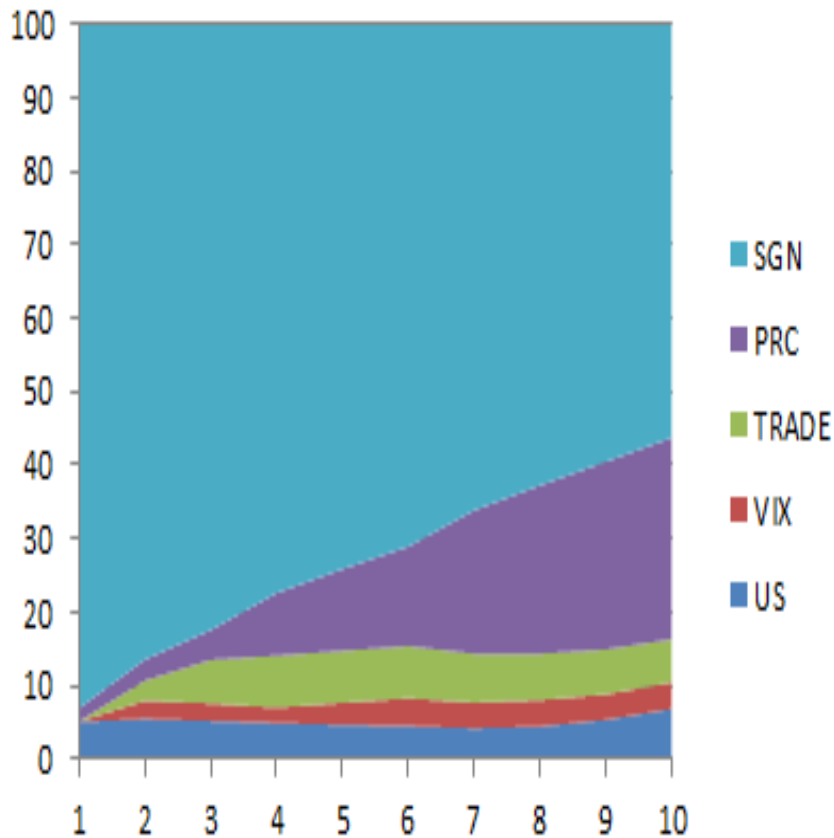


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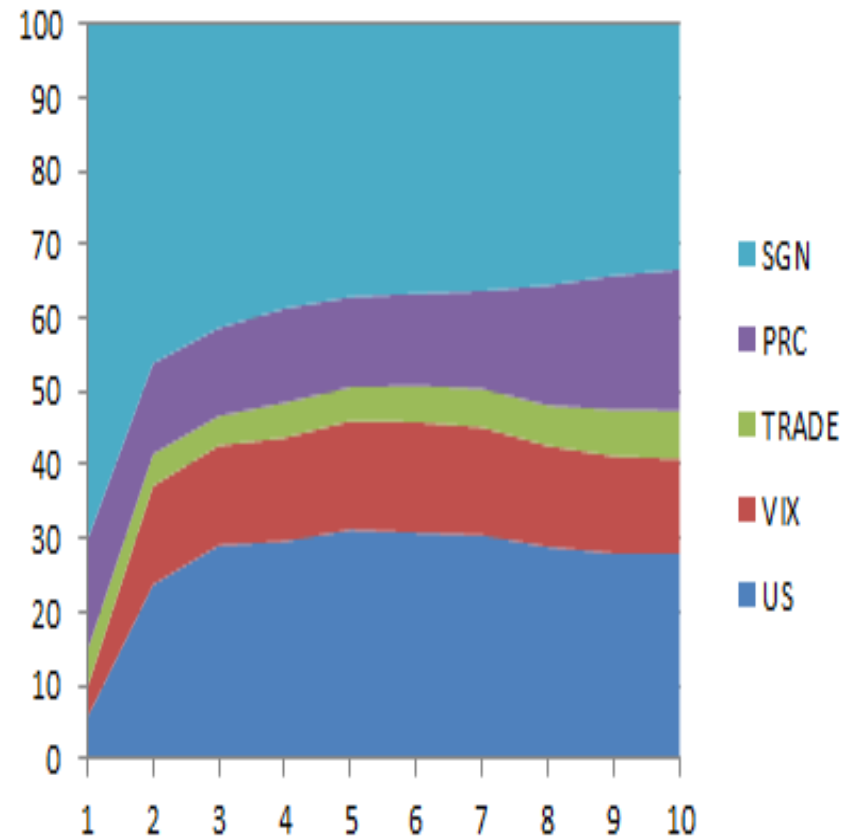


Variance decomposition of SIN

PRE-AFC

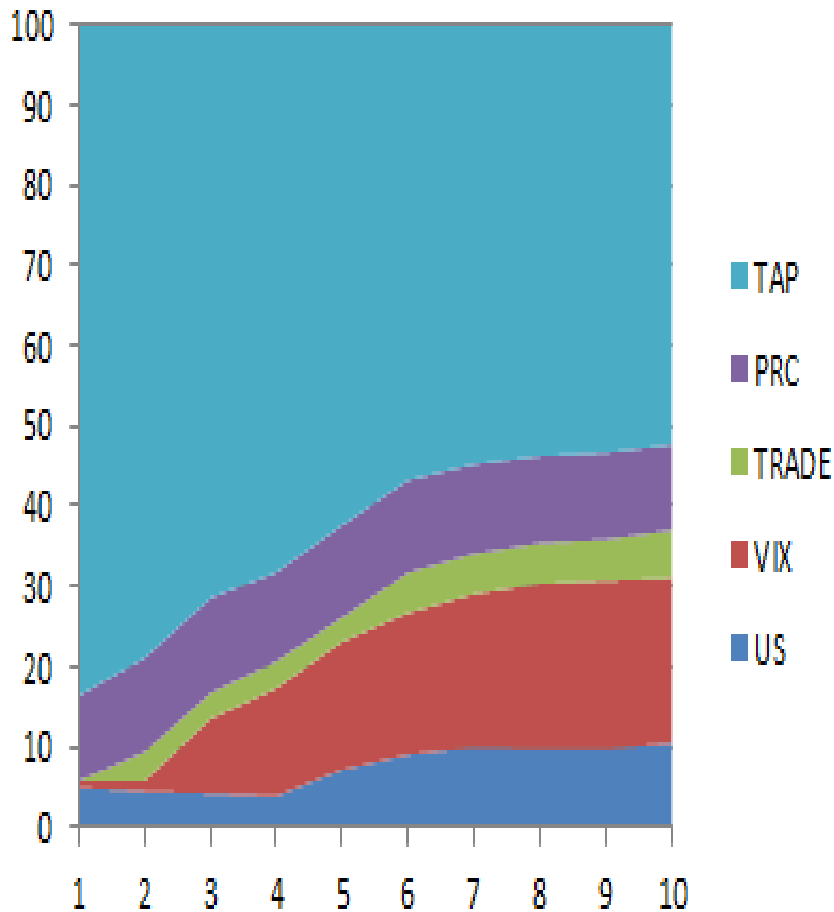


POST-AFC

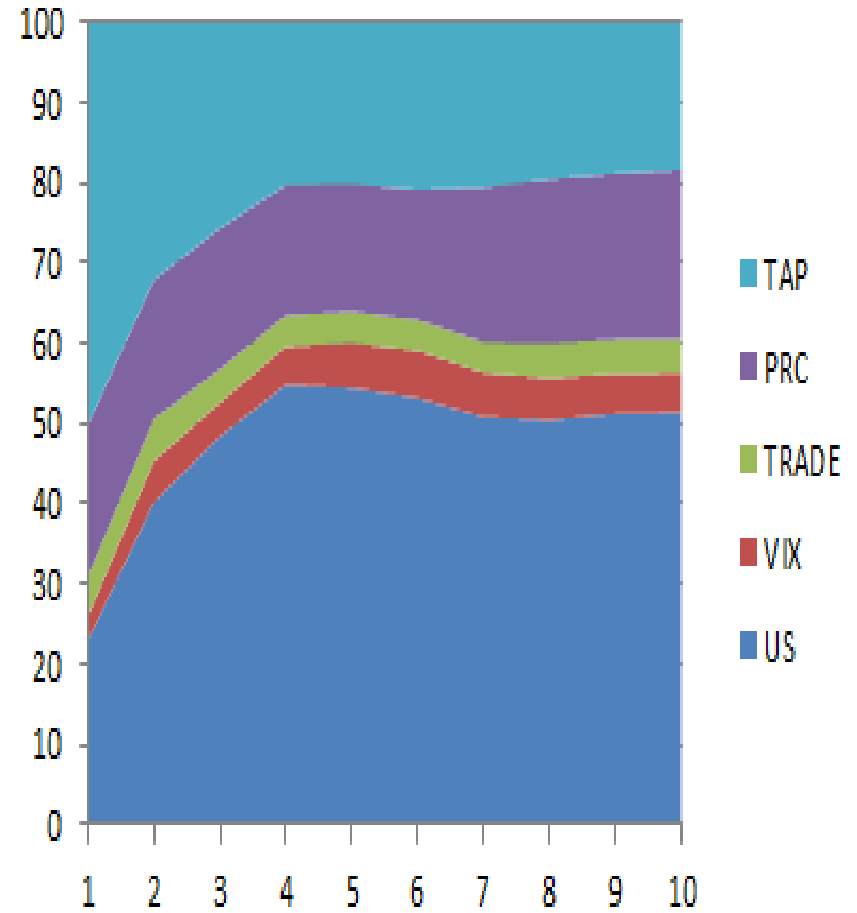


Variance decomposition of TAP

PRE-AFC

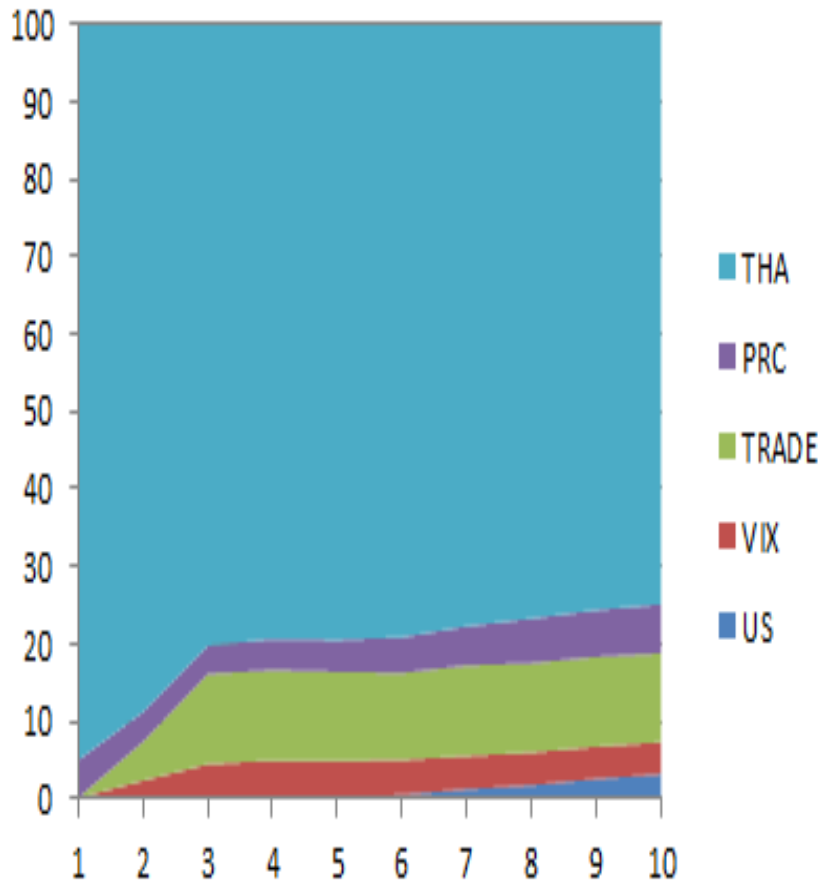


POST-AFC

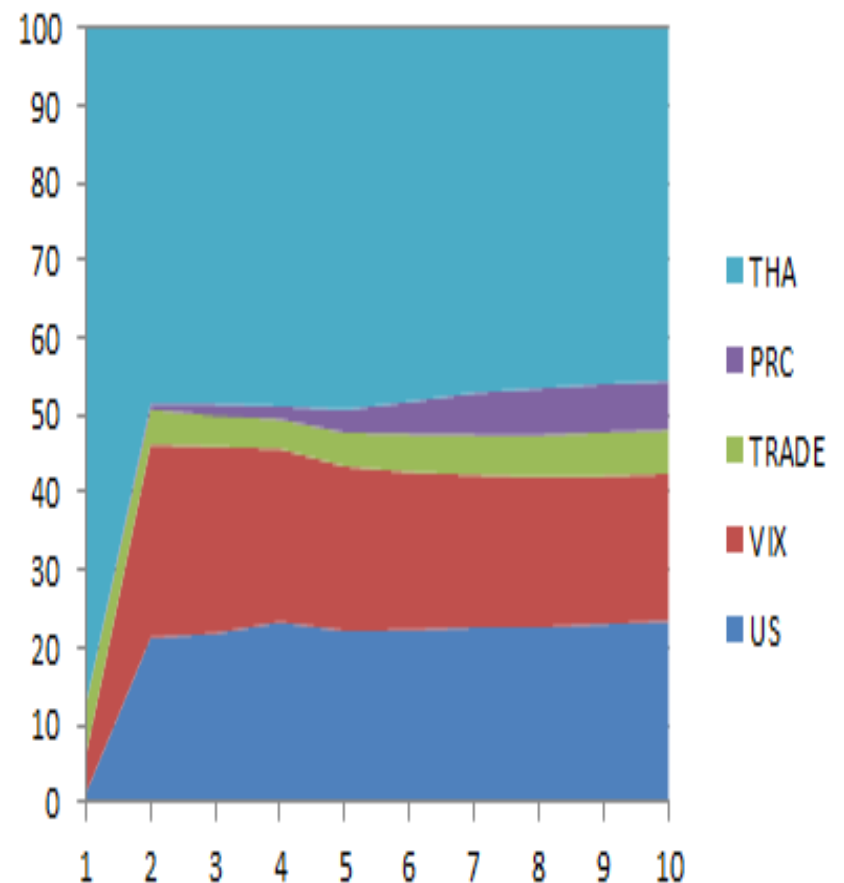


Variance decomposition of THA

PRE-AFC



POST-AFC



Thank you!

